JOB PORTAL

A PROJECT REPORT

**Submitted in Partial Fulfilment of the
Requirements for the Degree of**

MASTER OF COMPUTER APPLICATION

Submitted By

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CERTIFICATE

Certified that **Sudarshan Pandey (2100290140137), Arpit Gupta (2100290140037), Shivam Gupta (2100290140127), Parbhat Singh (2100290140102)** have carried out the project work having "Job Portal" for Master of Computer Applications from Dr. A.P.J. Abdul Kalam Technical University (AKTU) (formerly UPTU), Technical University, Lucknow under my supervision. The project report embodies original work, and studies are carried out by the student himself / herself and the contents of the project report do not form the basis for the award of any other degree to the candidate or to anybody else from this or any other University/Institution.

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ABSTRACT

Job portal service was developed for creating an interactive job vacancy form for candidates. This web application manage updates both from the job seekers as well as the companies. It's unique development methodology helps in acquiring the client and candidate information and separating them according to the job requirements and vacancies.

The online access to it provides details of the job. An employer being registered in the web site has the facility to use the services. Being an authorized user he can publish vacancy details and can search no of Employees on portal and also he can search candidates on basis of the key skill which employee provides on registration.

ACKNOWLEDGEMENTS

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CHAPTER 1

INTRODUCTION

The **Job portal** is a platform for **job seeker** (student) and **job provider** (company). The Student or Job seeker can easily find and apply for job by login into system. The Employer or company can easily get expert employee from our job portal site by posting a job. The job portal website is a common place between job seeker and company.

The job seeker can login in his account and can get the details of company lists which match with his profile or education detail. So job seeker can easily apply to this job and he can also send message to company for other inquiry. The traditional methods for recruitment includes Job fairs, University career employment services, Employee referrals, advertising in the newspapers, televisions etc.With the advancement in technology and growth of internet usage, the e-recruitment has revolutionized the way organizations hire and candidates search for jobs.

This project is aimed at developing an online search Portal for the Placement Details for job seekers. The system is an online application that can be accessed throughout the organization and outside as well with proper login provided. This system can be used as an Online Job Portal for job seekers. Job Seekers logging should be able to upload their information in the form of application. Visitors/Company representatives logging in may also access/search any information put up by Job aspirants.

As of Indian market, there is ample opportunities for the job portal sites, as more and more number of educated and skilled young people are coming out each and every year. Also, as the growth rate of India is zooming to be at a healthy rate over 7%, so it is boom time for corporate also. So, more and more number of lucrative careers will be available for the job seekers. So, it is now the right period for the job portal sites to think out of the box, and to make most of the opportunities available.

The web application "Job Search Portal" provides an easy and convenient search application for the job seekers to find their desired jobs and for the recruiters to find the right job, candidate. Job seekers from any background can search for the current job openings. Job seekers can register with the application and update their details and skill set. They can search for available jobs and apply to their desired positions. Android, being open source has already made its mark in the mobile application development. To make things handy, the user functionalities are developed as an Android application. Employer can register with the application and posts their current openings. They can view the Job applicants and can screen them according to the best fit. Users can provide a review about an organization and share their interview experience, which can be viewed by the Employers.

1.1 Project Description

1.1.1 <u>Job Seeker Module</u>:

- In jobseeker module candidate will be able to create his account on the portal.
- Candidate will be able to enter his details and there will be option to upload the resume.
- After successfully creating the account candidate will be able to view jobs and be able to apply for it.
- Candidate can also contact with company, if there is any issue.

1.1.2 <u>Company Module</u>:

- In company module, company will first create the account on the portal.
- Then company will be able to upload the details of the job on the portal.
- Afterward, when candidate will applied for the job, company will shortlist the candidate resume, for further process.

1.1.3 <u>Admin Module</u>

- The Admin will able to manage Sinup/Login Modules.
- Admin will be able to manage the candidate details.
- This module will be able to manage company details and job details.
- Admin will be able to get the report of the students who get the job or not.

