Syrian Arab Republic
Syrian Private University
Faculty of Computer and Informatics Engineering

الجمهورية العربية السورية
الجامعة السورية الخاصة
كلية هندسة الحاسوب و المعلوماتية

Software Engineering Department

Senior Project (2)

Fall semester 2019-2020

TEASCHO Website

For connecting employees with educational institutes.

Completed by:

Nourhan Hafez

Waleed Katbeh

Under the Supervision of:

Dr.Baseem Barhoum

Contents

Diagrams Index

Abstract

In this project we present a website that will be added to the family of Educational systems. These systems take the advantage of connecting teachers with school administrators in order to develop the learning process. From that perspective we will build this website to help the schools and teachers at the same time. This help can be useful for schools that need to find teachers at the emergency cases or when a lake of stuff occurs, so this website will be helpful for them to find teachers in order to continue their educational levels, as for newly graduated students who need to find a job and start their carrier, so in this website we will gather them and provide a better way to make them contact through our platform. Our website will give The schools an ability to publish an advert which will contains the specific field of teachers they need, and then we will suggest the suitable teacher for them. On the other side teachers can provide us with their C.V and all other personal details, so we will add them to a list of teachers who want to have a job, and notify them in case of their field was demanded from any school.

1.Introduction
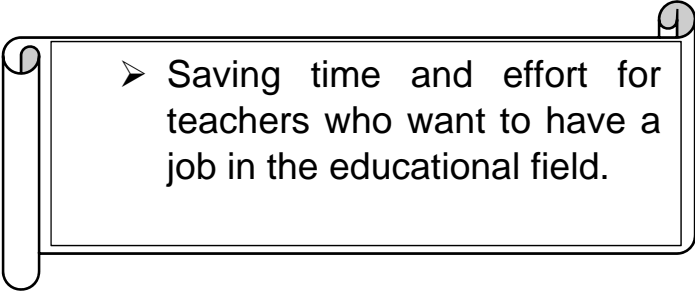
Schools and educational communities can be very different from other work environments for that reason you need to know about the educational system so you can be effective on the job. The education a system, first of all, may be viewed as a part of the total social system. It both reflects and influences the social and cultural order of which it is a part. However, in modern society, education is viewed as formal training. The educational system is expected to provide opportunity for social and economic mobility by selecting and training the most be able and industrious youth for higher-status position in society. The educational system places those with the greater abilities and training in higher positions and those with the lesser abilities and training in lower ones. Thus, education tends to generate vertical social mobility by increasing their earning power and by preparing them for higher-status occupation than that of their parents. The educational system whether industrial societies or in developing societies like India tend to create and maintain a broad division between elites and masses, between education for intellectual and for manual occupations. Such differentiation within the educational system is closely linked to the system of social stratification and mobility.
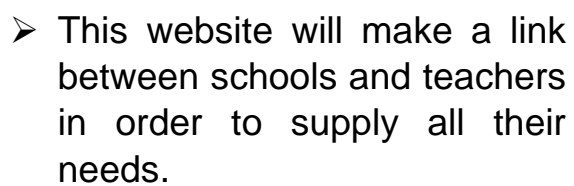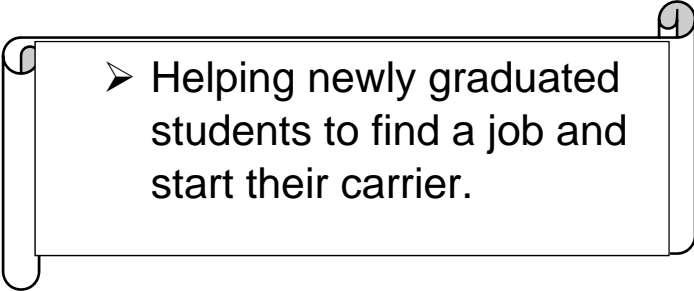
Figure (1): (School Management System Diagram)

1.1 Project goals and plans

The project Goals are:

> ➢ Saving time and effort for teachers who want to have a job in the educational field.

> ➢ This website will make a link between schools and teachers in order to supply all their needs.

> ➢ Helping newly graduated students to find a job and start their carrier.

Our plan is:

> ➢ To launch an innovative website with a great services and tools that will support either schools and teachers.

2.State of the Art

- ➢ Education plays a vital role in shaping successful people. It gives us the opportunity to become a productive member of a civilized society by acquiring all the necessary skills. We learn how to meet challenges and overcome obstacles. We learn how to become an integrated personality and maintain the perpetuation of our culture.

- ➢ Education lays the foundation stone for our future. An illiterate person can find it very difficult to cope with some aspects of life. Education expands our vision and creates awareness. It helps us develop a disciplined life and provides us with better earning opportunities. It enables us to know the world beyond our own surroundings. Education is also a prerequisite of the prosperity and modernization of any country.

- ➢ Educational Systems is a continuous 'process'. Education of human being begins at birth and it ends with his death. He leans throughout his life. There is no end to it. Education is much more than schooling. The child goes on reconstructing his experiences throughout the whole life. Instruction ends in the classroom, but education ends only with life.

- ➢ Educational Systems as social institution, plays a vital role in our society. The function of education is multidimensional within the school system and outside it. It performs the function of socialism. It is also an important part of the control mechanisms of society. Education is a necessity right from the simple society to modern complex industrial society.

- ➢ Most educational systems require candidates to obtain a government-issued certificate of license signifying that a candidate has completed required professional preparation and training. In most systems, professional preparation also includes a period of varying length in the field thro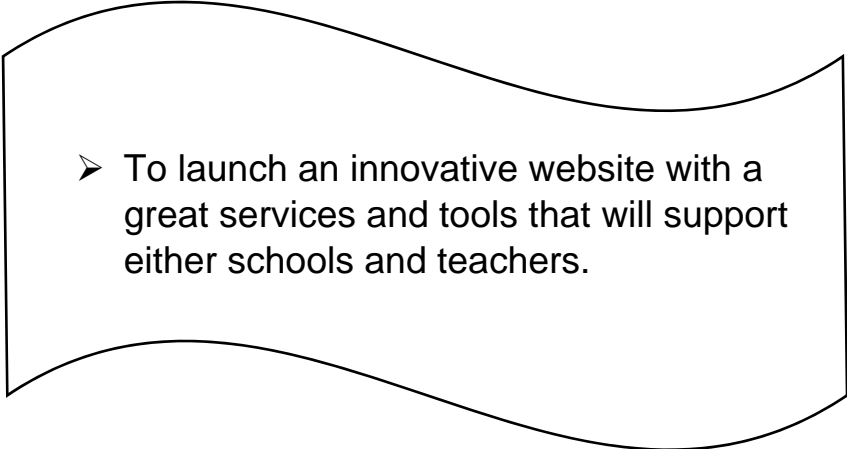ugh supervised clinical practice or student teaching. Many systems require some kind of performance exam or paper-and-pencil test for prospective teachers. In some systems, these tests are administered as part of a teacher-preparation program; in others, they are administered by the school upon employment or by the state. These commonalities reflect the global impact on the increased trend toward the professionalization of teaching.

2.1 Types of Education

Formal Education

- Schools/Institutions involved.
- Has hierarchical structure.
- Subject oriented.
- Uniform, full time and proper.
- Certification/Degree.

Informal Education

- practical adult learning.
- Diversity in methods and content.
- Mobilizes local resources.
- Built on learner's participation.
- Real life examples of learning

Nonformal Education

- very long process.
- Learning from experience.
- Learning from home.
- Learning from environment.
- Learning from work.

2.2 Online Job Application Systems

Online Job Application systems are a technology-based strategy for employers to manage job applications, especially when there are many job candidates. Job application systems use software that allows candidates to electronically scan resumes, and store them in a database that's easily accessible by hiring managers and recruiters. Using keywords and data mining, employers can home in on candidates who are the best fit for them. As convenient as job application systems may be for employers, they can add hurdles to the application process for job seekers who've worked hard on customized resumes and cover letters, only to see them disappear into the ether.

What employers use job application systems?

- ❖ Estimates of employers that use job application systems range from 60 to as much as 90 percent. Which may not be surprising, given the huge increase in online job search platforms and job boards, as well as the growth in software companies marketing applicant tracking systems. The top applicant tracking systems are used by thousands of companies across all industries. That said, it's in your best interest to understand how to "crack the code" for online job application systems as much as possible, to get ahead of the competition.
- ❖ Many employers use Online Job Application systems (OJAS), also known as talent management systems, to process job applications and to manage the hiring process. They provide an automated way for companies to manage the entire recruiting process, from receiving applications to hiring employees.

How Applicant Tracking Systems Work?

- ❖ When applicants apply for a job online, their contact information, experience, educational background, resume, and cover letter are uploaded into the database. The information can then be transferred from one component of the system to another as candidates move through the hiring process.
- ❖ The system allows company recruiters to review the applications, send applicants automated messages letting them know their applications have been received, and give online tests. Hiring managers can schedule interviews and mail rejection letters through the ATS. Finally, human resources personnel can use the same information to put individuals on the payroll once they are hired. These integrated systems streamline the recruiting, application, and hiring process for employers.

2.3 Advantages of using Job Systems

Below are the reasons that make Online Job Application Systems such an attractive option:

✓ **Tracking the Process:**

Applicant tracking systems allow companies to track where candidates found the job posting, whether on a job board, directly from a company website, through a referral, or from another source. This can be important information that allows employers to focus their recruiting on the areas where the data shows they have the most success while reducing or eliminating efforts in areas that show little results.

✓ **It's Immediate:**
Most job posts – and replies – appear in real time. This can help you either increase your efforts to attract more candidates, a different set of candidates (early- instead of mid-career professionals, for example) or even stop candidates from applying if you've already found the right person for the job.

✓ **You Can Reach a Bigger Audience:**
The internet is a global phenomenon, with more and more users gaining access every day, while in most developed countries, internet usage is extremely high. Therefore, you are gaining exposure to a huge potential pool of applicants.

✓ **You Can Make Your Job More Dynamic:**
Posting a job online or via social media platforms gives you a chance to be more creative with your ad; for instance, you could create and attach a short video showing off the benefits of working for your company. Indeed, your use of technology can actually say a lot about your company culture, helping to attract specific types of candidates in the process. Businesses that use technology in such a way prove that they aren't afraid to innovate and that they are open to new and interesting ways of doing things.

✓ **It's Flexible:**

The internet gives you plenty of flexibility with regards to controlling your posts and the applications you receive. If you post in a newspaper and want to amend the job advert, though, you would likely need to pay for an entirely new ad. With online posts, most platforms will allow you to edit, update or remove your job post whenever you wish.

✓ **It's Durable:**

Newspapers and other forms of printed media have a very limited lifetime, dependent on their publishing cycle. Most classified publications have a biweekly publishing cycle, meaning that your ad will only be seen for that relatively small amount of time. Online job posts, on the other hand, will stay alive until the author or the host website removes it.

✓ **It's Accessible:**

No matter where you are in the world – if you have an internet-enabled device and connection, then you can perform all those management tasks described above. You can modify your job posting, see how many replies you have and even communicate with candidates directly.

✓ **It Expedites the Hiring Process:**

All of these advantages directly lead to the biggest one of all: a shortened hiring process. You can shortlist (or even directly contact) the best applicants as their applications come in, with the availability of integrated ATS software even doing most of the sifting work for you.

✓ **Specialist sites:**

- As online recruitment sites have surged in popularity, more and more specialized web sites have emerged. You can search out online recruitment sites that specialize in a particular profession, geographic region, or even a specific city or community.

- These sites generally have more detailed job postings and are usually favored by employers who do not want to deal with the huge quantity of resumes that typically come in from one of the larger sites.

- Don't forget, that the market is two-way. Not only do you want to find a job before your peers, but your prospective boss is keen to get hold of the best quickly, too, before their competitors. Online guides are provided to give insights into motivating the most qualified candidates to respond to your company's job postings and how to prepare compelling job descriptions to target qualified candidates.

- As a job seeker, finding a specialized recruitment web site is relatively easy. You can search using the name of your profession, or check with one of your industry's trade or professional organizations. Many of these groups maintain their own postings of job openings and if not they likely can refer you to an appropriate online recruitment site.

2.4 Disadvantages of using Job Systems

⊠ **It Can Be Difficult to Measure Effectiveness:**
Not all online recruitment services offer an in-depth analysis of your posting; therefore, it can be hard to figure out what is and isn't working and how to optimize your ad. Of course, this is a common problem in offline recruitment, too, but it's worth remembering that just because you've posted an ad online, it doesn't mean that you will always have access to reams of metrics and supporting data.

⊠ **It's Informal:**
For some roles, companies perceive that online job postings – particularly on social media – can give off the wrong image of their company. This is particularly true for executive-level roles, particularly at firms (or in industries) that have a strong corporate or professional culture. It's not uncommon, for instance, for high-caliber firms to advertise C-level roles in reputable print publications such as The Economist or the Financial Times.

⊠ **It Attracts Bad Candidates:**
As previously mentioned, it's very easy for people to apply for jobs online; this can potentially be a negative point as well, though. Posting a position online usually results in hundreds of applicants, many of whom will not be suitable for, or serious about, the role, thus diluting the quality of your talent pool.

⊠ **There's a Lot of Competition:**
The main downside to following trends is that everybody else is doing the same thing. As a result, your post can quickly become buried under a mountain of other job offers, forcing you to either pay more for extra exposure or risk not being seen. When it comes to social media, you're also at the mercy of Facebook or Twitter's algorithms, meaning that who you target is essentially in the hands of somebody else.

⊠ **There Could Be Lost Work Hours:**
If you are receiving large volumes of applications that need to be pruned, there are technical issues with the platform you are working with, or the job ad itself constantly needs to be changed, then the process can start to become difficult to manage. This either detracts you from other aspects of your own job or requires somebody else to supervise the process more closely.

⊠ It Attracts Fraudulent Applicants:

Some applications might be fake, in order to get information about the company or hiring officer, while spammers might use the information posted online to promote a service or product to your company. If you give away too many details in your ad, malicious hackers can even use the information to potentially gain access to your company's IT systems.

⊠ High Volume of Responses:

Because anybody in the world with internet access could potentially see your job posting, you may be inundated with responses, many of them from unqualified candidates. You'll have to take time that you may not really have to wade through each application. To avoid unwanted applications, you'll need to be careful as to how you word your job posting and be as specific as possible about the job duties and the qualifications you're seeking.

⊠ Logistical Problems:

What if the best-qualified candidates for your opening live halfway around the world? If that's the case, you'll have to consider conducting screening interviews by telephone or email, which limits the expense of an in-person meeting. If the process moves forward, it poses the dilemma of whether it is really worth bringing the person in for an interview. If it turns out the candidate wasn't serious about relocating, you've wasted valuable time and possibly money.

⊠ Technology Issues:

If your hiring process involves filling out an application, you may miss out on qualified candidates who would rather send a resume. Some candidates may not want to take the time or may not be confident enough with the security of an online application, especially if they are attempting to complete a lengthy application with a mobile device. There's always the possibility that your application system may operate slowly or lose information during the submission process.

⊠ Poor Website:

In many cases, candidates who see your job posting will be relying on your website to gain additional information about your company, its mission and method of operation. If your website is poorly designed or out of date, the candidate may not even bother to respond.

⊠ Too Impersonal:

Because much of the online recruiting process may involve emails and possibly telephone interviews, it can be viewed as somewhat impersonal. Without the opportunity for the employer to hold multiple in-person interviews, it can be difficult to determine if the candidate will be a good fit for the company and its culture.

2.5 Top 5 Best Job Search Websites
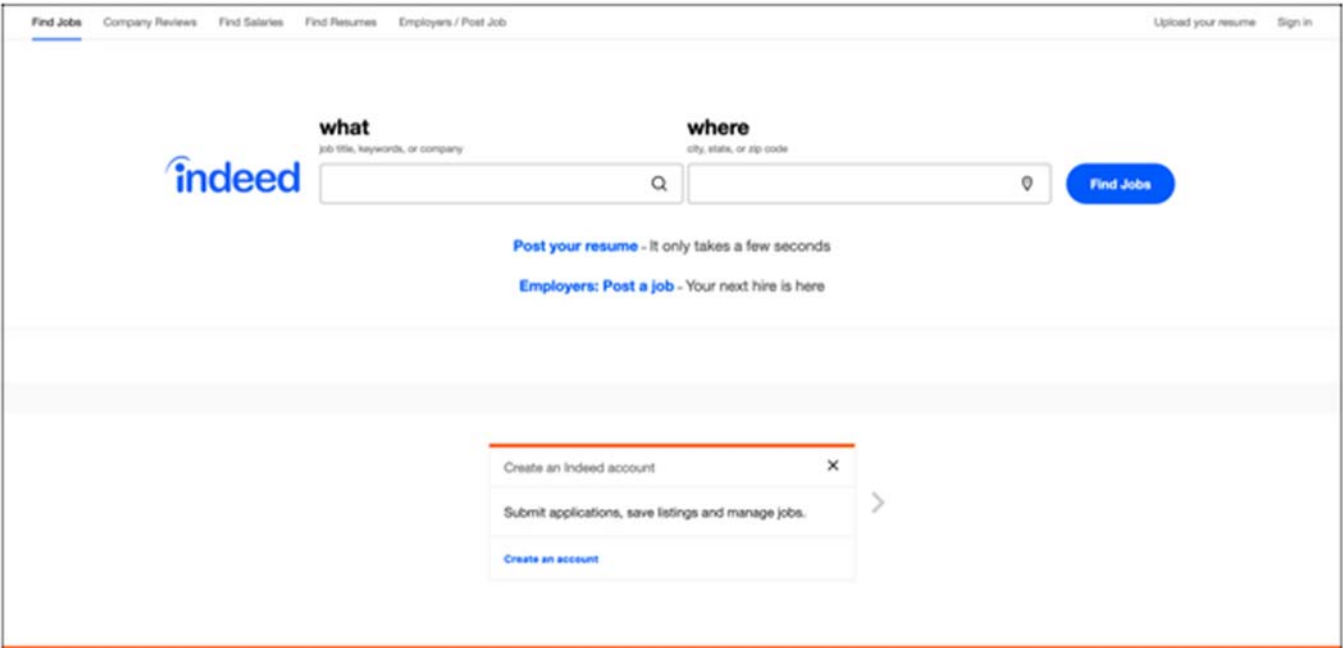
1. Indeed

Figure (2): (Indeed Home Page Diagram)

-This site is quite a job search engine indeed! The site has climbed to the top of the popularity list with over 250 million unique visitors per month. And it's with good reason that the site is well-known. Just pop in a keyword, select a location and find tons of available jobs.

-Since 2004, Indeed has given job seekers free access to millions of jobs from thousands of company websites and job boards. As the leading pay-for-performance recruitment advertising network, indeed drives millions of targeted applicants to jobs in every field and is the most cost-effective source of candidates for thousands of companies.

-Founded by Paul Forster and Ronny Kahan, indeed is a subsidiary of Recruit Holdings Co., Ltd. In the US, indeed has offices in Austin, New York, San Francisco, San Mateo, Seattle, and Stamford. Outside of the US, indeed has offices located in Amsterdam, Dublin, Düsseldorf, Hyderabad, London, Paris, Sydney, Tokyo, Zürich, and Toronto. For more information about Indeed, see our blog, press releases or contact us.

Features:

You can upload your resume, find salaries, read company reviews, and apply on either the hiring company's site or directly through Indeed. The site also offers a nice area for your profile where you can save jobs and then review them and then move them to Applied or Interviewing. If you're just starting your job search, global websites like Indeed are a terrific place to start.
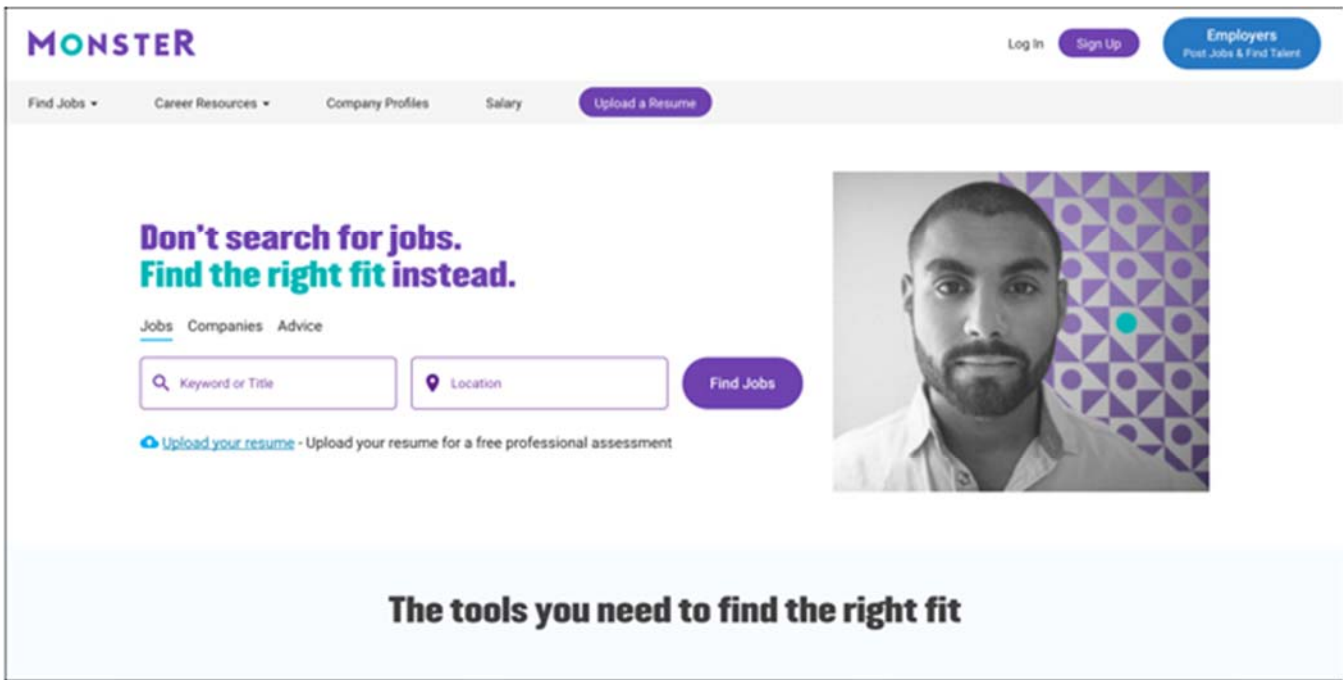
2. Monster

Figure (3): (Monster Home Page Diagram)

-Whenever anyone needs access to job markets across the world, Monster is an obvious place to start. Monster has grown into one of the largest job search sites on the internet and serves just about every community across the world.