1.2 Project Scope

With the Online Job search portals, the recruitment process is speeded up at every stage from job postings, to receiving applications from candidates, interviewing process. The cost of searching/posting jobs will be much less compared to the traditional way of advertising. The traditional job recruitment process is time taking and costly.

As of Indian market, there is ample opportunities for the job portal sites, as more and more number of educated and skilled young people are coming out each and every year. Also, as the growth rate of India is zooming to be at a healthy rate over 7%, so it is boom time for corporate also. So, more and more number of lucrative careers will be available for the job seekers. So, it is now the right period for the job portal sites to think out of the box, and to make most of the opportunities available

This system can be used as an Online Job Portal for the Placements providing to the un employees who are seeking for a job placement. Job Seeker logging into the system and he can should be able to upload their information in the form of a CV. Visitors/Company representatives logging in may also access/search any information put up by Job Seeker.

The **Job portal** is a platform for **job seeker** (student) and **job provider** (company). The Student or Job seeker can easily find and apply for job by login into system. The Employer or company can easily get expert employee from our job portal site by posting a job. The job portal website is a common place between job seeker and company.

The objective of the web as well as android application is to provide flexibility to the jobseekers by providing the functionalities of both job search and job application in a s ingle application. In addition, this application provides an effective means for the employers to post job vacancies and view the job applications by the interested applicants in a single application. Employers can also view the reviews provided by the jobseekers.

This project is aimed at developing an online search Portal for the Placement Details for job seekers. The system is an online application that can be accessed throughout the organization and outside as well with proper login provided. This system can be used as an Online Job Portal for job seekers. Job Seekers logging should be able to upload their information in the form of application. Visitors/Company representatives logging in may also access/search any information put up by Job aspirants

1.3 Hardware/Software

1.3.1 <u>Hard Requirements</u>

Hardware-	**:** Processor i3 or above
Clock speed-	**:** 3.0 GHz
RAM size-	**:** 4 GB or above
Hard Disk capacity-	**:** 500 GB or above
Peripheral Devices	

1.3.2 <u>Software Requirements</u>

Operating System-	**:** Windows 10
Browser-	**:** Google chrome or any other
Application software-	**:** Visual Studio Code
Technology	**:** PHP
Server Required-	**:** Xampp
Language Required-	**:** Html, Css, Php
Documentation-	**:** Ms Word

CHAPTER 2

LITERATURE SURVEY

Literature Review is a very important step in the software development process. Before building any new tool, we need to check the time factor, economy and company strength. When these things are fulfilled, at that point following stages is to figure out which working framework and language can be utilized for building up the device. A lot of help is required for building the tool, internal as well as external. Senior programmers can help and provide this support to the developers from various sources like research papers, books or online websites. Before building the framework the above thought are considered for building up the proposed framework. Computer plays an important role in our daily life. Anything we want we can get only In one mouse click. Speed, reliability and accuracy of the computer make it a powerful tool for different purposes. A very important and basic need of today's modern business world is the quick availability and processing of information using computer. One can easily get the type of required information within a fraction of a second. The project that we have taken is also in this category which is used in our daily life whenever we want to purchase some items, we can easily get them at our home.

2.1 Abstract

An Online Job Portal Web application is proposed here which simplifies the process of finding job. Job portal service was developed for creating an interactive job vacancy form for candidates. This web application manage updates both from the job seekers as well as the companies. It's unique development methodology helps in acquiring the client and candidate information and separating them according to the job requirements and vacancies.

The online access to it provides details of the job. An employer being registered in the web site has the facility to use the services. Being an authorized user he can publish vacancy details and can search no of Employees on portal and also he can search candidates on basis of the key skill which employee provides on registration.