-What makes the Monster of job search sites so useful is the international search. Select a country and then search for or browse opportunities. The site lets you post your resume, apply for positions directly, use an advanced job search, and access career resources to help you research every step of the job hunting process.

And for more help with that job hunting process, check out our guide to getting back on track if you're struggling. If you're fresh out of college, use these tips to set yourself up to get the perfect job. And always avoid these times of the year for job hunting.

Features:

When using Monster website, you will be able to use this features in order to enjoy searching for appropriate job and find it among thousands of different job companies, and those features are:

 Phone Support, Resume Database, Resume Search Free Trial, Credit Card Required for Trial, Activity Dashboard Social Advertising, Social Recruiting, Built-in Database, Database Access.
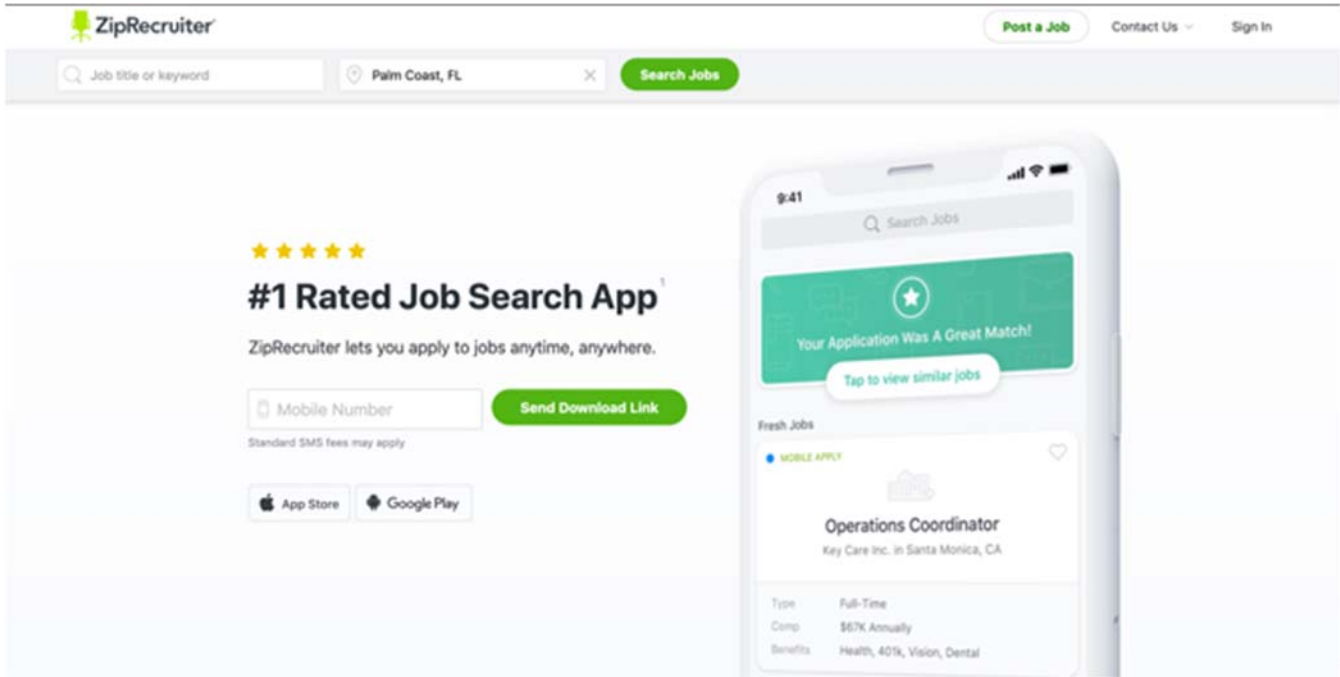
3. ZipRecruiter

Figure (4): (ZipRecruiter Home Page Diagram)

-ZipRecruiter not only gives you easy-to-use job search tools, but lets you quickly see suggested jobs, applied jobs, saved jobs, alerts, and a message center. You can also receive text alerts, which is handy for keeping up with new jobs available when you're on-the-go.

-You can narrow down your search results with filters for when posted, distance, salary, employment type, title, or company. Plus, as you apply a filter, you'll see the number of positions available using that filter. A standout feature ZipRecruiter is its 1-Click Apply. Find a job you like, click that button, and that's it!

- ZipRecruiter is a leading online employment marketplace. Powered by AI-driven smart matching technology, the company actively connects millions of all-sized businesses and job seekers through innovative mobile, web, and email services, as well as partnerships with the best job boards on the web. ZipRecruiter has the #1 rated job search app on iOS & Android. Founded in 2010, the Santa Monica-based marketplace has over 1000 employees in the U.S., Canada, the U.K.

Features:

ZipRecruiter provides access to over 12M job seeker resumes and posts to more than 100 job boards, so it can be a one-stop-shop for your recruiting and hiring process.
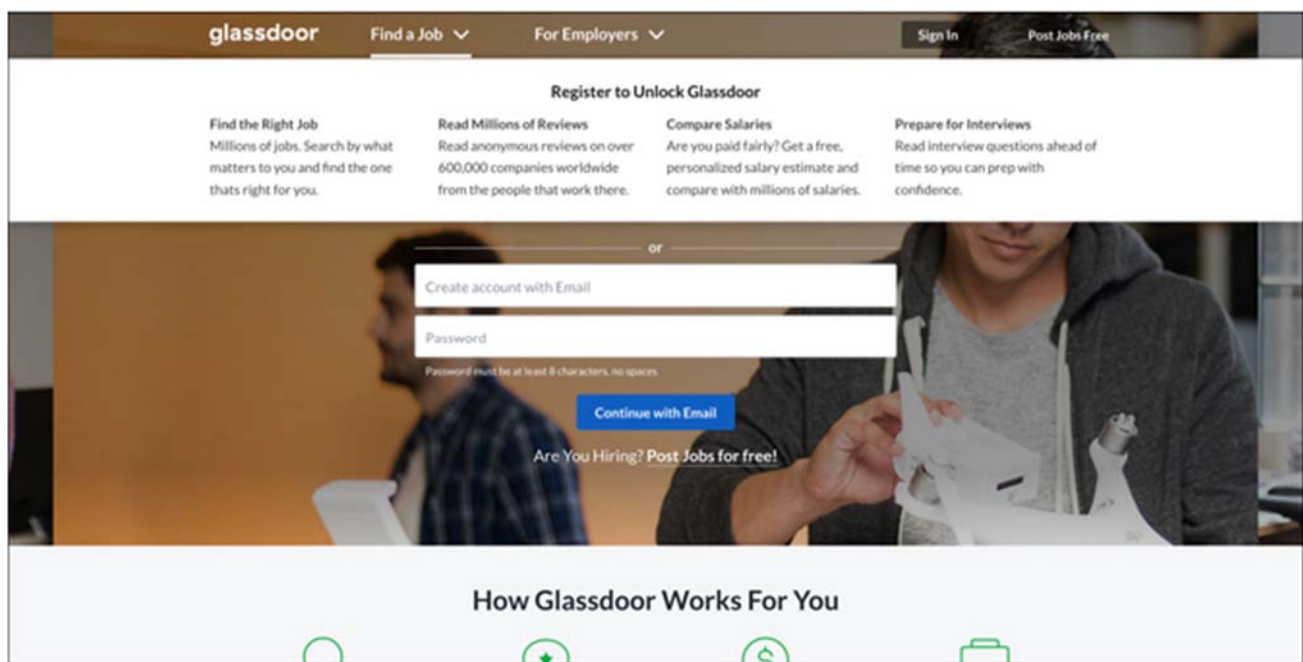
4. Glassdoor

Figure (5): (Glassdoor Home Page Diagram)

- Built on the foundation of increasing workplace transparency, Glassdoor offers millions of the latest job listings, combined with a growing database of company reviews, CEO approval ratings, salary reports, interview reviews and questions, benefits reviews, office photos and more. In turn, job seekers on Glassdoor are well-researched and more informed about the jobs and companies they apply to and consider joining. This is why thousands of employers across all industries and sizes turn to Glassdoor to help them recruit and hire quality candidates at scale who stay longer

-If you're looking for job search sites like Monster, that offer career resource tools, then head to Glassdoor. While they may be different than Monster's tools, they're certainly helpful. Read company reviews, search interview questions, find jobs by salary, and use the convenient salary calculator.

Features:

-You'll need to create a free account to start using Glassdoor, but that's when that door opens for all of the site's useful tools. You can set up job alerts, follow specific companies, upload your resume, and save jobs you like to review later. Don't pass this job search site by, Glassdoor is worth your time.

Glassdoor is available anywhere via its mobile apps. Glassdoor operates as a part of Recruit Holdings' growing HR Technology business segment.
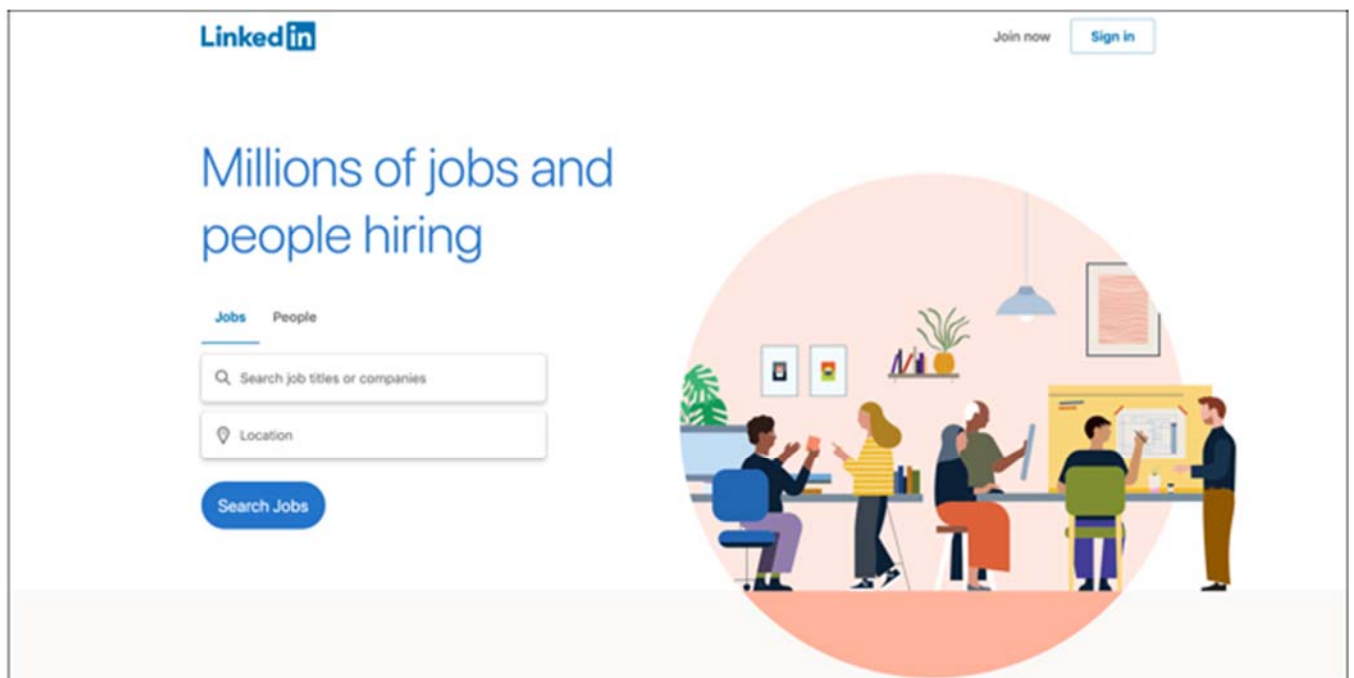
5. LinkedIn

Figure (6): (LinkedIn Home Page Diagram)

-LinkedIn began in co-founder **Reid Hoffman's** living room in 2002 and was officially launched on May 5, 2003. **Jeff Weiner** is the CEO of the company, and management includes experienced executives from companies such as Yahoo!, Google, Microsoft, TiVo, PayPal and Electronic Arts.

-Most people know that LinkedIn is the tops when it comes to professional networking. So, why wouldn't there be a LinkedIn Jobs site? Enter a job title, location, and hit the search button. You'll see results with filters for date posted, job type, experience level, and more.

-If you're a LinkedIn user, you can apply for jobs with a single click using your LinkedIn details. While the LinkedIn Jobs site may not have all of those extra features, like career resource tools, it doesn't need them because you can find those on the LinkedIn site itself. If you already have a LinkedIn account and profile set up, then this job search site is a no-brainer.

Features:

LinkedIn leads a diversified business with revenues from membership subscriptions, advertising sales and recruitment solutions. In December 2016, Microsoft completed its acquisition of LinkedIn, bringing together the world's leading professional cloud and the world's leading professional network.

2.6 Comparison Tables between websites

1. Monster VS Indeed

As two of the largest job posting and recruiting sites in the world, **Monster** and **Indeed** are used by countless employers to fill vacant job positions around the world. Because both platforms are well-known, we've done a comparison of the two to help you decide which platform is the best for your needs.

Features:

Feature	Monster	Indeed
Phone Support	Yes	No
Online Support	No	Yes
Resume Database	Yes	Yes
Resume Search	Yes	Yes
Free Trial	Yes	Yes
Credit Card Required for Trial	Yes	No
Free Plan	No	Yes
Accounting Management	No	Yes
Budget Control	No	Yes
Activity Dashboard	Yes	No
Social Advertising	Yes	No
Social Recruiting	Yes	Yes
Built-in Database	Yes	Yes
Database Access	Yes	Yes
Communication Management	No	Yes
Customizable Branding	Yes	No
Real Time Notifications	No	No

Price Comparison:

Monster	Indeed
Pay per post.	Pay per click.
Starts at $249.00 per month for 1 reusable slot.	Starts at $0.00 per posting.
Costs up to $449.99 per month for 5 reusable slots.	Maximum cost depends on the daily pay per click budget that you set for a sponsored post.

The Bottom line:

Both Indeed and Monster are trusted by millions of employers around the world to find and hire the best talent in every industry. Your preference may depend on the size of your business, your hiring needs, and your budget. We recommend taking a careful look at all of the features that each platform offers and try both products for yourself to determine which one is suitable for your needs.

2. Indeed VS Glassdoor

Glassdoor and **Indeed** are both major job sites that are used by businesses of all sizes to advertise job opportunities. With Glassdoor and Indeed, you can post job opportunities and accept applications from candidates.

Features:

Features	Glassdoor	Indeed
iPhone App	Yes	Yes
Android App	Yes	Yes
Windows App	No	No
Phone Support	Yes	No
Free Trial	Yes	Yes
Free Version	Yes	Yes
Applicant Tracking	Yes	Yes
Application Management	Yes	Yes
Resume Search	Yes	Yes
Video Tutorials	No	No
Resume Database	Yes	Yes

Price Comparison:

Glassdoor	Indeed
Pay per job slot.	Pay per click.
Starts at $199.00 per month for one standard job slot.	Starts at $0.00 per posting.
Up to $699.00 per month for 10 premium job slots.	Maximum cost depends on the daily pay per click budget that you set for a sponsored post.

3. ZipRecruiter VS Indeed

ZipRecruiter and **Indeed** are two of the largest job posting and recruiting sites in the world. Employers of all sizes use these sites to connect with job applicants and fill vacant positions. Because ZipRecruiter and Indeed are both so well known, many people ask, "Which platform is best?" We'll help to answer that question.

Features:

Feature	ZipRecruiter	Indeed
Phone Support	Yes	No
Online Support	Yes	Yes
Resume Database	Yes	Yes
Resume Search	Yes	Yes
Free Trial	Yes	Yes
Credit Card Required for Trial	Yes	No
Free Plan	No	Yes
Accounting Management	No	Yes
Budget Control	No	Yes
Activity Dashboard	Yes	No
Social Advertising	Yes	No
Social Recruiting	No	Yes
Built-in Database	No	Yes
Database Access	No	Yes
Communication Management	No	Yes
Customizable Branding	Yes	No
Real Time Notifications	Yes	No

Price Comparison:

Pay per post.	Pay per click.
Starts at $249.00 per month for 1 reusable slot.	Starts at $0.00 per posting.
Costs up to $1,569.00 per month for 50 reusable slots.	Maximum cost depends on the daily pay per click budget that you set for a sponsored post.

4. Indeed VS LinkedIn

Indeed and **LinkedIn** are two of the largest job sites in the world. If your business needs to recruit new employees, chances are that you've considered using one of these sites to advertise new opportunities, so we've compared them to help you decide.

Features:

Feature	Indeed	LinkedIn
iPhone App	Yes	Yes
Android App	Yes	Yes
Windows App	No	Yes
Phone Support	No	No
Online Support	Yes	Yes
Video Tutorials	No	Yes
Knowledge Base	Yes	No
Free Trial	Yes	Yes
Free Version	Yes	Yes
Email Invitations	No	Yes
Lead Management	No	Yes
Resume Search	Yes	Yes
Mobile Integration	Yes	No
Automatic Reminders	No	Yes

Price Comparison:

Indeed	LinkedIn
Pay per click.	Paid subscription plans or pay-per-click.
Starts at $0.00 per posting.	Minimum price depends on the daily pay-per-click budget that you set.
Maximum cost depends on the daily pay per click budget that you set for a sponsored post.	The full "Recruiter" package with advanced search tools starts at $8,999.00 per year.

3. Requirement specification

1. Introduction:

Viewing available jobs, or applying for the job at the company is currently done manually where in the job seekers has to go to the company and check the available jobs at them. Job seekers check the list of available jobs and apply the job if the job isn't available otherwise it is a waste for the job seeker to come to the company and check for the job if the job seeker doesn't get the job. Then the agency will show available jobs for the job seeker for his qualifications and the then updates the jobs database. This takes at least one to two hours if the job seeker is available at the nearby place otherwise it may take more time.

We have decided to search and study the use of an Online Foreign Job Applying System. This system would be used by members who may be Job seekers or Institutes to check the availability of the jobs and apply the job for job seekers, and by the institutes to update the databases. The purpose of this document is to analyze and elaborate on the high-level needs and features of the *Online* Foreign Job Applying *System.* It focuses on the capabilities and facilities provided by an institute. The details of what are the needs of the Online Foreign Job Applying System and if it satisfies these needs or not are detailed in the use-case and supplementary specifications.

2. Overall Description:

2.1 Website Perspective:

➤ The Online Job System is a package to be used by institutes to improve the efficiency of business. The Online Job System to be developed benefits greatly the members. The system provides jobs catalog and information to members and helps them decide on the jobs to apply. The Admin can keep the jobs catalog updated all the time so that the members (Job seekers and the agencies) get the updated information all the time.

➤ The product to be developed has interactions with the users: Admin, Members who are the Job seekers and the educational institutes.

2.2 Product Features

2.2.1 Jobseeker Features:

- ✓ Advanced job searching.
- ✓ Register for a jobseekers account.
- ✓ Build your profile.
- ✓ Build your CV.
- ✓ Update/Delete your CV's.
- ✓ Receive jobs via email.
- ✓ Enable/Disable email alerts.
- ✓ Save jobs in your Jobs Inbox.
- ✓ Apply to job vacancies instantly.
- ✓ View previous applications.
- ✓ Upload personal photo.
- ✓ Easy to use interface.
- ✓ Easy to apply for a job.

2.2.2 Educational Institutes Features:

- ✓ View detailed profiles.
- ✓ Advertise job vacancies instantly.
- ✓ Update/Delete job vacancies.
- ✓ Upload company logo.
- ✓ Hide contact details on job postings.
- ✓ Receive application alerts via email.
- ✓ View/Delete applicant CV's.

2.2.3 Administration Features:

- ✓ Multiple administration accounts.
- ✓ Create multiple job categories.
- ✓ View/Edit/Delete jobseekers.
- ✓ Email individual jobseekers.
- ✓ View/Edit/Delete employers.
- ✓ Email individual employers.
- ✓ View jobs for each educational institute.
- ✓ Advanced content management system.
- ✓ Add unlimited pages of content.

3.1 Requirements Model

ID	Details	Type	Priority
R1	The website will display a search list to make it easy for users to find anything they need.	Functional	Must Have
R2	The website shall organize the list of job advertisements.	Functional	Must Have
R3	The app shall show a detailed information for each profile to let the educational institutes choose the suitable one.	Functional	Must Have
R4	The website shall send error messages in case the users provide invalid information in signing up process.	Functional	Must Have
R5	The website shall create accounts for users who provide valid information.	Functional	Must have
R6	The website shall give the educational institutes the ability to post job opportunities.	Functional	Want to Have
R7	The website shall give the users the ability to provide their CV.	Functional	Must Have
R8	The admin shall send a detailed report to the user about the details.	Functional	Should Have
R9	The website shall display the number of users that applied to the job vacancies.	Functional	Must Have
R10	The website shall accept all job vacancies.	Functional	Must Have
R11	The website shall validate the application request after they provide their CV.	Functional	Must Have
R12	The website shall provide the ability of approval or disapproval of the job application.	Functional	Should have
R13	The website shall check the username and password before logging in.	Functional	Must Have
R14	The website shall inform the users if they have accepted in the job .	Functional	Must Have
R15	The website shall show detailed information about each job opportunity.	Functional	Must Have
R16	When the job advertisement is cancelled the website shall remove it from the system.	Functional	Must Have

ID	Details	Type	Priority
R17	The website shall be available 7/24 hours per day.	Nonfunctional	Must Have
R18	The website shall store user's record data.	Nonfunctional	Must Have
R19	The website shall support two different languages.	Nonfunctional	Should Have
R20	The app shall support more than one job request at the same time.	Nonfunctional	Must Have
R21	The website shall store all job advertisements.	Nonfunctional	Must have

The image below shows the schedule of requirement specification:
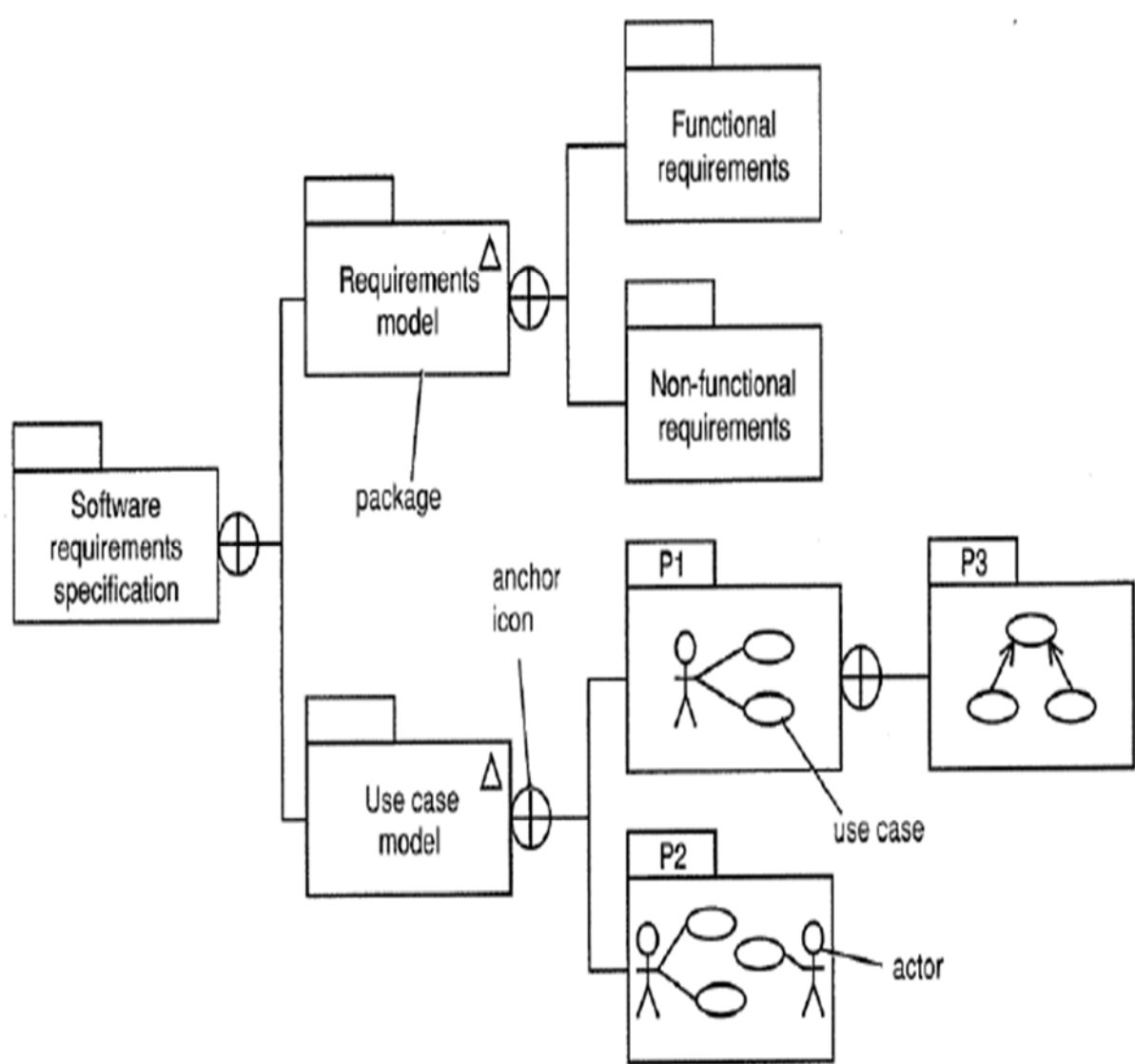
Figure (7): (Software Requirements Specification Diagram)
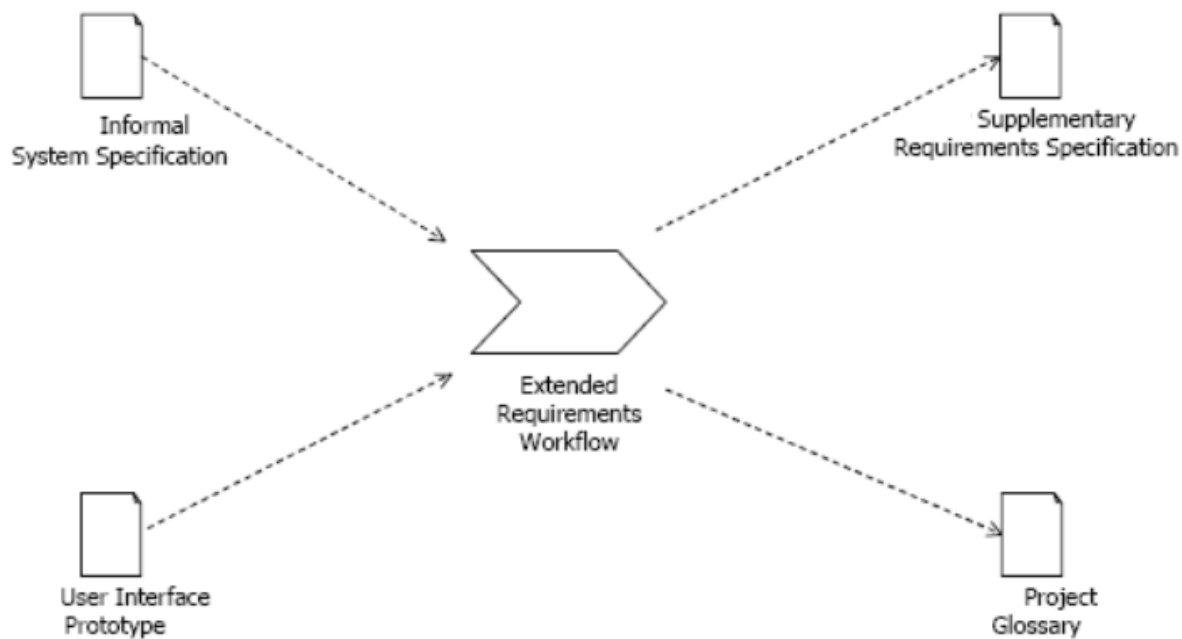
Figure (8): (Requirements Work Flow Diagram)

Stakeholders (educational Institute):

The stakeholders are anyone who benefits from the system or who have an interest in the system. They may be affected by it either directly or indirectly. Stakeholders who will be involved in this system and their role will be described as follows:

Recruitment Unit: - The primary function of the recruitment unit is to attract highly qualified candidates to meet the organization need while providing equal opportunities for all. They prepare job descriptions and personnel specifications, Post job vacancies, screens applicants, devise and implement selection processes, conduct interviews and routes to hiring managers.

Department Heads: determine whether the vacant positions duties can be handled by the existing regular employees and then initiate temporary employee requisition by specifying need justification, and forward it for approval to hiring manager and notify to Recruitment Unit on the performance of the employee before the probation period ends.

Managers: employees with high authority who make key decisions and run the company.

Admin Manager: is the administrator who is responsible for making wise decisions on selecting potential candidate by working together with recruitment unit.

Job Applicants: job seekers who are applying for a certain vacant position.
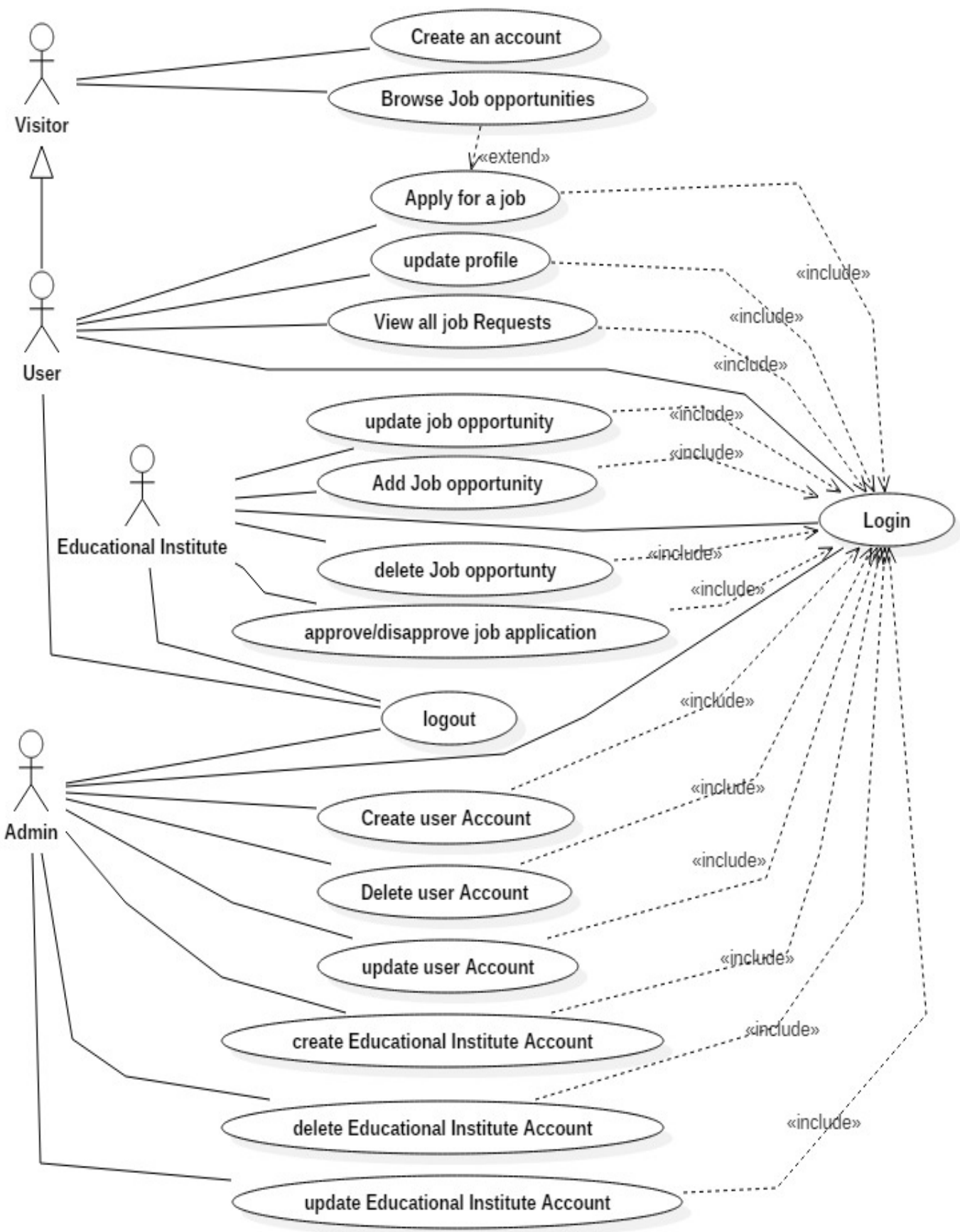
3.2 Use-Case Model

Figure (9): (Use-case Diagram)

3.2.1 Detailed Use-Cases

Use Case: **Browse Job opportunities**	
ID: 1	
Primary actors: Visitor	
Secondary actors: None.	
Preconditions: None	
Brief description: The system will show job opportunities	

Main flow:
   1- Use-case start when the user opens the website.
   2- The system views all job opportunities that created by
      Educational Institute.
   3- The user clicks on job opportunity to see the details.	

Post conditions: 1. The system has displayed the job opportunity details.	
Alternative flows: None.	

Use Case: Create an account
ID: 2
Primary actors: 1. Visitor /Educational Institutes.
Secondary actors: None.
Preconditions: None
Brief description: the system creates a new account for the user.
Main flow: 1- The use-case start when the visitor clicks on the create new account button. 2- The system asks about the type of account to be created (user, Educational Institute) 3- The visitor chooses the type of account which want. 4- The visitor enters the data required by the system. 5- The visitor will confirm his information. 6- The system makes sure that the entered data is not already existed. 6.1 –if the data does not exist, the system logs and returns the message confirming the visitor. 6.2-if the data is existed the system returns a message to the user to modify the data.
Post conditions: 1. A new user account has been created.
Alternative flows: • Invalid username • Invalid email • Invalid password

Use Case: Logging in
ID: 3
Primary actors: User/admin/Educational Institute
Secondary actors: None.
Preconditions: Having an account.
Brief description: The user can log in with his account.

Main flow:
    1- The use-case start when the user clicks on the log in button.
    2- user enters the username and password.
    3- The system checks the entered data from user.
    4- If the data was correct the system transfers the user to his own profile page.
    5- If the data wasn't correct the system will return an error message containing the reason to let the user modify his entered data.

Post conditions: None.
Alternative flows: Invalid username. Invalid password.

Use Case: **Apply for a job**
ID: 4
Primary actors: 1. User
Secondary actors: 1. none
Preconditions: 1. the user browses job opportunities.
Brief description: • submitting on a published job advertisement.

Main flow:
   1- the user searches in all job opportunities.
   2- the user chooses a job opportunity.
   3- the user submits his request and waiting for a
       response.

Post conditions:
   • The system fetches the user's data and sending to
       Educational Institute profile.

Alternative flows: None.

Use Case: Update Profile
ID: 5
Primary actors: User
Secondary actors: None.
Preconditions: Logging in.
Brief description: Updating the user's data

Main flow:
    1- Use-case start when the user logs into his profile page.
    2- The user press on the button of update information.
    3- The system transfers the user to the update page.
    4- The user fills his new information to the page.
    5- The user press on save button.
    6- The system changes the information on data base.

Post conditions: None.
Alternative flows: None.

Use Case: Add job opportunity
ID: 6
Primary actors: Educational Institute.
Secondary actors: None.
Preconditions: Logging in.
Brief description: Add new job opportunity .

Main flow:
    1- Use-case start when the Educational Institute logs into his profile page.
    2- The Educational Institute press on the button of add new job opportunity.
    3- The Educational Institute fills information of job opportunity.
    4- The Educational Institute press on save button.

Post conditions: None.
Alternative flows: None.

Use Case: update job opportunity
ID: 7
Primary actors: Educational Institute .
Secondary actors: none
Preconditions: Logging in.
Brief description: Change the details of a job opportunity

Main flow:
   1- Use-case start when the Educational Institute logs into his profile.
   2- Educational Institute selects one of job opportunities that it published.
   3- Changes the Information of job opportunity.

Post conditions: System update data.
Alternative flows: None.

Use Case: delete job opportunity
ID: 8
Primary actors: Educational Institute .
Secondary actors: none
Preconditions: Logging in.
Brief description: Delete job opportunity.

Main flow:
    1- Use-case start when the Educational Institute logs into the profile page.
    2- Educational Institute selects one of job opportunities that it entered.
    3- Educational Institute presses on the delete job opportunity button.

Post conditions: System deletes job opportunity from Database.
Alternative flows: None.

Use Case: Approve / disapprove job application
ID: 9
Primary actors: Educational Institute .
Secondary actors: User
Preconditions: Logging in.
Brief description: • Approval and disapproval to the user's applying job request
Main flow: 1- logs into the profile page 2- The Educational Institute chooses a job opportunity from the list. 3- The system will show all of the requests Submitted by the users 4- The Educational Institute chooses the suitable user request for the job. 5- The Educational Institute confirms on the selected request 6- The Educational Institute clicked on the approve request button. 7- The system will save the request approval. 8- The system will notify the selected user of his request approval.
Post conditions: None.
Alternative flows: None.

Use Case: create user account
ID: 10
Primary actors: Admin
Secondary actors: none
Preconditions: Logging in.
Brief description: • create user account by admin of system
Main flow: 1. Use-case start when admin login to the System. 2. Admin selects on create account for user. 3. admin fills user's information. 4. admin presses on save button .
Post conditions: None.
Alternative flows: None.

Use Case: delete user account
ID: 11
Primary actors: Admin
Secondary actors: none
Preconditions: Logging in.
Brief description: • delete user account by admin of system
Main flow: 1. Use-case start when admin login to the System. 2. Admin selects on delete account for user. 3. Admin chooses one of users to delete his profile. 4. Admin presses on delete button.
Post conditions: None.
Alternative flows: None.

Use Case: update user account
ID: 12
Primary actors: Admin
Secondary actors: none
Preconditions: Logging in.
Brief description: • update user account by admin of system

Main flow:
  1. Use-case start when admin login to the System.
  2. Admin selects on update account for user button.
  3. Admin chooses one of users to delete his profile.
  4. Admin updates user's information.
  5. Admin presses on save button.

Post conditions: None.
Alternative flows: None.

Use Case: create Educational Institute account.
ID: 13
Primary actors: Admin
Secondary actors: none
Preconditions: Logging in.
Brief description: • Create Educational Institute account by admin of system.
Main flow: 1. Use-case start when admin login to the System. 2. Admin selects on create account for Educational Institute. 3. Admin fills Educational Institute information. 4. Admin presses on save button.
Post conditions: None.
Alternative flows: None.

Use Case: delete Educational Institute account
ID: 14
Primary actors: Admin
Secondary actors: none
Preconditions: Logging in.
Brief description: • delete Educational Institute account by admin of system
Main flow: 1. Use-case start when admin login to the System. 2. Admin selects on delete account for Educational Institute. 3. Admin chooses one of Educational Institutes to delete his profile. 4. Admin presses on delete button.
Post conditions: None.
Alternative flows: None.

Use Case: update Educational Institute account
ID: 15
Primary actors: Admin
Secondary actors: none
Preconditions: Logging in.
Brief description: • update Educational Institute account by admin of system
Main flow: 1. Use-case start when admin login to the System. 2. Admin selects on update account for Educational Institute button. 3. Admin chooses one of Educational Institutes to delete his profile. 4. Admin updates Educational Institute's information. 5. Admin presses on save button.
Post conditions: None.
Alternative flows: None.

3.3 Context Diagram
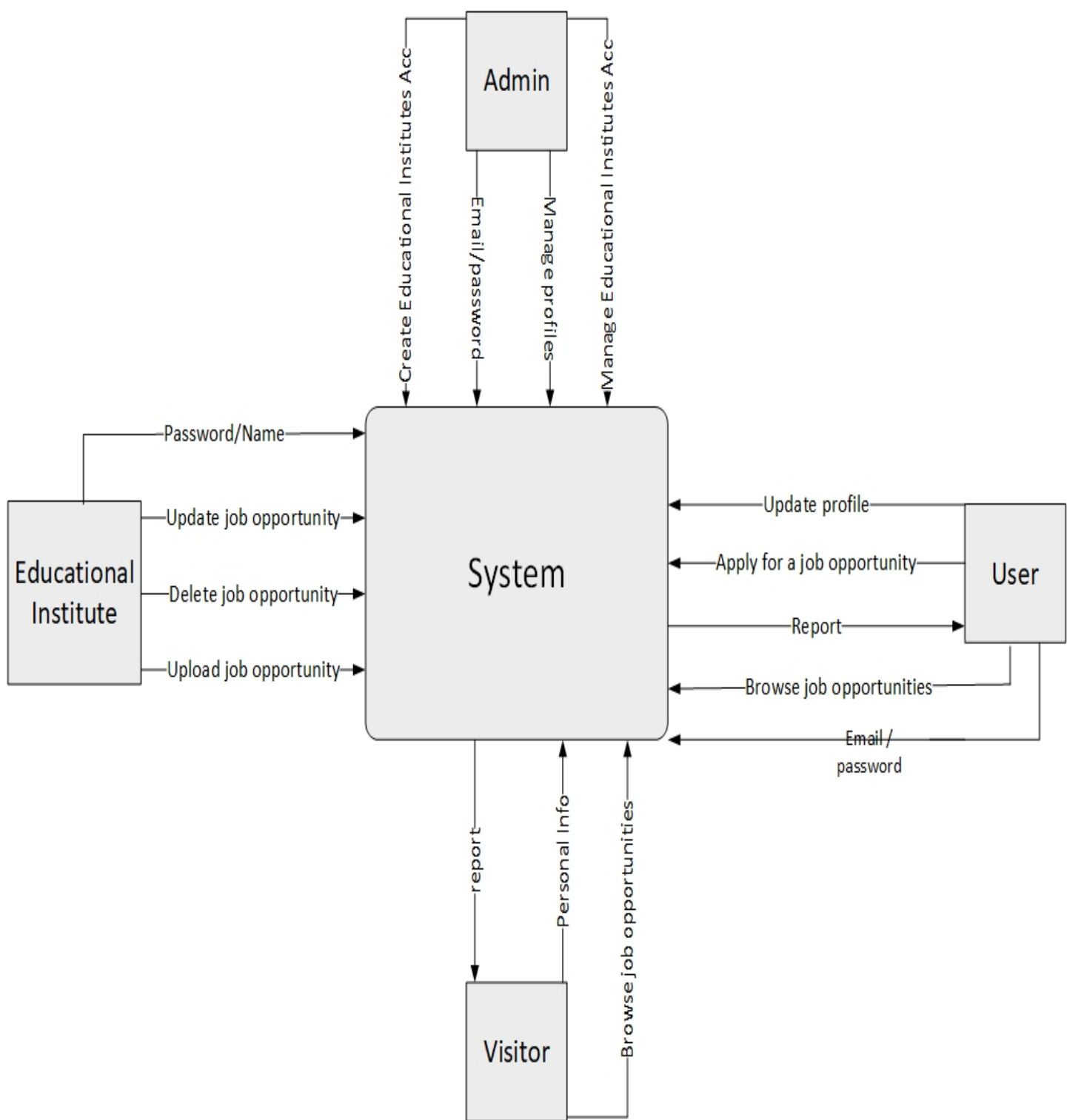
Figure (10): (Context Diagram)

- The Context Diagram shows the system under consideration as a single high-level process and then shows the relationship that the system has with other external entities.
- We have four entities that will interact with system:
  Visitors-Users-Educational Institute-Admin