2.2 Literature Review

Job Procurement: Old and New Ways Job seeking usually involves different ways to look for jobs such as through personal contacts, direct telephone calls to employers, job agency office, scanning online job listings, etc. Before the Internet, became widely uses as a method of seeking jobs, jobseekers spent a lots of time using various methods to look for job openings. Today,

jobseekers use online methods which are very convenient and save a lot of time. Galanaki lists the following methods to be the traditional (old) ways for recruitment:

- Employment recruitment agencies
- Job fairs
- Advertising in the mass media such as newspapers
- Management Consultants
- Advertisement in television and radio
- Existing employee contacts
- Schools colleges or universities students services department
- Workers or professional referrals

These old job seeking methods are too slow, stressful, challenging and also lack quality. In addition, the applicants have to consider the cost and the amount of time to get the information they need, and other preparations they have to make. Finding all available job vacancies is a main step at in the job-seeking process. The Internet is now a powerful tool that jobseekers can use. Today, there are many sites that advertise job positions to be filled by people with certain skills in various fields. The Internet plays an important role in the area of human resource planning and development. Most planning and development organizations are now using computer technology and the Internet for staff recruitment. It should be noted that although the Internet has facilitated the process of job-seeking, it has not replaced the traditional methods, completely.

As of Indian market, there is ample opportunities for the job portal sites, as more and more number of educated and skilled young people are coming out each and every year. Also, as the growth rate of India is zooming to be at a healthy rate over 7%, so it is boom time for corporate also. So, more and more number of lucrative careers will be available for the job seekers. So, it is now the right period for the job portal sites to think out of the box, and to make most of the opportunities available

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The **Job portal** is a platform for **job seeker** (student) and **job provider** (company). The Student or Job seeker can easily find and apply for job by login into system. The Employer or company can easily get expert employee from our job portal site by posting a job. The job portal website is a common place between job seeker and company.

2.3 Modules of The Application

- ### Registration

  It is use for adding the new users that are using or logging in to the application for the first time. It asks for the username password mobile no email by which the user can login again whenever he/she wants to use the app by using the signing credentials they have put at the time of registration.

- ### Login

  After registering the user has to login with the credentials to verify themselves.

- ### Forgot Password

  This module enables users to generate new passwords using their email addresses. link to the indicated mail is sent to the user. He can generate a new password by navigating to that link. The user can now log in with his new credentials.

- ### MailBox Module

  This module is provided for communication between the jobseekers and the job provider company within the portal they both can communicate very easily.

2.4 Service To The Candidate

- ### Home Page

  All the job post can be seen on this page along with various company details and links of the modules.

- ### View Job Post

  This use case denotes a set of actions required for Employer to view all the jobs posted by the Employer.

- ### Apply for Job

  This use case denotes a set of actions required for Job Seeker to apply for an available job vacancy

- **Search Job Posts**

  This use case denotes a set of actions required for Job Seeker to search available and active jobs.

- **Add Reviews**

  This use case denotes a set of actions required for Job Seeker to add Reviews for an organization that can be viewed by the Employer.

- **Profile Page**

  A user profile is a collection of settings and information associated with a user. It contains critical information that is used to identify an individual, such as their name, age, portrait photograph and individual characteristics such as knowledge or expertise.

2.5 Service To The Company

- **Add Job Vacancy**

  This use case denotes a set of actions required for Employer to post a job vacancy.

- **Activate/De-activate Account**

  This use case denotes a set of actions required for admin to activate or de-activate the Employers.

- **View Applicants for a Job Post**

  This use case denotes a set of actions required for Employer to view the list of applicants for a particular job post.

- **Activate/De-activate Job Post**

  This use case denotes a set of actions required for Employer to change the status of the Job Post.

- **View Reviews**

This use case denotes a set of actions required for Employer to view Reviews provided by the applicants.

2.6 Conclusion

The wider areas of job searching facilitate the quick and easy access to opportunities. The increasing job opportunities and changing scenario of the business environment today has made more people to search for better career and employers to search for better potential. This situation has prompted many to move to job portals to look for the ways that has been widely accepted and fully useful in job searching. In this sense the job portals assumes greater importance and we could develop such an efficient system which is used by lot many job hunters and employers. We have provided maximum security for our portal. Otp is given each time admin logins, so that no unauthorized person can access the site. Sessions are maintained throughout the project

2.7 References

[1] J. Dorn and T. Naz, "Integration of Job portals by Meta-search," in Proc. 3rd International Conf. on Interoperability for Enterprise Software and Applications, Funchal, Portugal, 2007, pp. 401-412.

[2] S. Bsiri, M. Geierhos, and C. Ringlstetter, "Structuring job search via local grammars," Advances in Natural Language Processing an Applications, pp. 201, 2008.

[3] M. Mansourvar and N. Y. Mohd, "Web portal as a knowledge management system in the universities," World Academy of Science Engineering and Technology, vol. 70, pp. 968-974, 2010.

[4] M. Gangle, "The only way is up? Employment protection and job mobility among recent entrants to European labour markets," European Sociological Review, vol. 19, pp. 429, 2007.

[5] E. Galanki, "The decision to recruit online: a descriptive study," Career Development International, vol. 7, pp. 243-251, 2002

CHAPTER 3

FEASIBILITY STUDY

A feasibility study **analyzes the viability of a project to determine whether the project or venture is likely to succeed**. The study is also designed to identify potential issues and problems that could arise while pursuing the project.

A feasibility study evaluates a project's or system's practicality. As part of a feasibility study, the objective and rational analysis of a potential business or venture is conducted to determine its strengths and weaknesses, potential opportunities and threats, resources required to carry out, and ultimate success prospects. Two criteria should be considered when judging feasibility: the required cost and expected value. A feasibility study is a comprehensive evaluation of a proposed project that evaluates all factors critical to its success in order to assess its likelihood of success. Business success can be defined primarily in terms of ROI, which is the amount of profits that will be generated by the project.

3.1 Technical Feasibility

Technical feasibility study is concerned with specifying equipment and software that will successfully satisfy the user requirement; the technical needs of the system may vary considerably. The facility to produce outputs in a given time. Our project is a web based application which is based on client-server based application. In this application every page as output is render from server to client so it is necessary that the page should be rendered in time. For this I have avoided more and more code in the page- load event. A technical feasibility study reviews the technical resources available for your project. This study determines if you have the right equipment, enough equipment, and the right technical knowledge to complete your project objectives. For example, if your project plan proposes creating 50,000 products per month, but you can only produce 30,000 products per month in your factories, this project isn't technically feasible. This assessment focuses on the technical resources available to the organization. It helps organizations determine whether the technical resources meet capacity and whether the technical team is capable of converting the ideas into working systems. Technical feasibility also involves the evaluation of the hardware, software, and other technical requirements of the proposed system. As an exaggerated example, an organization wouldn't want to try to put Star Trek's transporters in their building—currently, this project is not technically feasible.

3.2 Behavioural Feasibility

Behavioural feasibility is the measure to determine the cost and benefit of the proposed system. A project is economical feasible which is under the estimated cost for its development. These benefits and costs may be tangible or intangible. Job Portal is the cost-effective project in which there is less possibility of intangible cost so there is no difficulty to determine the cost of the project. An operational feasibility study evaluates whether or not your organization is able to complete this project. This assessment typically involves a cost/ benefits analysis of the project, helping organizations determine the viability, cost, and benefits associated with a project before financial resources are allocated. It also serves as an independent project assessment and enhances project credibility—helping decision-makers determine the positive economic benefits to the organization that the proposed project will provide.This includes staffing requirements, organizational structure, and any applicable legal requirements. At the end of the operational feasibility study, your team will have a sense of whether or not you have the resources, skills, and competencies to complete this work.