3.4 Activity Diagram
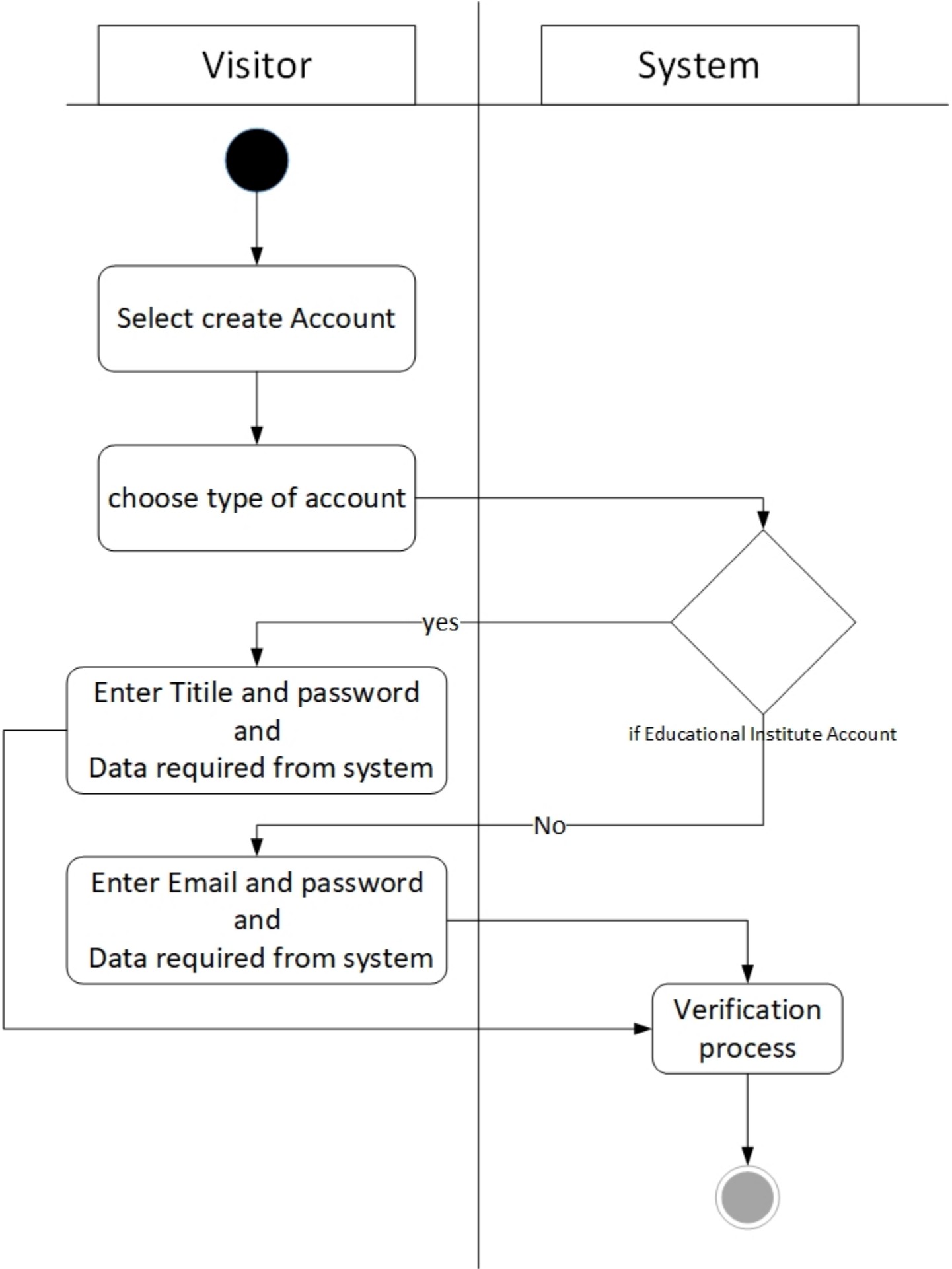
Figure (11): (Activity Diagram for creating an account)
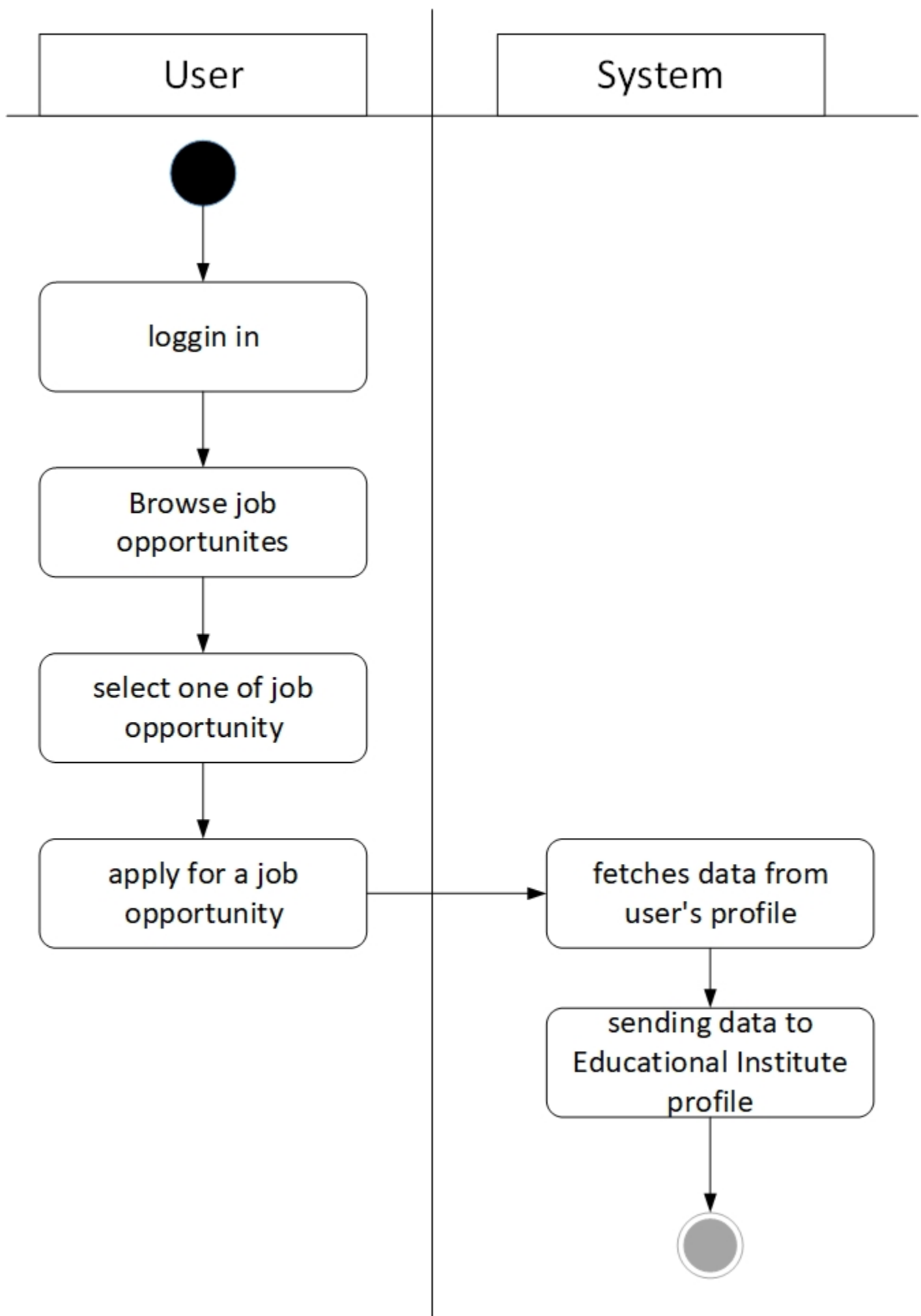
Figure (11.1): (Activity Diagram for browsing job opportunities)
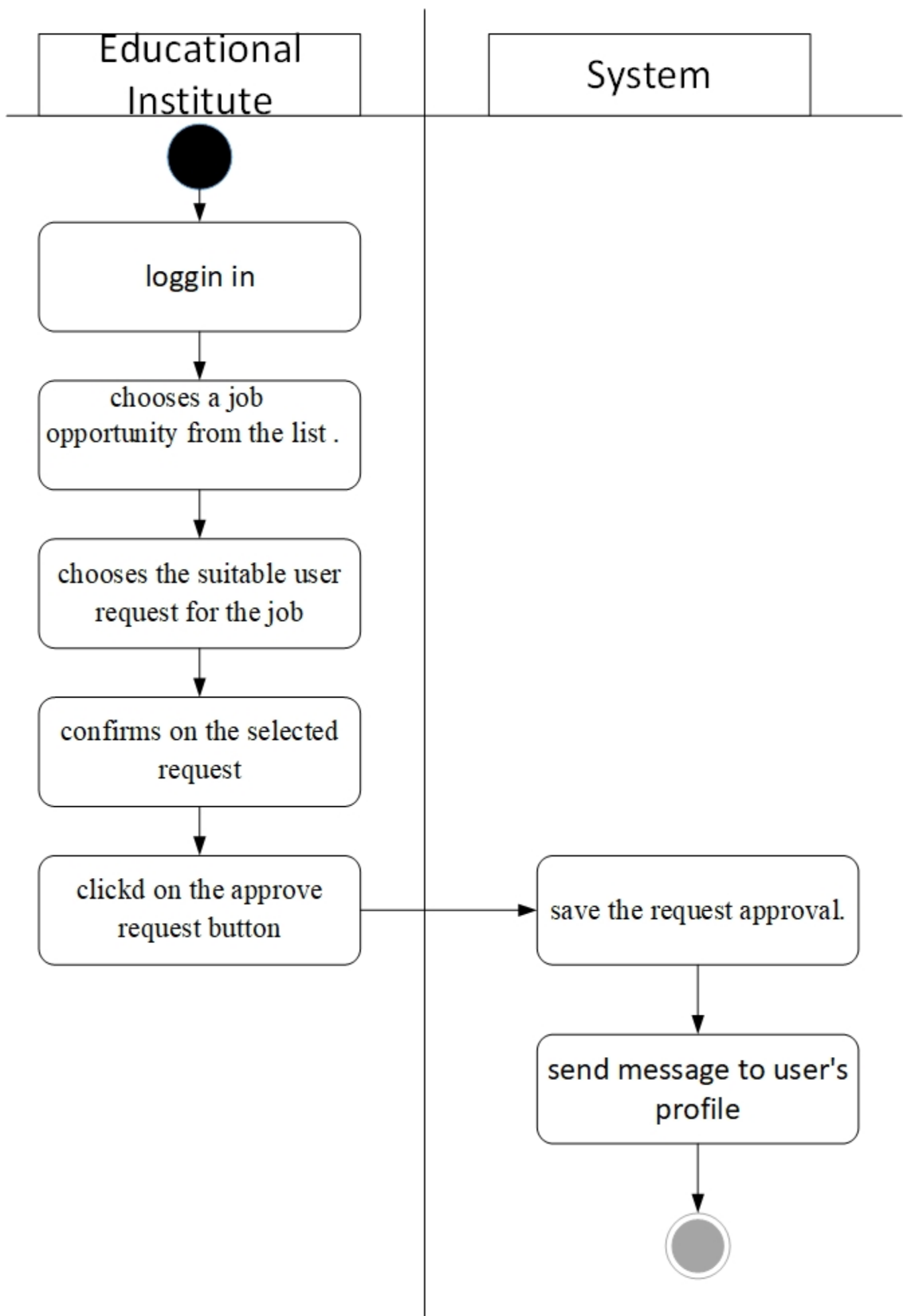
Figure (11.2): (Activity Diagram for request approval)
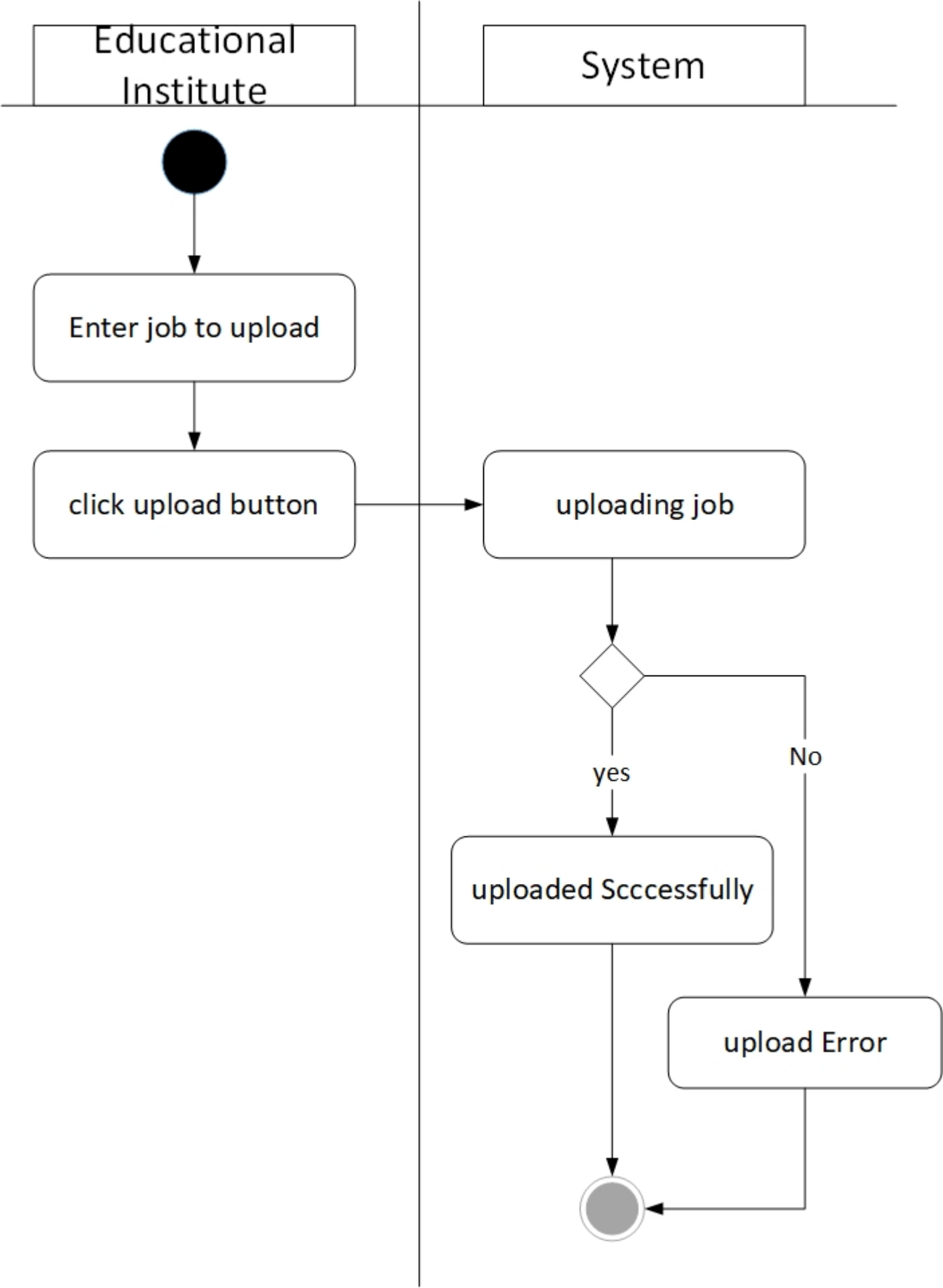
Figure (11.3): (Activity Diagram for job upload)

4.Design Study

4.1 ERD Diagram
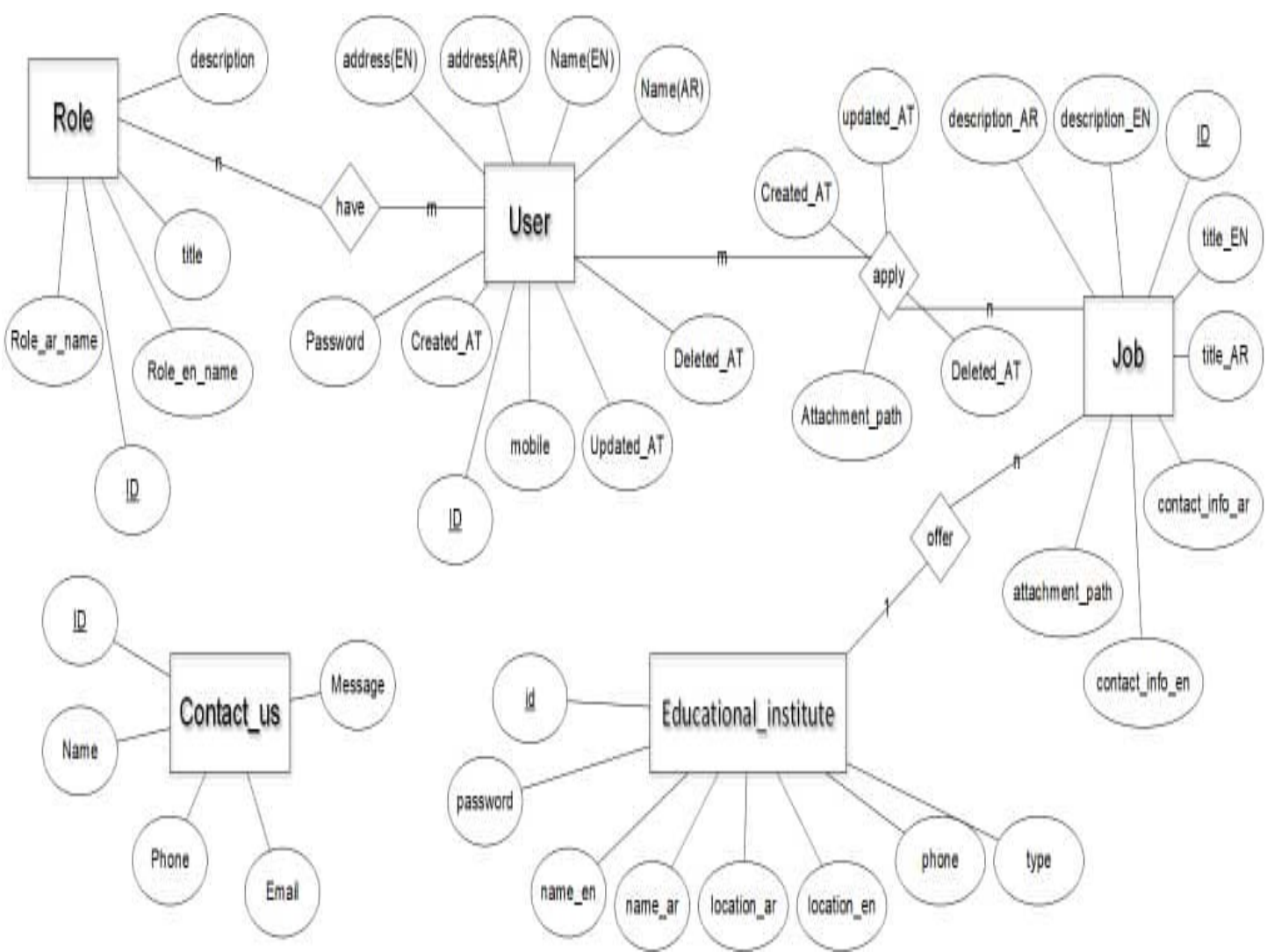
Figure (12): (ERD Diagram)

An entity relationship diagram (ERD) shows the relationships of entity sets stored in a database. An entity in this context is an object, a component of data. An entity set is a collection of similar entities. These entities can have attributes that define its properties.

By defining the entities which are: user, role, educational institute, job and their attributes as showing the relationships between them, an ER diagram illustrates the logical structure of databases.

4.2 Sequence Diagram
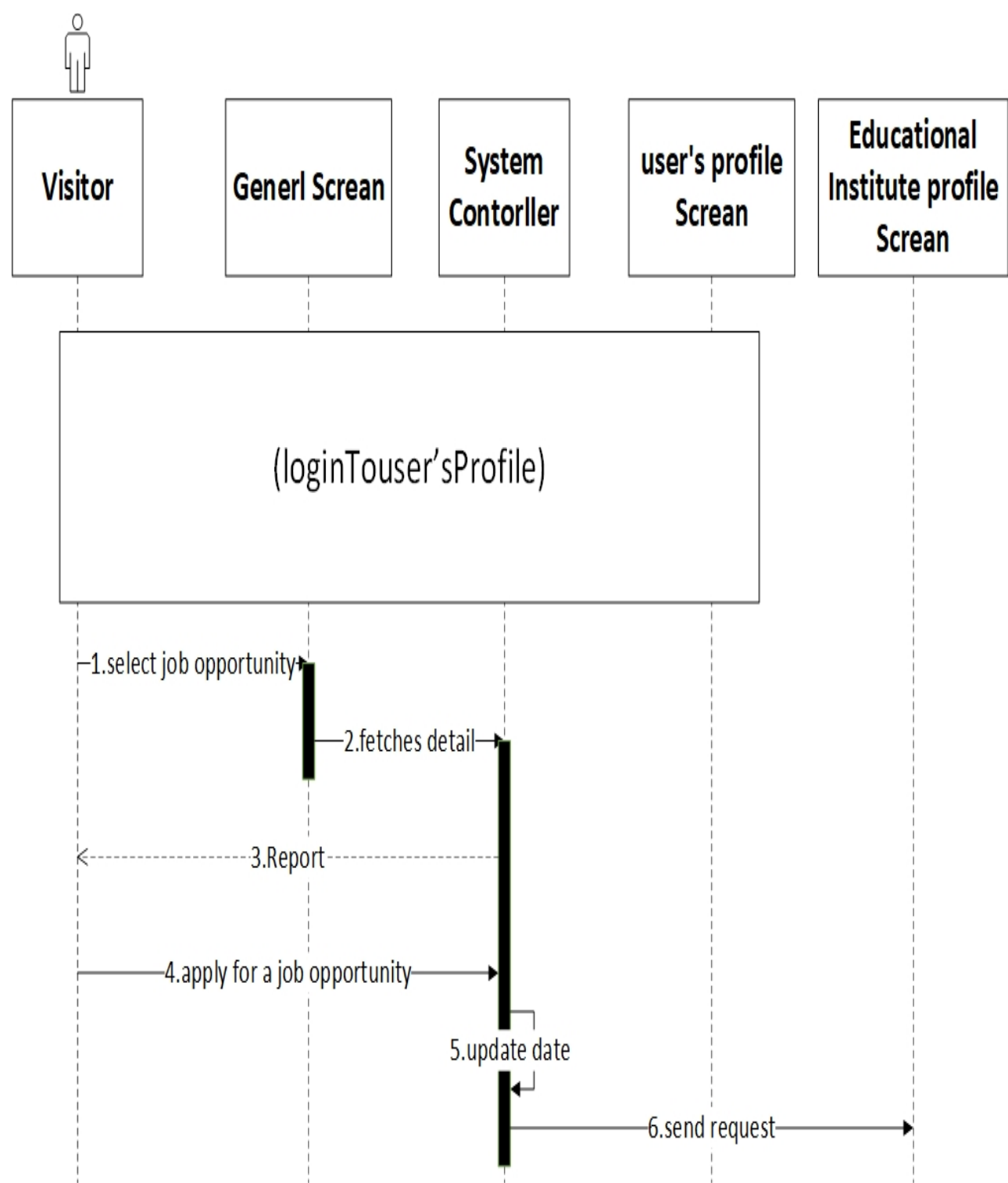
Figure (13): (Sequence Diagram for applying job opportunity process)
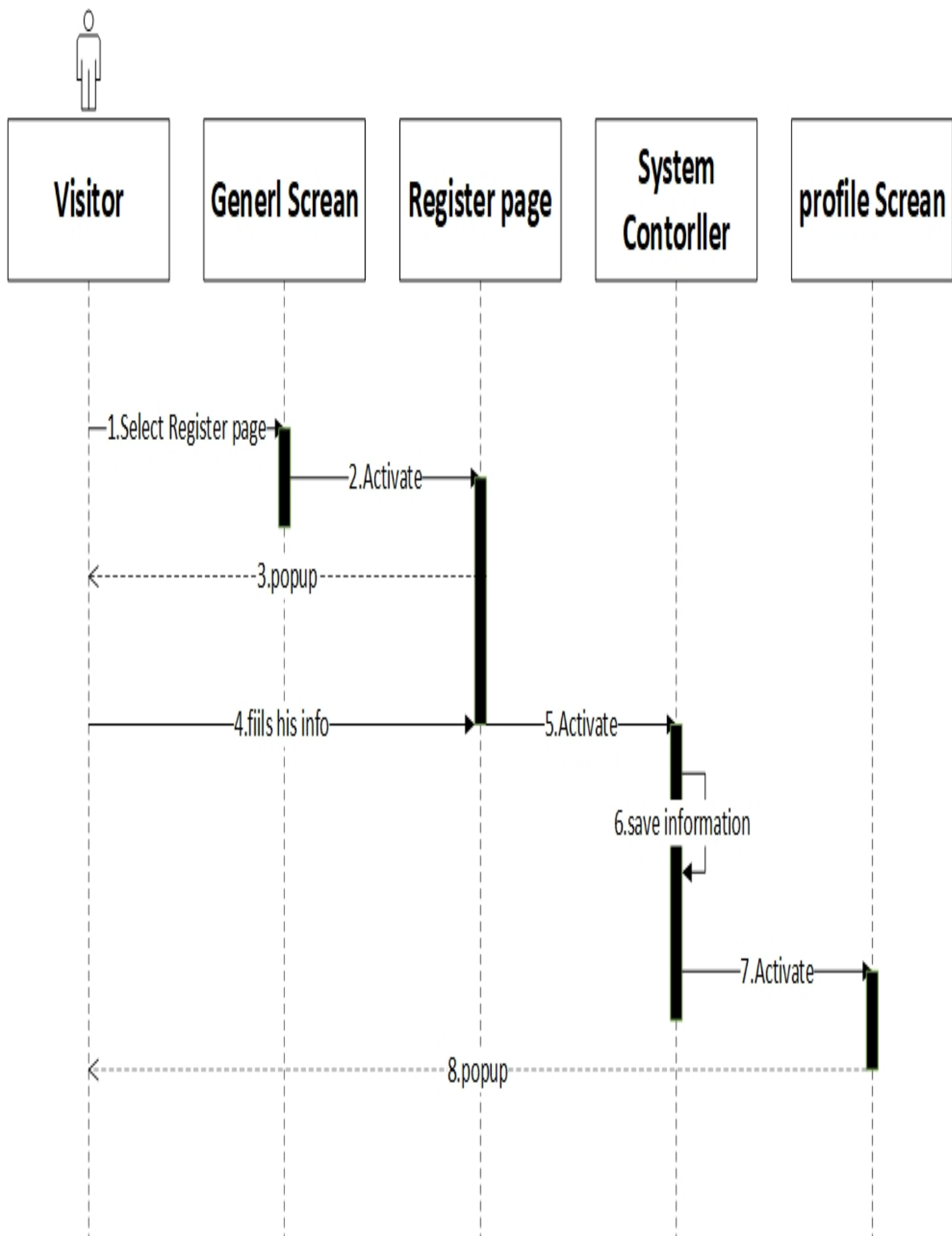
Figure (13.1): (Sequence Diagram for registering process)

4.3 Collaboration Diagram
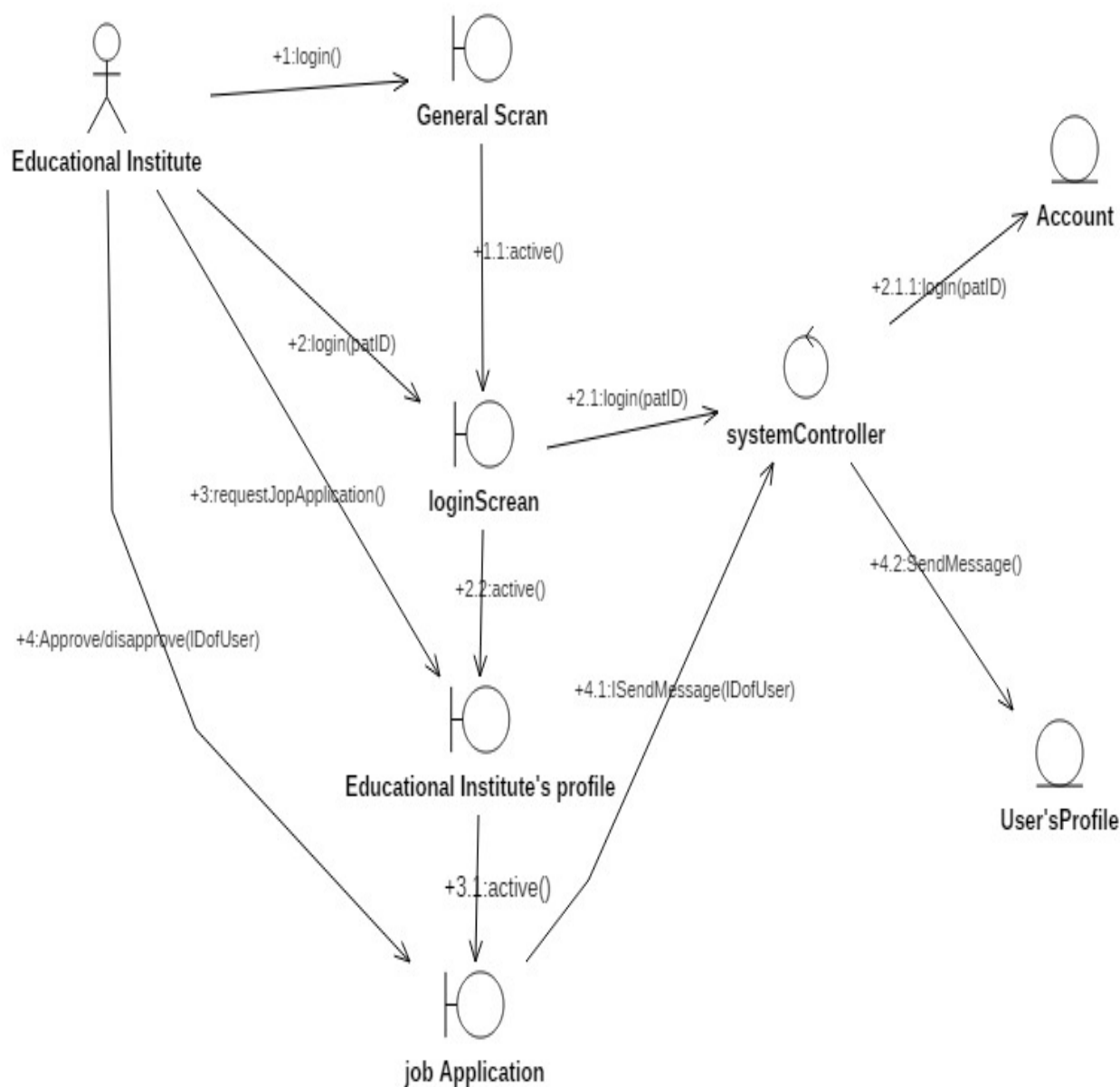
Figure (14): (Collaboration Diagram)

Collaboration diagrams (**known as Communication Diagram in UML**) are used to show how objects interact to perform the behavior of a particular use case, or a part of a use case. Along with sequence diagrams, collaboration is used by designers to define and clarify the roles of the objects that perform a particular flow of events of a use case.

This collaboration diagram describes how educational institute can log into the general screen to make the login process to the personal account.

5.Implementation

The 1st page:

Figure (16): "Welcoming_Page.blade.php"

♥ This is the welcoming page for our website.

The 2nd page

Figure (17): "Login_Page.blade.php"

♥ This page will have all the choices of logging in or registering.

The first scenario:
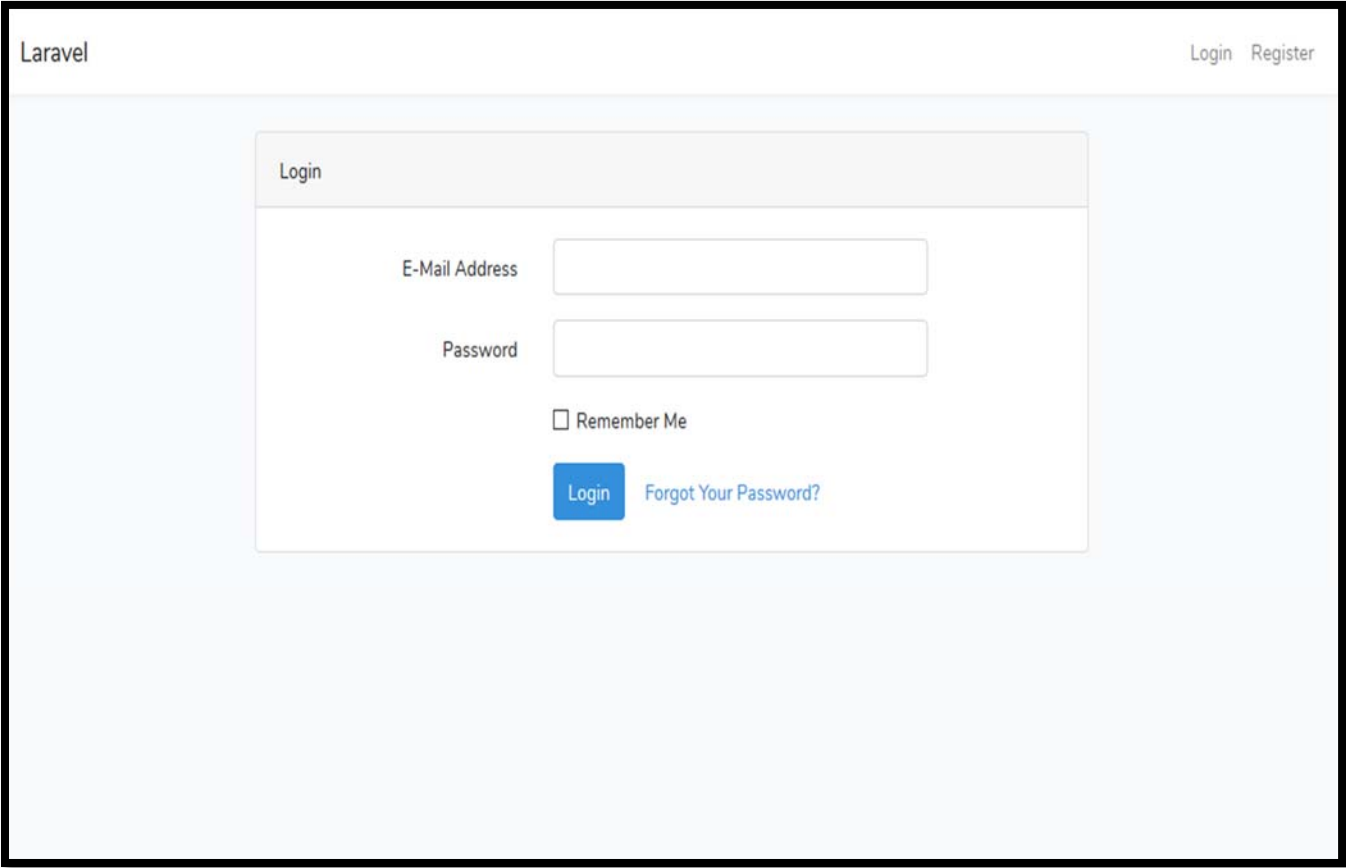
Figure (18): "User_Login.blade.php"

♥ This page will show after logging in as a user who has an account.

The first scenario:

The 2nd page in the first scenario:
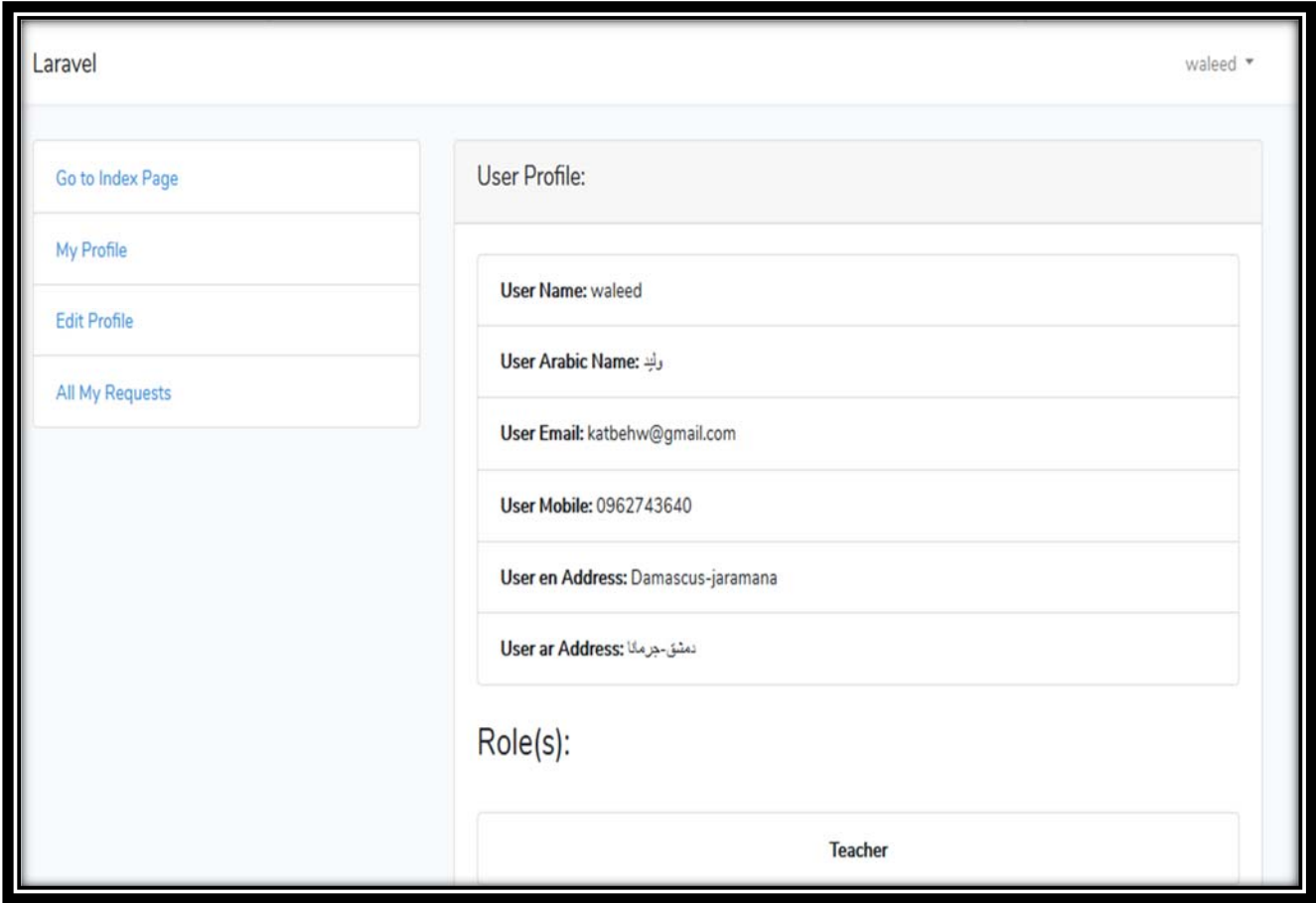
Figure (19): "User_Profile.blade.php"

♥ This page will show all the user's information on his profile.

The first scenario:

The 3rd page in the first scenario:

Figure (20): "Update_User_Profile.blade.php"

♥ This page will show when the user wants to update his profile info.

The second scenario:

The 1st page in the second scenario:
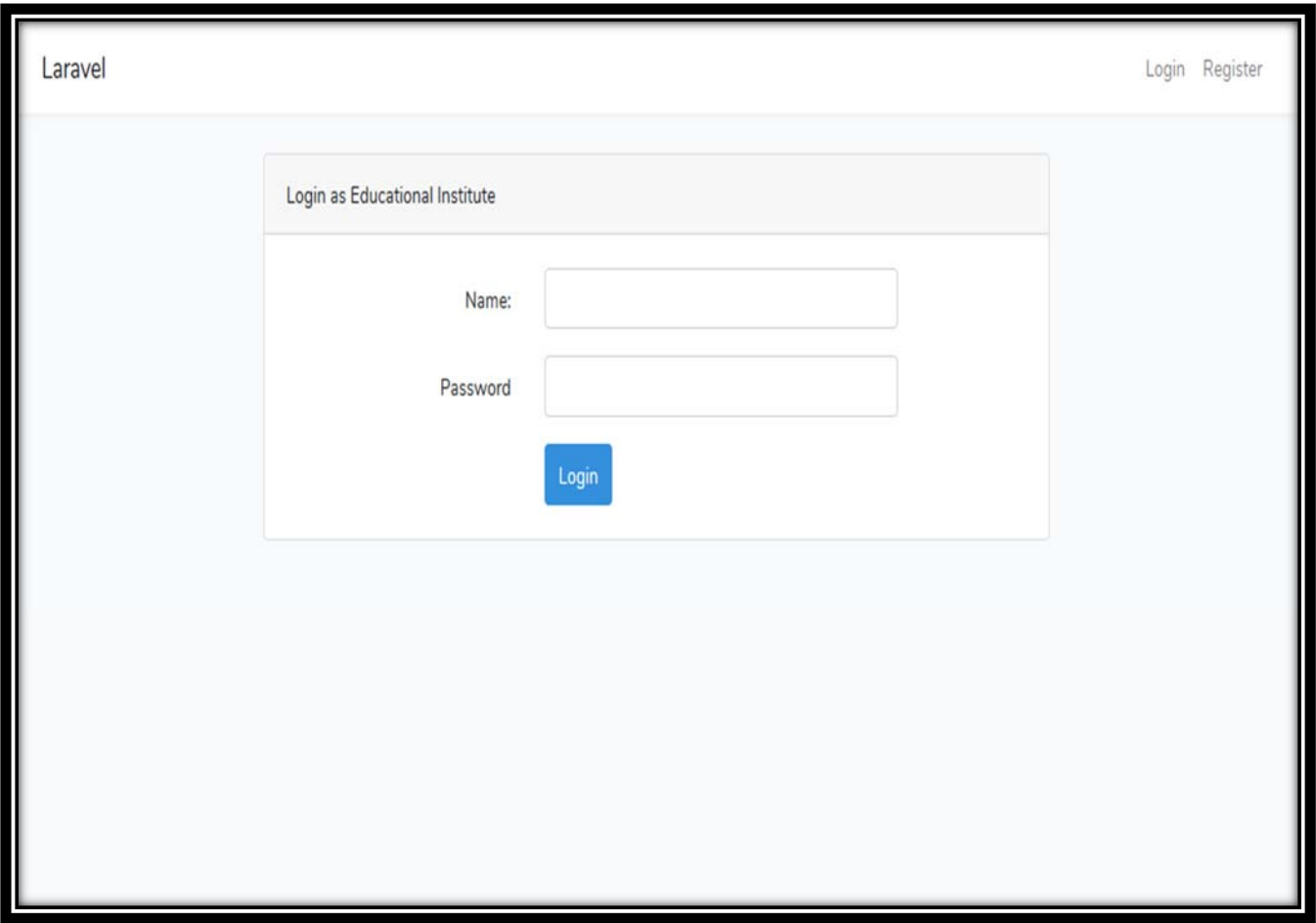
Figure (21): "Educational_Login.blade.php"

♥ This page will show after logging in as an educational institute.

The second scenario:

The 2ⁿᵈ page in the second scenario:
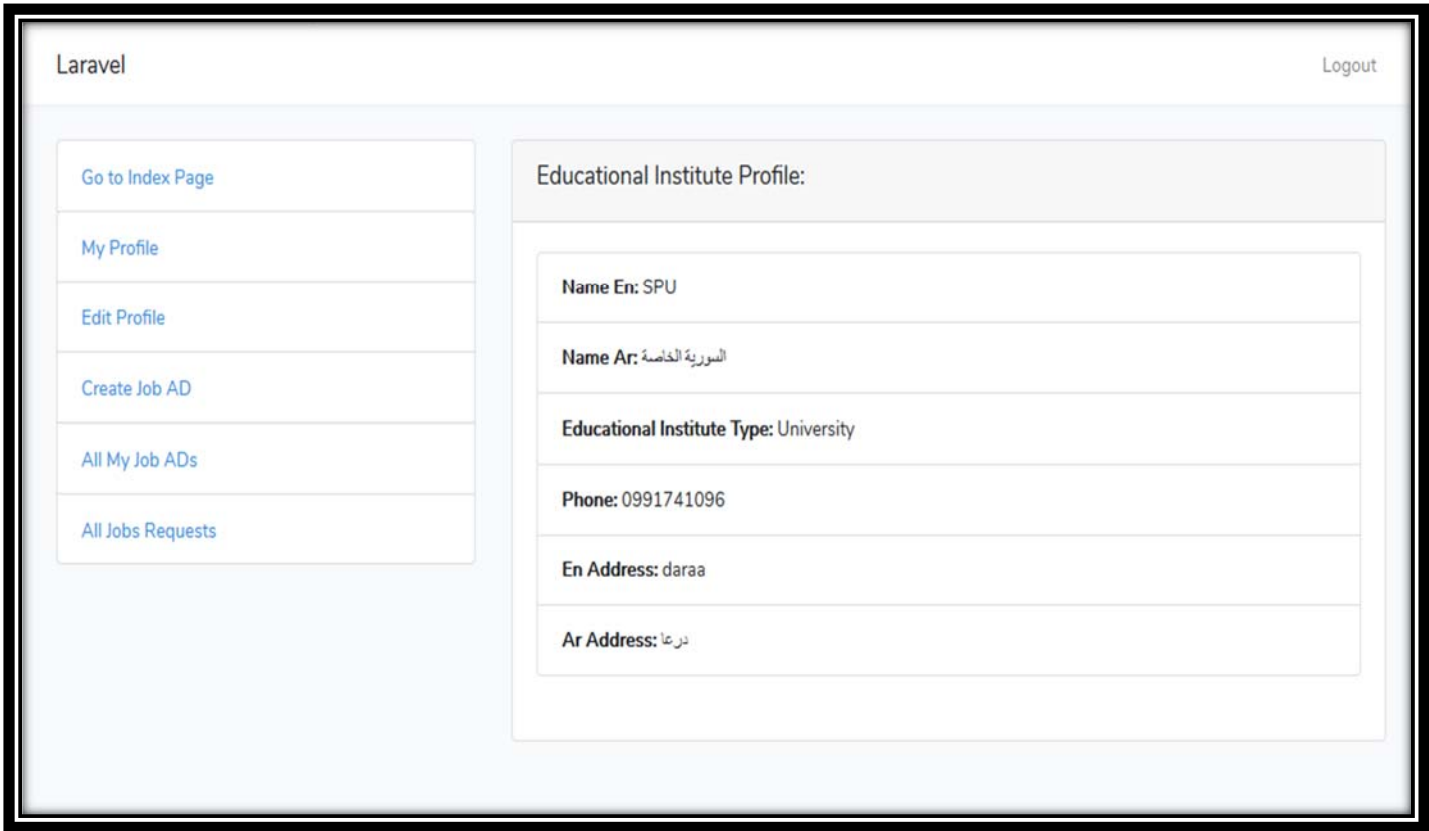
Figure (22): "Educational_Profile_Info.blade.php"

♥ This page will show all the educational institute's information on profile.