3.3 Operational Feasibility

Operation feasibility is used to check whether the project is operationally feasible or not. Our project is mainly different from the other system because of its web-support feature. So the measure for operational feasibility is something different from other system. Generally the operational feasibility is related to organization aspects. The change determination is as such that early product were either a man or group of men or the jobs based manual but now a day with the advent of Internet technology. This assessment involves undertaking a study to analyze and determine whether—and how well—the organization's needs can be met by completing the project. Operational feasibility studies also examine how a project plan satisfies the requirements identified in the requirements analysis phase of system development. This assessment typically involves a cost/ benefits analysis of the project, helping organizations determine the viability, cost, and benefits associated with a project before financial resources are allocated. It also serves as an independent project assessment and enhances project credibility—helping decision-makers determine the positive economic benefits to the organization that the proposed project will provide.

CHAPTER 4

DATABASE DESIGN

Software design sits at the technical kernel of the software engineering process and is applied regardless of the development paradigm and area of application. Design is the first step in the development phase for any engineered product or system. The designer's goal is to produce a model or representation of an entity that will later be built. Beginning, once system requirement have been specified and analyzed, system design is the first of the three technical activities - design, code and test that is required to build and verify software.

The importance can be stated with a single word "Quality". Design is the place where quality is fostered in software development. Design provides us with representations of software that can assess for quality. Design is the only way that we can accurately translate a customer's view into a finished software product or system. Software design serves as a foundation for all the software engineering steps that follow. Without a strong design we risk building an unstable system – one that will be difficult to test, one whose quality cannot be assessed until the last stage.

During design, progressive refinement of data structure, program structure, and procedural details are developed reviewed and documented. System design can be viewed from either technical or project management perspective. From the technical point of view, design is comprised of four activities – architectural design, data structure design, interface design and procedural design.

System Design is the process of designing the architecture, components, and interfaces for a system so that it meets the end-user requirements. System Design for tech interviews is something that can't be ignored! Almost every IT giant whether it be Facebook, Amazon, Google, Apple or any other ask various questions based on System Design concepts such as scalability, load-balancing, caching, etc. in the interview. This specifically designed System Design tutorial will help you to learn and master System Design concepts in the most efficient way from basics to advanced level.

Seeker Profile Builder

education_detail

user_account_id	number	PK FK
certificate_degree_name	varchar2(50)	PK
major	varchar2(50)	PK
Institute_university_name	varchar2(50)	
starting_date	date	
completion_date	date	N
percentage	number	N
cgpa	number	N

experience_detail

user_account_id	number	PK FK
is_current_job	char(1)	
start_date	date	PK
company_name	varchar2(100)	
job_location_city	varchar2(50)	
job_location_state	varchar2(50)	
job_location_country	varchar2(50)	
description	varchar2(4000)	

User Management

user_account

id	number	PK
user_type_id	number	FK
email	varchar2(255)	
password	varchar2(100)	
date_of_birth	date	
gender	char(1)	
is_active	char(1)	
contact_number	number(10)	
email_notification_active	char(1)	
registration_date	date	

user_type

id	number	PK
user_type_name	varchar2(20)	

seeker_profile

user_account_id	number	PK FK
first_name	varchar2(50)	
last_name	varchar2(50)	
current_salary	number	N
is_annually_monthly	char(1)	N
currency	varchar2(50)	N

seeker_skill_set

user_account_id	number	PK FK
skill_set_id	number	PK FK
skill_level	number	

skill_set

id	number	PK
skill_set_name	varchar2(50)	

user_log

user_account_id	number	PK FK
last_login_date	date	
last_job_apply_date	date	N

job_post_activity

user_account_id	number	PK FK
job_post_id	number	PK FK
apply_date	date	

Company Profile

company

id	number	PK
company_name	varchar2(100)	
profile_description	varchar2(1000)	
business_stream_id	number	FK
establishment_date	date	
company_website_url	varchar2(500)	

business_stream

id	number	PK
business_stream_name	varchar2(100)	

job_post_skill_set

skill_set_id	number	PK FK
job_post_id	number	PK FK
skill_level	number	

job_post

id	number	PK
posted_by_id	number	FK
job_type_id	number	FK
company_id	number	FK
is_company_name_hidden	char(1)	
created_date	date	
job_description	varchar2(500)	
job_location_id	number	FK
is_active	char(1)	

company_image

id	number	PK
company_id	number	FK
company_image	blob	

job_location

id	number	PK
street_address	varchar2(100)	
city	varchar2(50)	
state	varchar2(50)	
country	varchar2(50)	
zip	varchar2(50)	

job_type

id	number	PK
job_type	varchar2(20)	