The second scenario:

The 3rd page in the second scenario:

Figure (23): "Update_Educational_Profile.blade.php"

♥ This page will show when the educational institute wants to update the profile info.

The second scenario:

The 4th page in the second scenario:
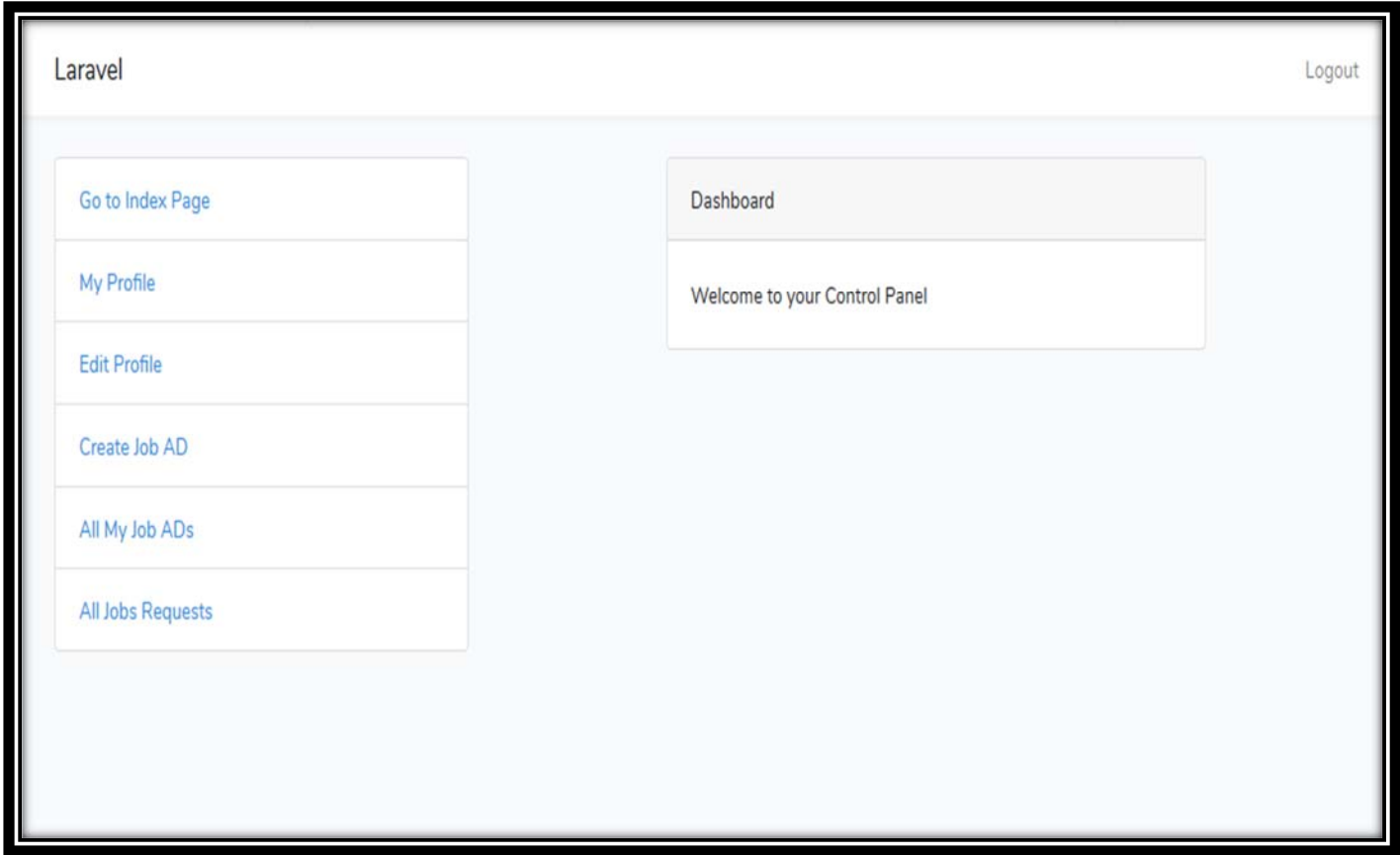
Figure (24): "Educational_Dashboard.blade.php"

♥ This page will show when the educational account wants to the dashboard page to manage the profile.

The second scenario:

The 5th page in the second scenario:
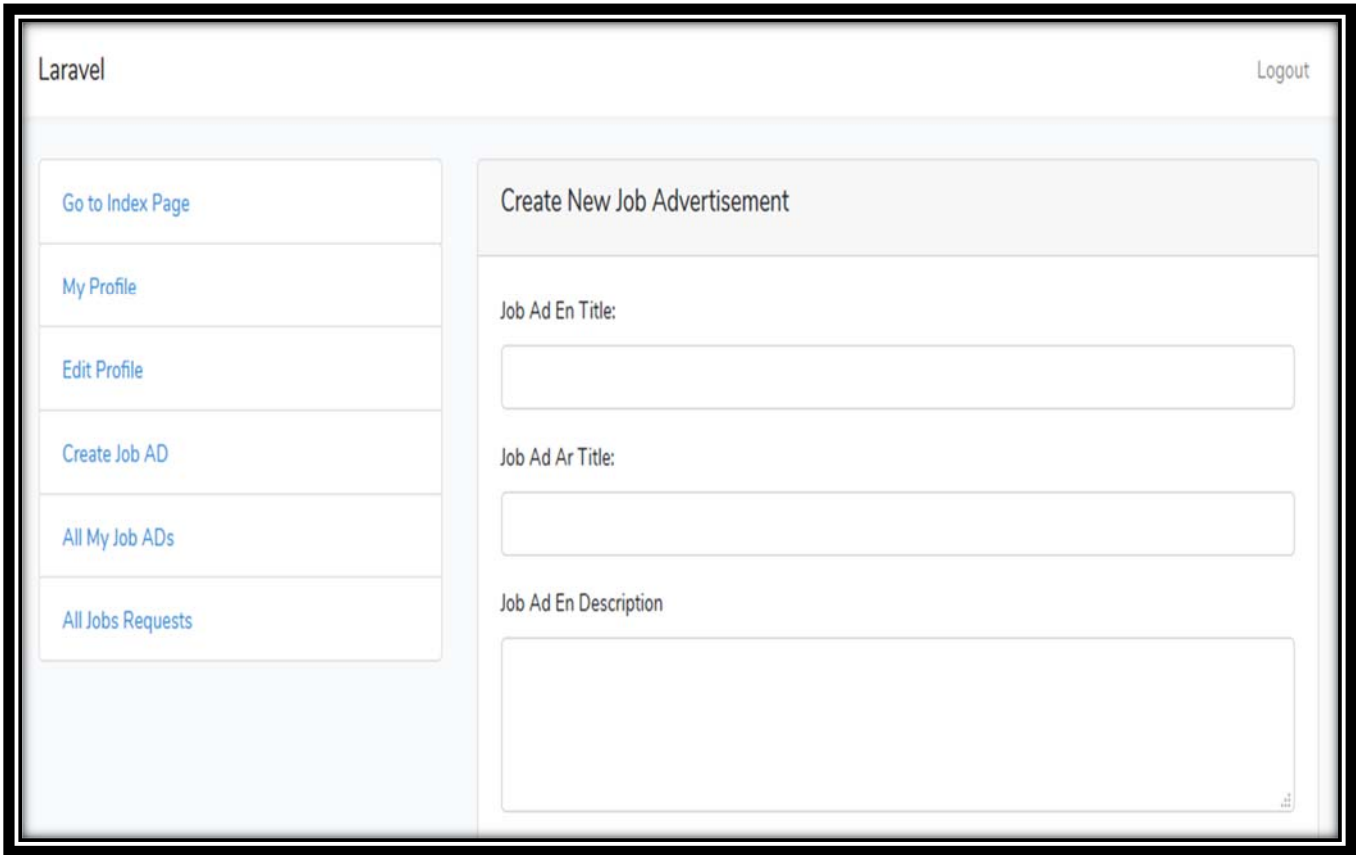
Figure (25): "Create_Job_Advert.blade.php"

♥ This page will show when the educational account creates a job advertisement from the dashboard.

The second scenario:

The 6th page in the second scenario:
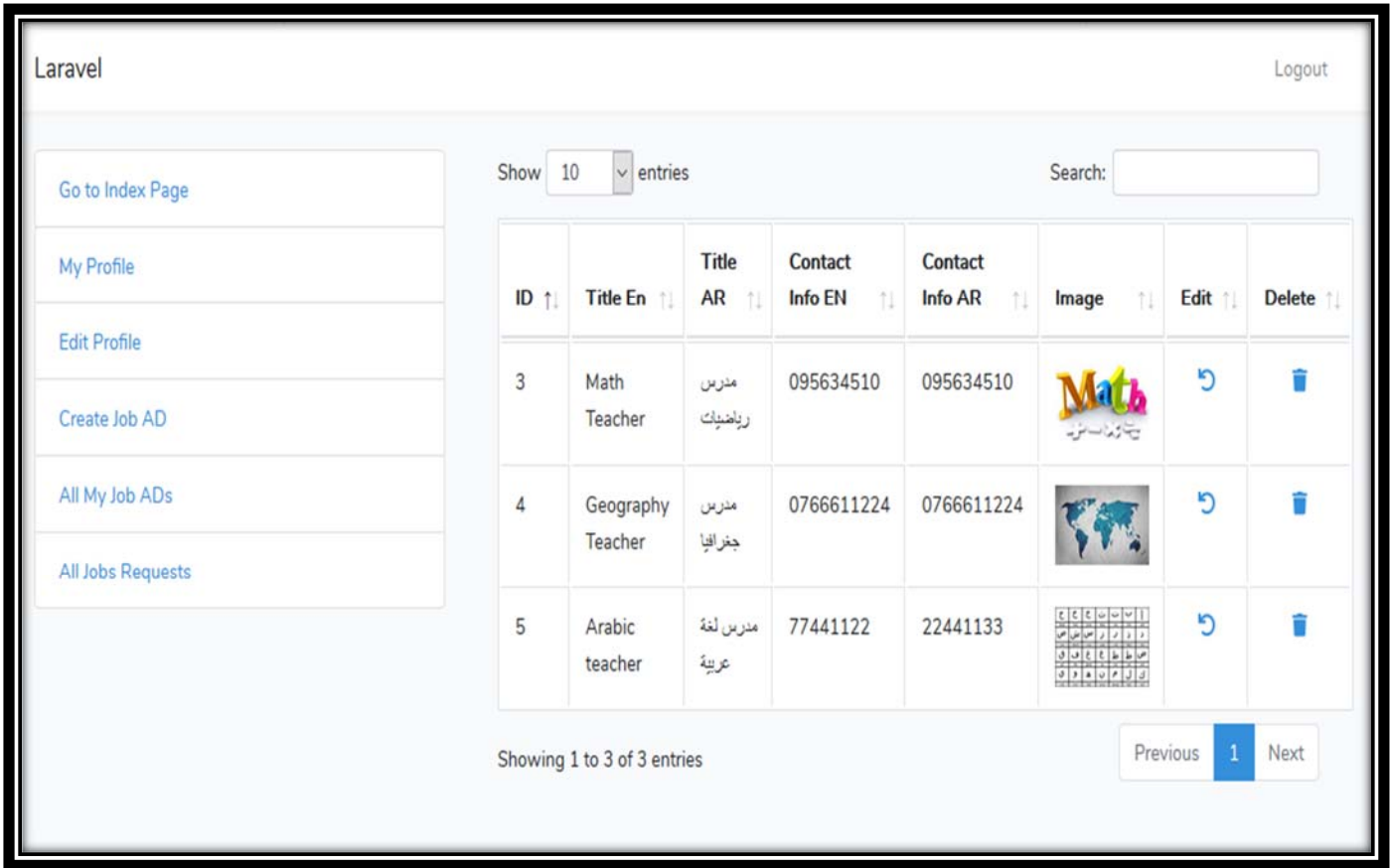
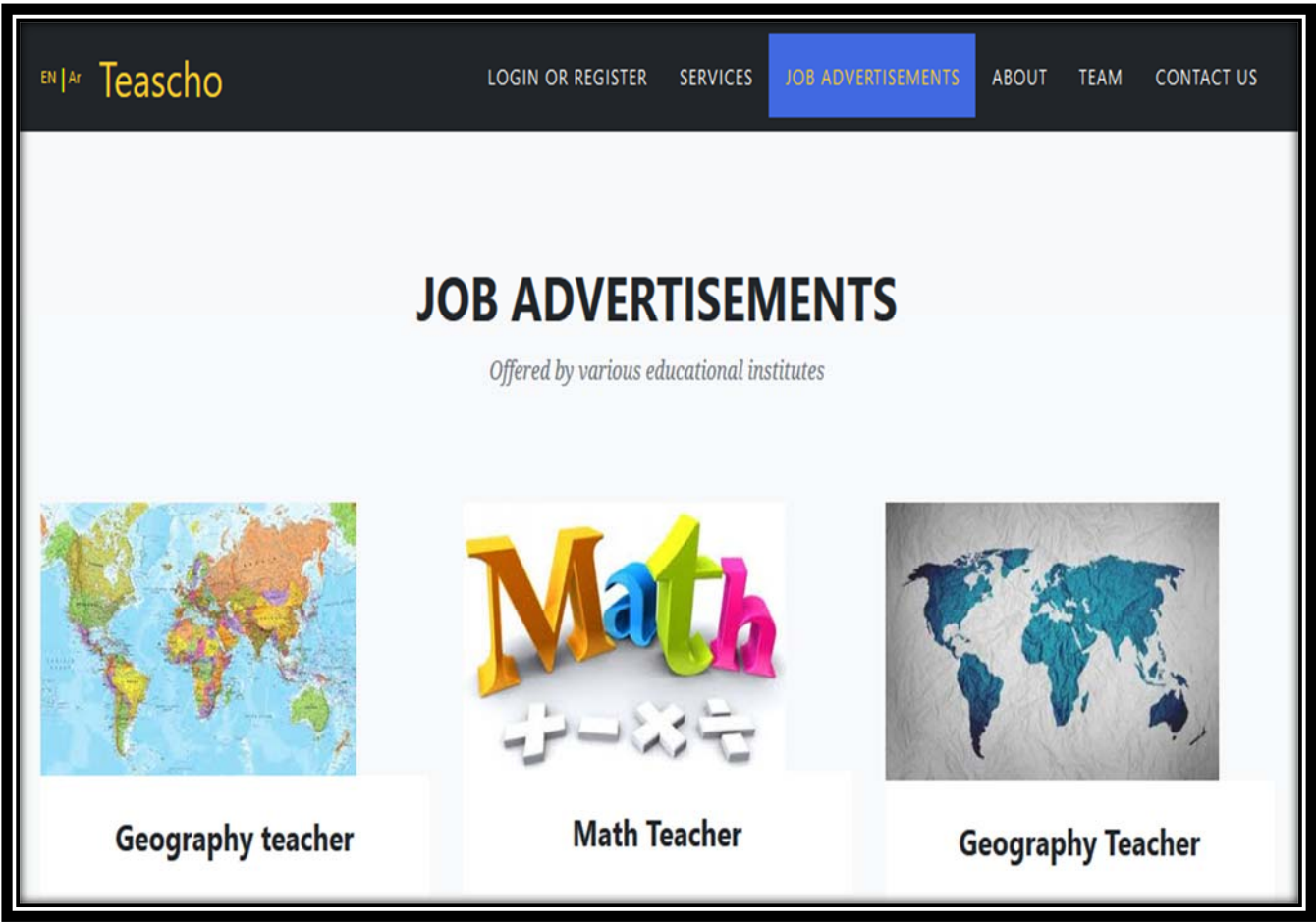**Figure (26): "View_Job_Advert.blade.php"**

♥ This page will show all the job advertisements that have been created
by the educational institute.

The third scenario:

The 1st page in the third scenario:
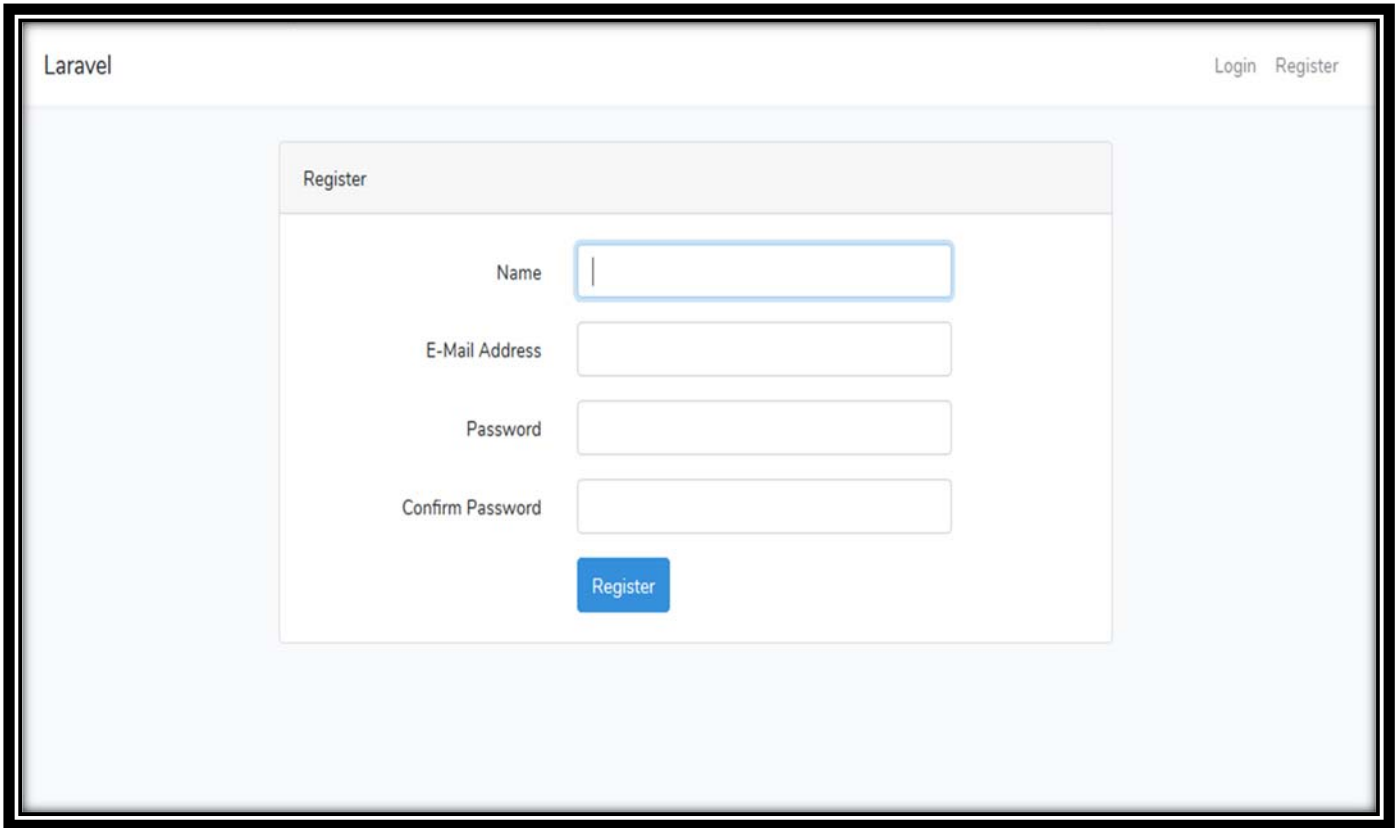
Figure (27): "Register_As_User.blade.php"

♥ This page will show when the visitor wants to register and become a user in the website.

The third scenario:

The 2nd page in the third scenario:
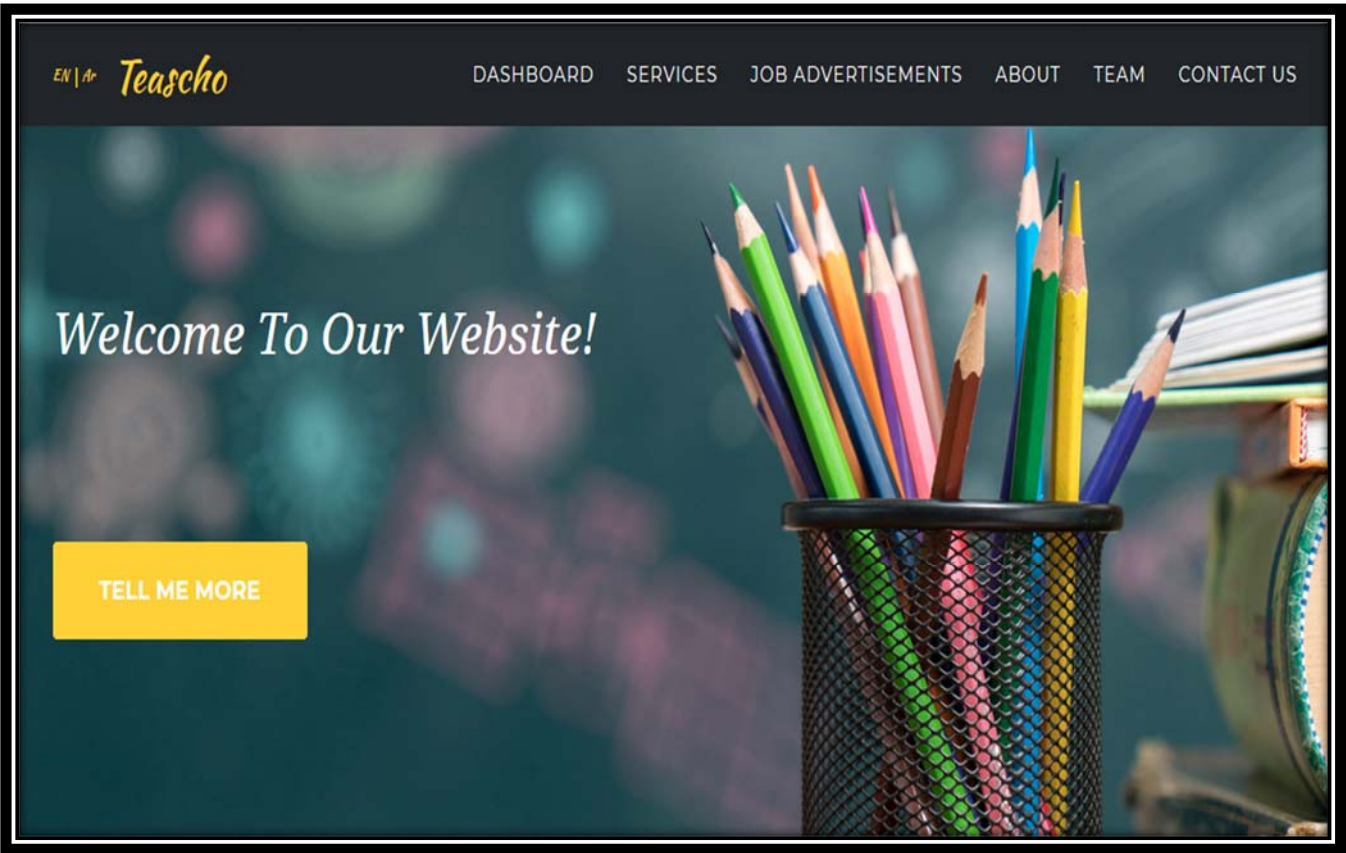
Figure (28): "Home_Page.blade.php"

♥ This page will show when the user creates an account and go to the home page of the website**.**

The third scenario:

The 3rd page in the third scenario:
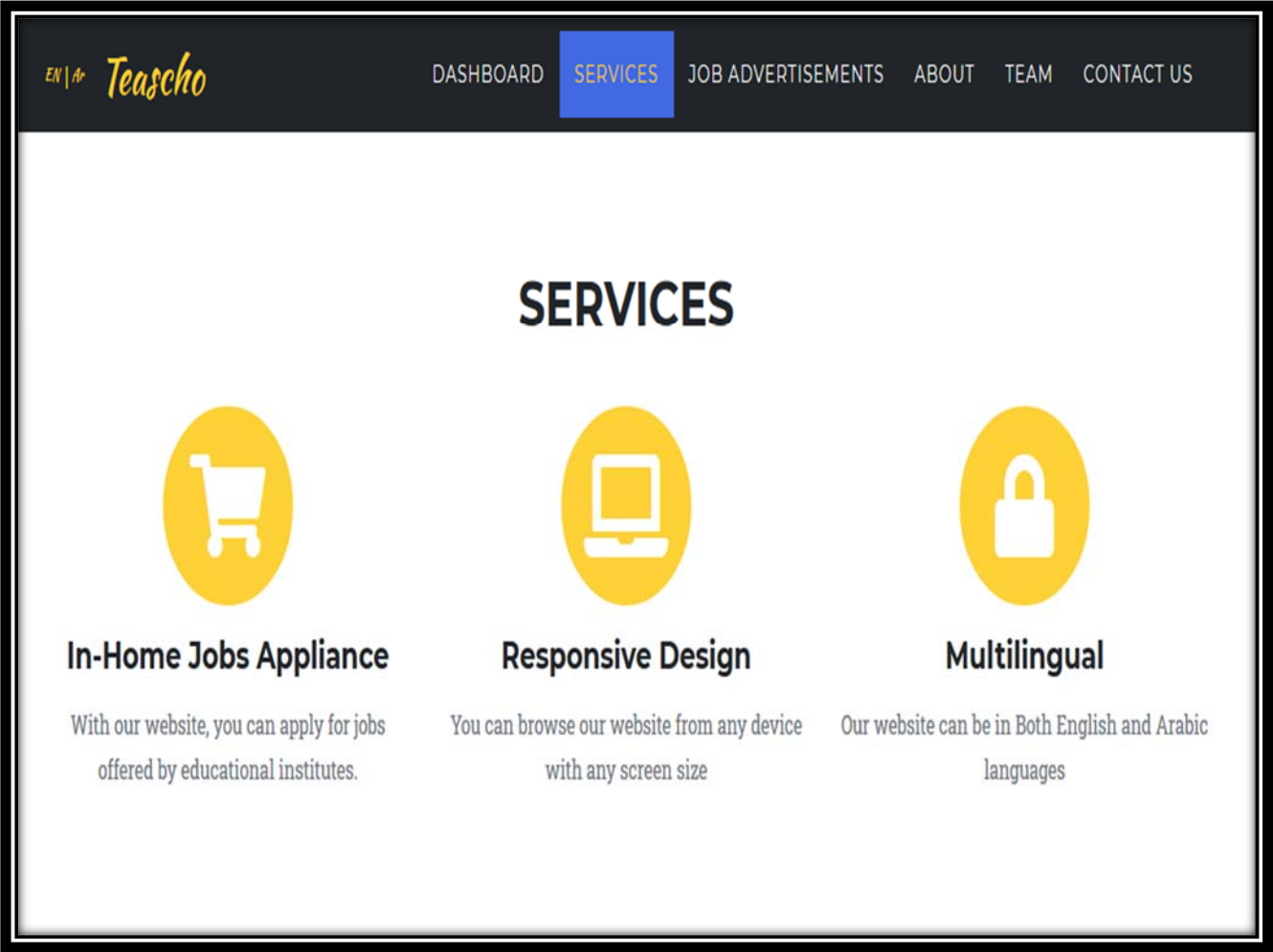
Figure (29): "Home_Sevices.blade.php"

♥ This page will show the services of our website to the user.

The third scenario:

The 4th page in the third scenario:

Figure (30): "Job_Advertisements.blade.php"

♥ This page will show all the job advertisement that have been published by the educational institute.

The third scenario:

The 5th page in the third scenario:

Figure (31): "Job_Advert_Detail.blade.php"

♥ This page will show the details about an existing job advertisement.

The 4th scenario:

The 1st page in the 4th scenario:
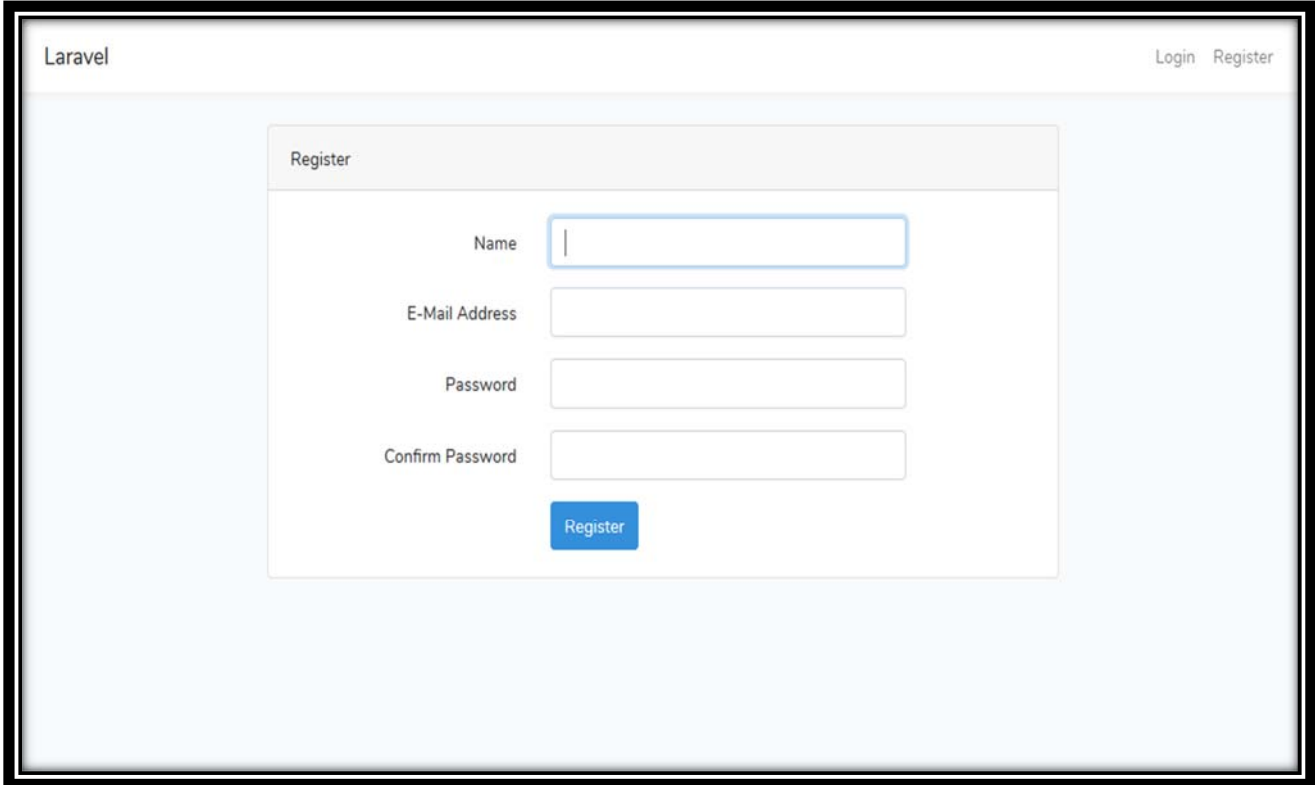
Figure (32): "Register_As_Educational.blade.php"

♥ This page will show when the educational institute Registers to create an account.
♥ After creating an educational account, the system will move to the home page of the website to let the educational account enjoys all features and services like: updating profile info or publishing a job advertisement.

The 4ᵗʰ scenario:

The 2ⁿᵈ page in the 4ᵗʰ scenario:

Figure (33): "Contact_Us.blade.php"

♥ This page will show when the educational account wants to contact with our team and send messages to them.

The 5ᵗʰ scenario:

♥ This scenario requires to login as educational account:

Figure (34): "Job_Application.blade.php"

♥ This page will show when the educational account wants to know how many job requests are there in order to choose the suitable one from them.

The 6th scenario:

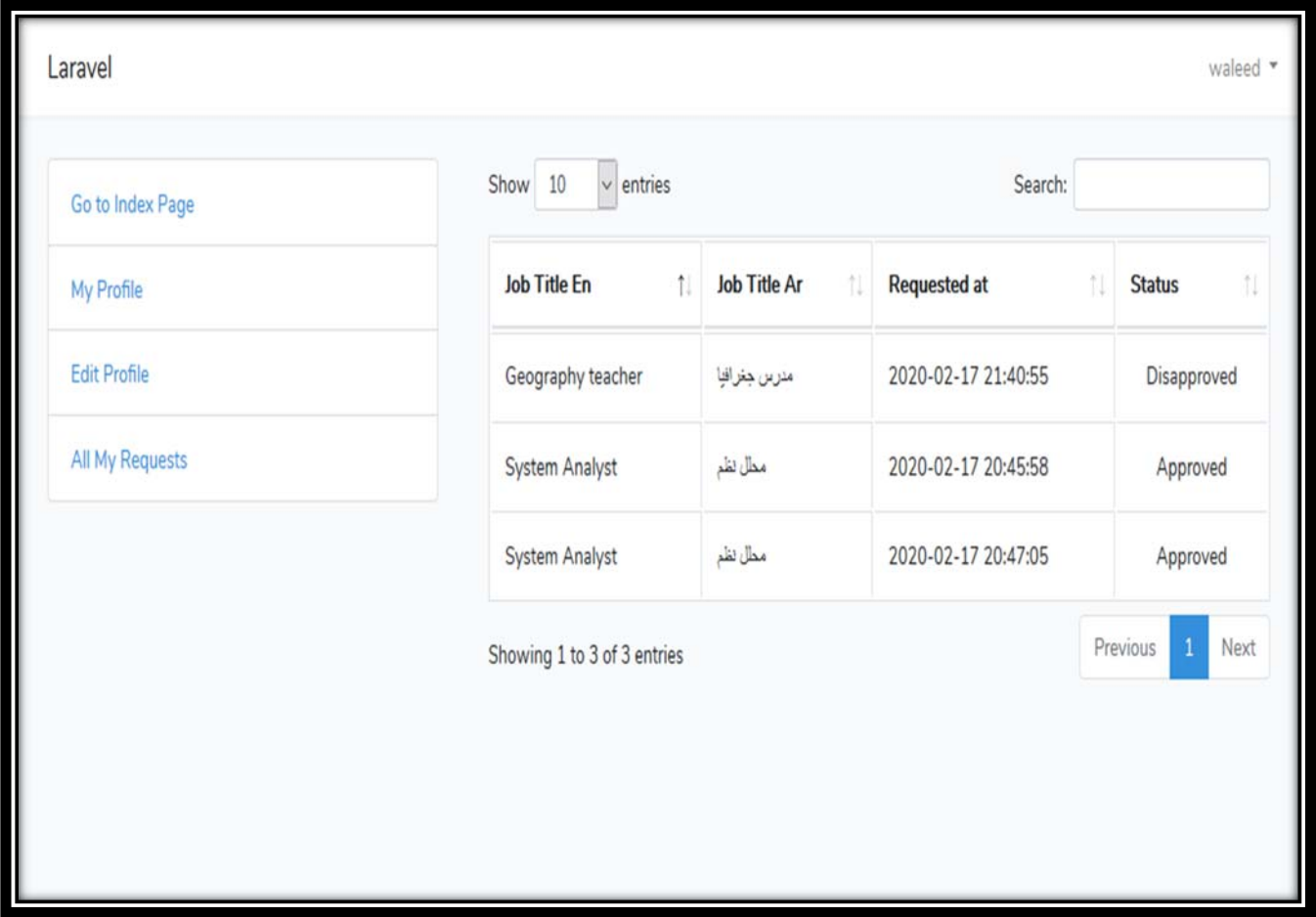♥ This scenario requires to login as user:

Figure (35): "View_Request_Status.blade.php"

♥ This page will show when the user wants to know the status of his job requests, either he/she was approved or not.

The 7ᵗʰ scenario:

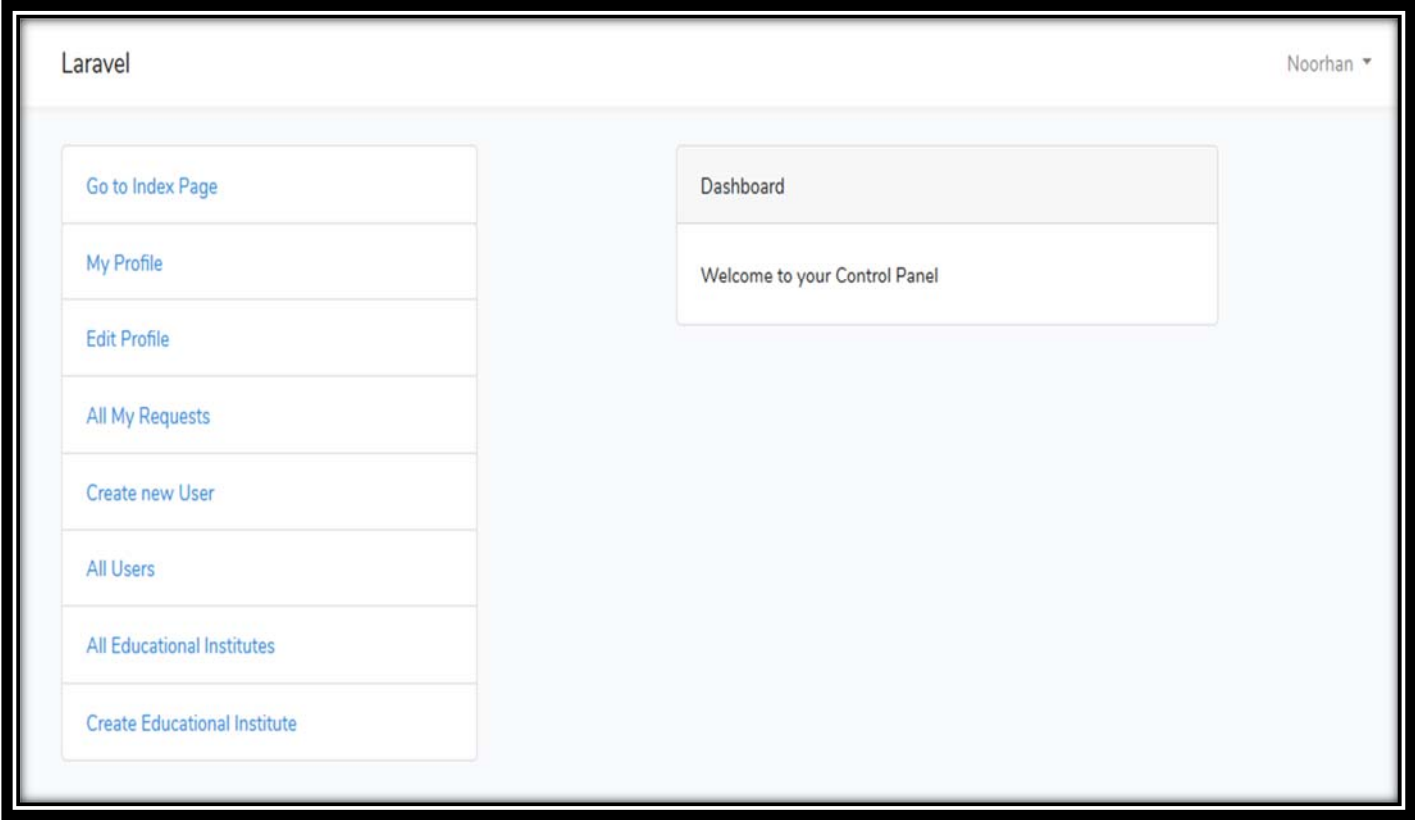♥ This scenario requires to login as Admin:

Figure (36): "Admin_DashBoard.blade.php"

♥ This page will show when the admin goes to his/her own dashboard to manage accounts, or to creates accounts.

The 7ᵗʰ scenario:

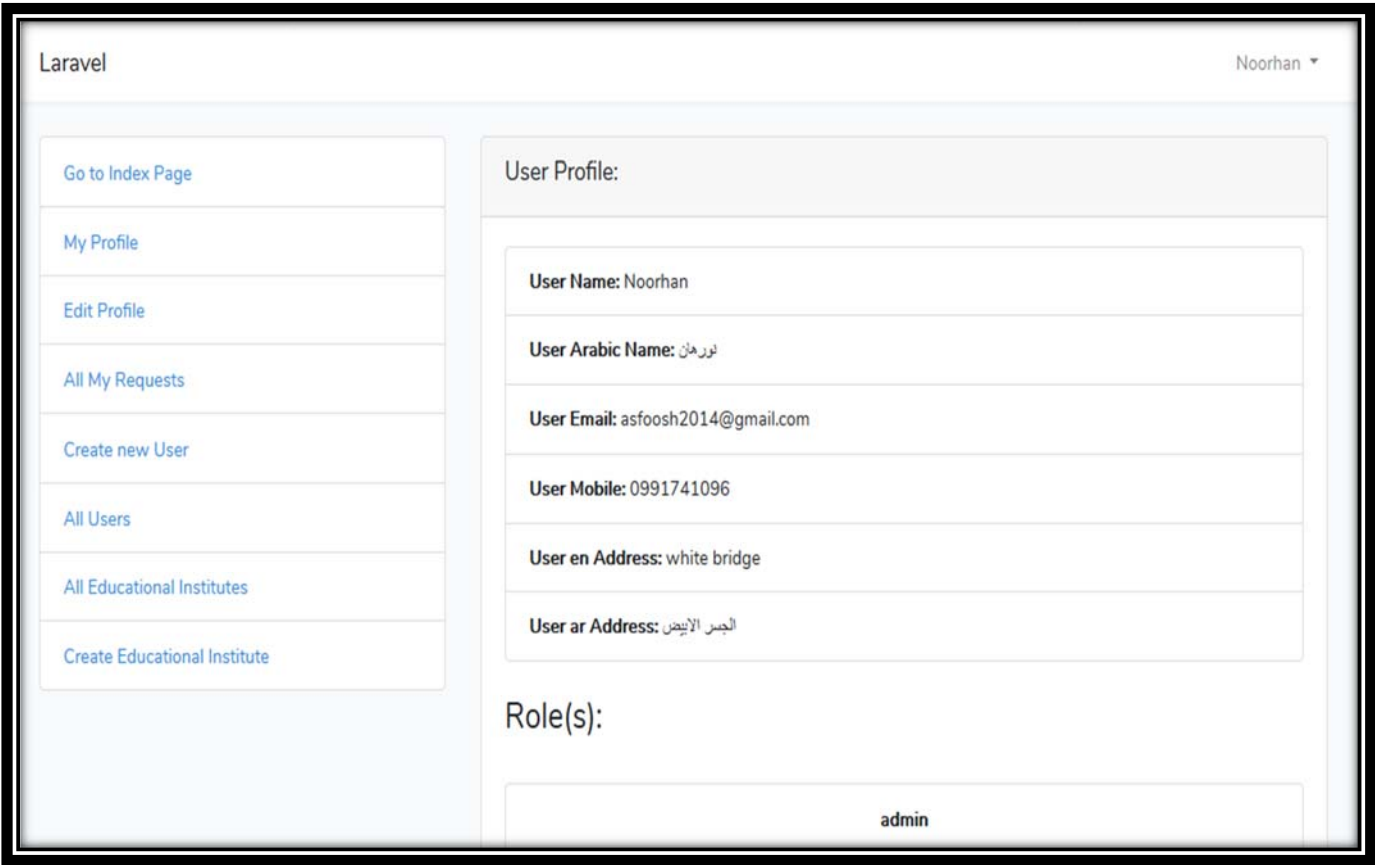♥ The 2ⁿᵈ page in the 7ᵗʰ scenario:

Figure (37): "Admin_Profile_Page.blade.php"

♥ This page will show when the admin goes to his/her profile page to see the information or update on it.

The 7th scenario:

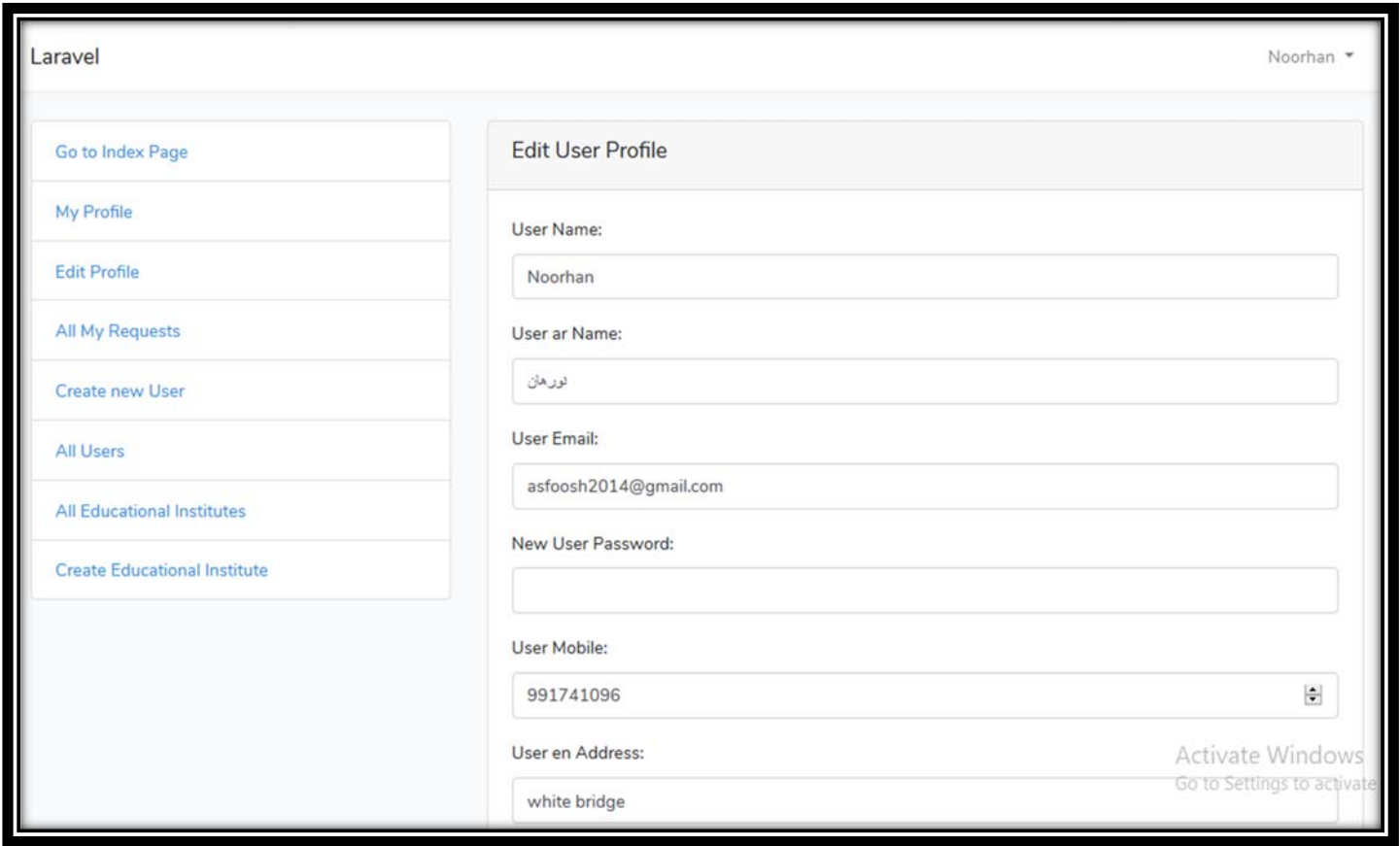♥ The 3rd page in the 7th scenario:

Figure (38): "Update_Admin_Profile.blade.php"

♥ This page will show when the admin wants to update his/her profile.

The 7th scenario:

♥ The 4th page in the 7th scenario:

Figure (39): "Update_Admin_Profile2.blade.php"

♥ This page has the rest of his personal info, so he can update them.

The 7th scenario:

♥ The 5th page in the 7th scenario:

Figure (40): "Create_User_Account.blade.php"

♥ This page will show when the admin wants to create account for user.

The 7th scenario:

♥ The 6th page in the 7th scenario:

Figure (41): "Create_User_Account2.blade.php"

♥ This page has the rest of the user personal info to continue the creation process.

The 7th scenario:

♥ The 7th page in the 7th scenario:
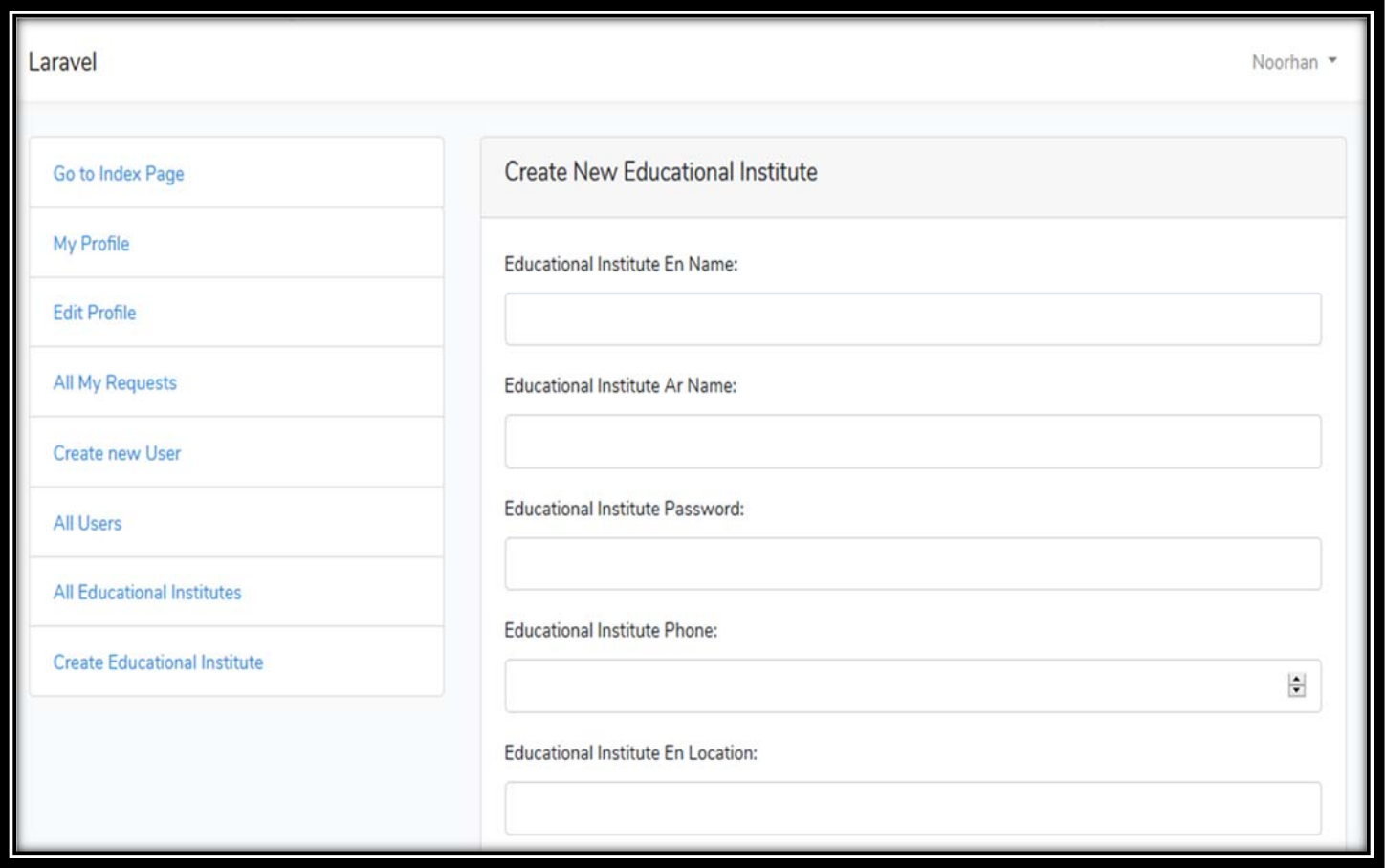

Figure (42): "Create_Educational_Account.blade.php"

♥ This page will show when the admin wants to create account for the educational institute.

The 7ᵗʰ scenario:

♥ The 8ᵗʰ page in the 7ᵗʰ scenario:

Figure (43): "Create_Educational_Account2.blade.php"

♥ This page has the rest of the educational institute personal info to continue the creation process.

5.1 Technologies used to build the System

```
        ( Laravel )    • Laravel: is the PHP frame
        (   5.7   )      work for web development.
                       • It was the main core for
                         our system.


                       • It is  software server used
( Teascho ) ( Xampp )    to test Php,Mysql,perl.
                       • We use it to make a local
                         host web server.


                       • MySQL is the relational
            ( Mysql )     database management
                         system.
                       • We use it to create our
                         Database.


        (Notepad++)    •  Notepad++ is a text and
                          source code editor.
                       •  We use it to build the code.
```
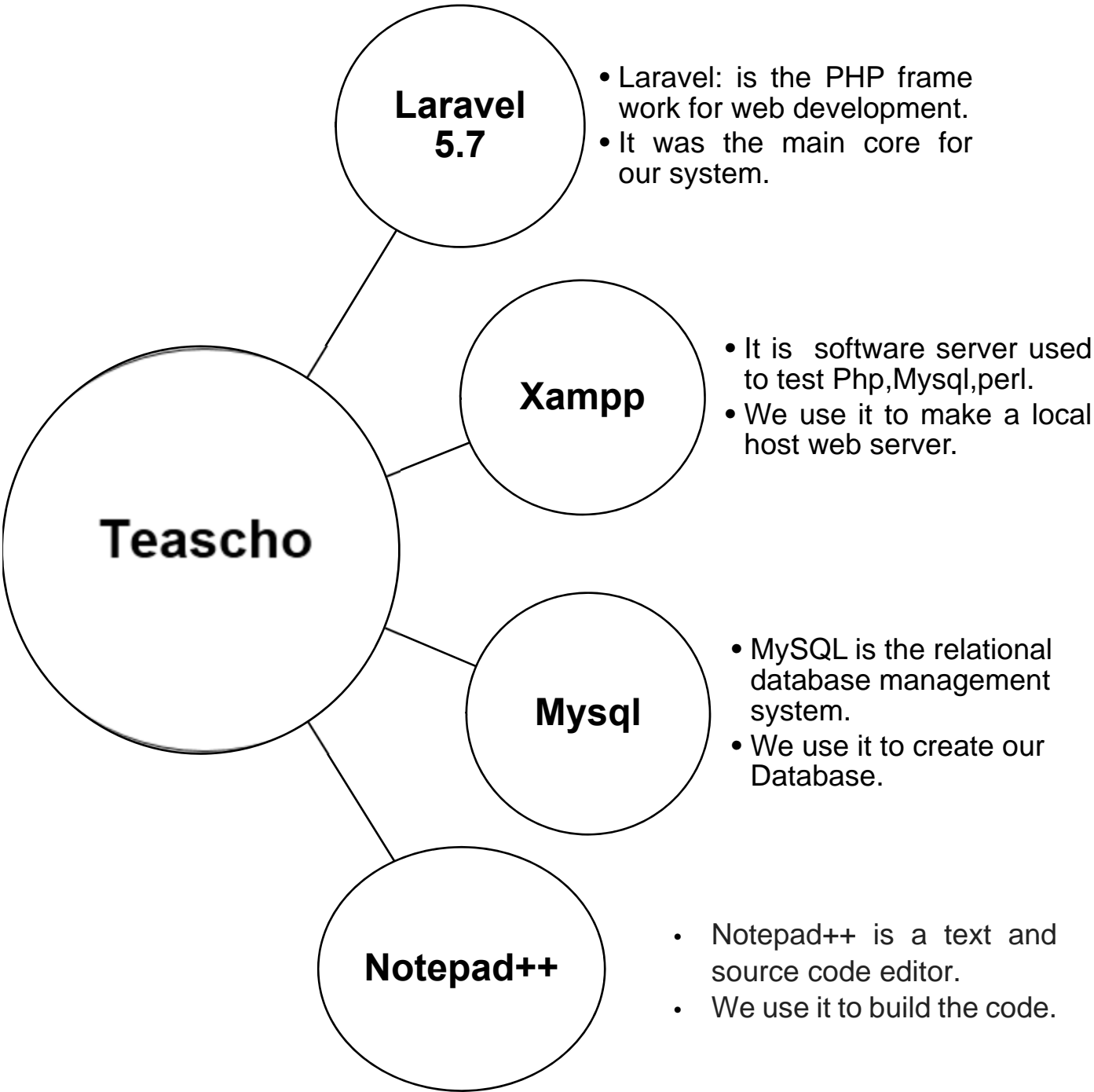
5.2 Problems Encountered

❖ We had a lot of difficulties and faced a major problem such as:
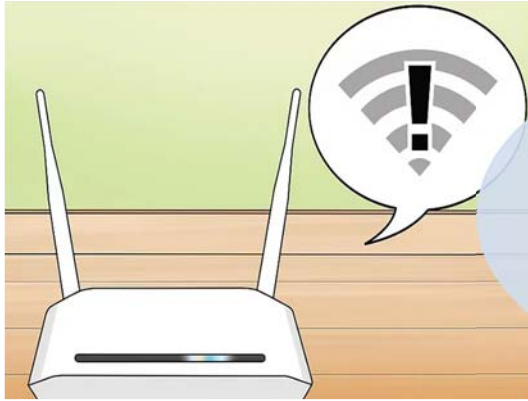
Lack of internet speed which affects us the most, and made our working timeline schedule unorganized, and related to internet anytime day or night

Lack of knowledge in the Educational Systems, and lack of information and data sources that are related to it

Lack of time which made a huge mess.

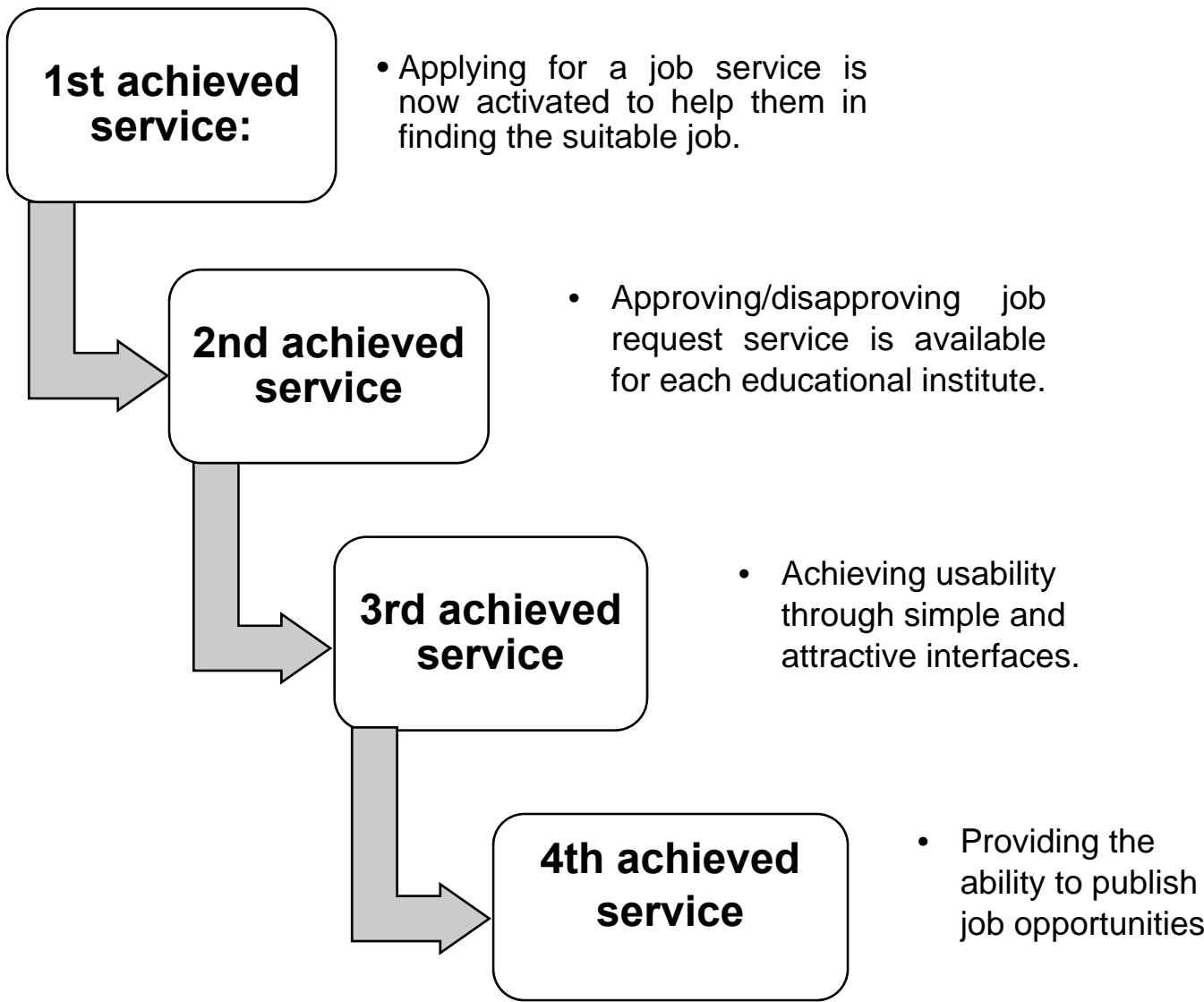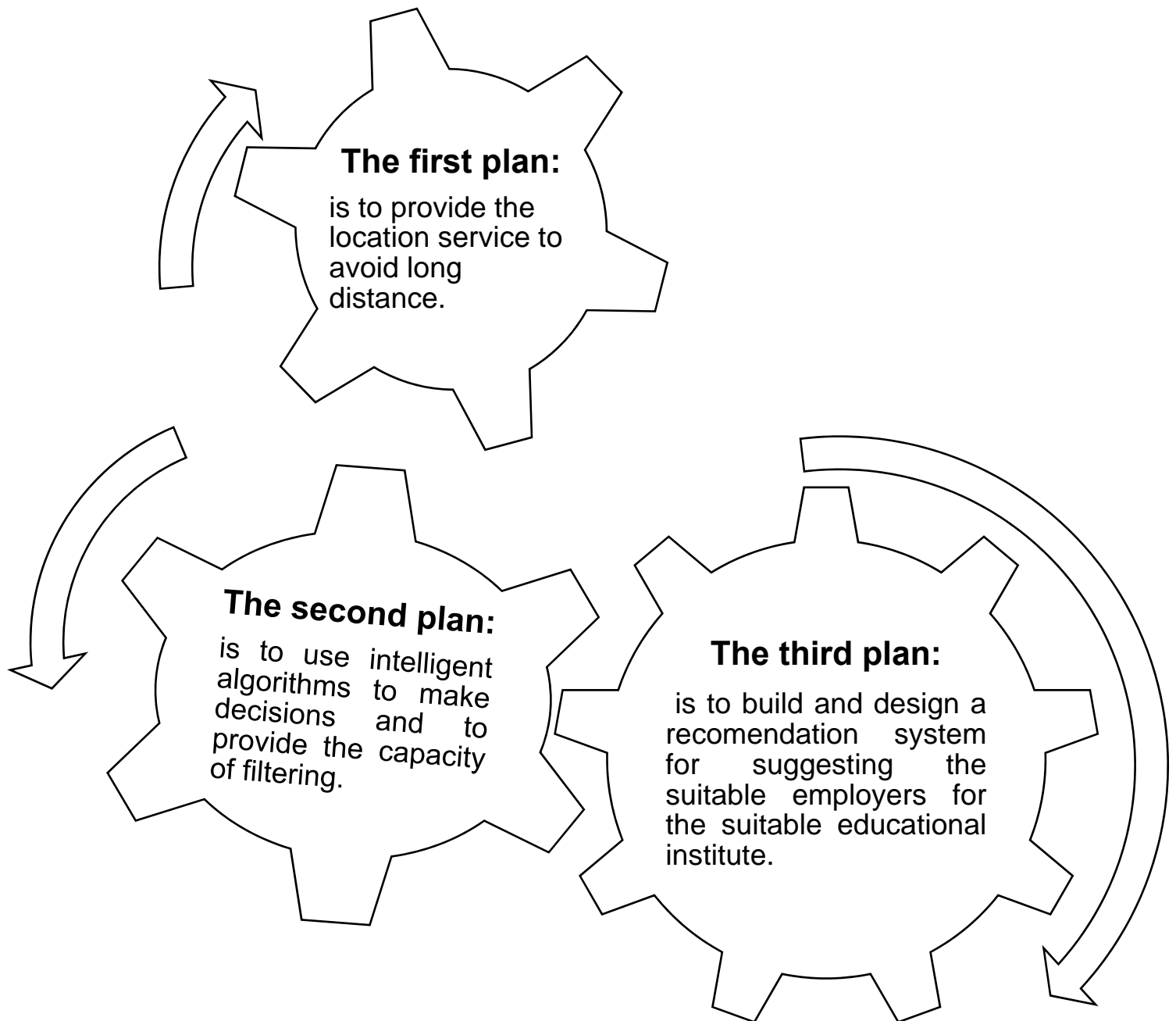# 5.3 Conclusion

❖ All the previous stages were the guide to build this system and to create a wonderful website that serves all our goals and all the needs of the educational institutes, and here are some of our achieved services:

1st achieved service:
- Applying for a job service is now activated to help them in finding the suitable job.

2nd achieved service
- Approving/disapproving job request service is available for each educational institute.

3rd achieved service
- Achieving usability through simple and attractive interfaces.

4th achieved service
- Providing the ability to publish job opportunities

❖ These services were achieved through using a special web development tools and software in an integrated environment to let the site perform well without any errors or problems.

❖ Our website is having the usability feature through simple interfaces and clear description for each process.

❖ The website is in two different languages: Arabic and English.

❖ By the end of this chapter you will know how much this website is helpful for anyone who want to find a job in the educational institutes, and how much it is effective to help the educational institutes in finding employers.

❖ **working in the web development field acquires to follow the track of development so we decided to perform this future plans:**

The first plan:

is to provide the location service to avoid long distance.

The second plan:

is to use intelligent algorithms to make decisions and to provide the capacity of filtering.

The third plan:

is to build and design a recomendation system for suggesting the suitable employers for the suitable educational institute.

References and Links

📖 **Learning-PHP-MySQL-JavaScript-and-CSS-2nd-Edition-1 pdf:**

https://education.fsu.edu/wp-content/uploads/2015/04/Learning-PHP-MySQL-JavaScript-and-CSS-2nd-Edition-1.pdf

📖 **Installing and performing XAMPP on Windows for PHP/MySQL:**

https://www.youtube.com/watch?v=X0_pthMQPMM

📖 **Laravel tutorial- Gabriel Carrillo pdf:**

https://www.academia.edu/37730693/laravel_tutorial

📖 **PHP: MySQL Database-W3schools:**

https://www.w3schools.com/php/php_mysql_intro.asp

📖 **Top CSS courses Online- Udemy**

https://www.udemy.com/topic/css/

📖 Online web Development & programming courses-Udemy:

https://www.udemy.com/courses/development/