Job Post Management

DataBase Design 1

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4.1 Database Table

4.1.1   Login Table

Field	Type	Constraints
Email	Varchar(255)	-
Password	Varchar(255)	-

4.1.2 Company Table

Field	Type	Constraints
Id_Company	int	Primary Key
Name	Varchar(255)	**-**
Company name	Varchar(255)	**-**
Country	Varchar(255)	**-**
State	Varchar(255)	**-**
City	Varchar(255)	**-**
Contact no	Varchar(255)	**-**
Website	Varchar(255)	**-**
Email	Varchar(255)	**-**
Password	Varchar(255)	**-**
About me	Varchar(255)	**-**
Logo	Varchar(255)	**-**
Active	int	**-**

4.1.3 Job Post Table

Field	Type	Constraints
Id_jobpost	int	Primary key
Id_Company	int	-
jobtitle	varchar(255)	-
minimum_salary	int	-
Maxmimum_salary	int	-
experience	varchar(255)	-
qualification	Varchar(255)	-
Create date	timestamp	-

4.1.4 Mailbox Table

Field	Type	Constraints
Id_mailbox	int	Primary key
Id_fromuser	int	-
Id_touser	Varchar(255)	-
subject	Varchar(255)	-
message	Varchar(255)	-
Created_at	timestamping	-

4.1.5 User Table

Field	Type	Constraints
Id_user	int	Primary Key
firstname	Varchar(255)	-
lastname	Varchar(255)	-
email	Varchar(255)	-
password	int	-
address	Varchar(255)	-
city	Varchar(255)	-
state	Varchar(255)	-
Contact no	int	-
qualification	Varchar(255)	-
stream	Varchar(255)	-
passingyear	int	-
dob	int	-
age	Varchar(255)	-
designation	Varchar(255)	-
resume	Varchar(255)	-
hash	Varchar(255)	-
active	int	-
About me	text	-
skill	text	-
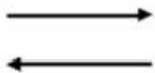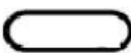
4.2 Flowchart Diagram

Flowcharts are nothing but the graphical representation of the data or the algorithm for a better understanding of the code visually. It displays step-by-step solutions to a problem, algorithm, or process. It is a pictorial way of representing steps that are preferred by most beginner-level programmers to understand algorithms of computer science, thus it contributes to troubleshooting the issues in the algorithm. A flowchart is a picture of boxes that indicates the process flow in a sequential manner. Since a flowchart is a pictorial representation of a process or algorithm, it's easy to interpret and understand the process. To draw a flowchart, certain rules need to be followed which are followed by all professionals to draw a flowchart and is widely accepted all over the countries.

Process flowchart: This type of flowchart shows all the activities that are involved in making a product. It basically provides a pathway to analyze the product to be built. A process flowchart is most commonly used in process engineering to illustrate the relation between the major as well as minor components present in the product. It is used in business product modeling to help understand employees about the project requirements and gain some insight about the project.

Data flowchart: As the name suggests, the data flowchart is used to analyze the data, specifically it helps in analyzing the structural details related to the project. Using this flowchart, one can easily understand the data inflow and outflow from the system. It is most commonly used to manage data or to analyze information to and fro from the system.

Business Process Modeling Diagram: Using this flowchart or diagram, one can analytically represent the business process and help simplify the concepts needed to understand business activities and the flow of information. This flowchart illustrates the business process and models graphically which paves a way for process improvement.

Symbol	Symbol Name	Description
	Flow Lines	Used to connect symbols
	Terminal	Used to start, pause or halt in the program logic
	Input/output	Represents the information entering or leaving the system
	Processing	Represents arithmetic and logical instructions
	Decision	Represents a decision to be made

FlowChart 1

24
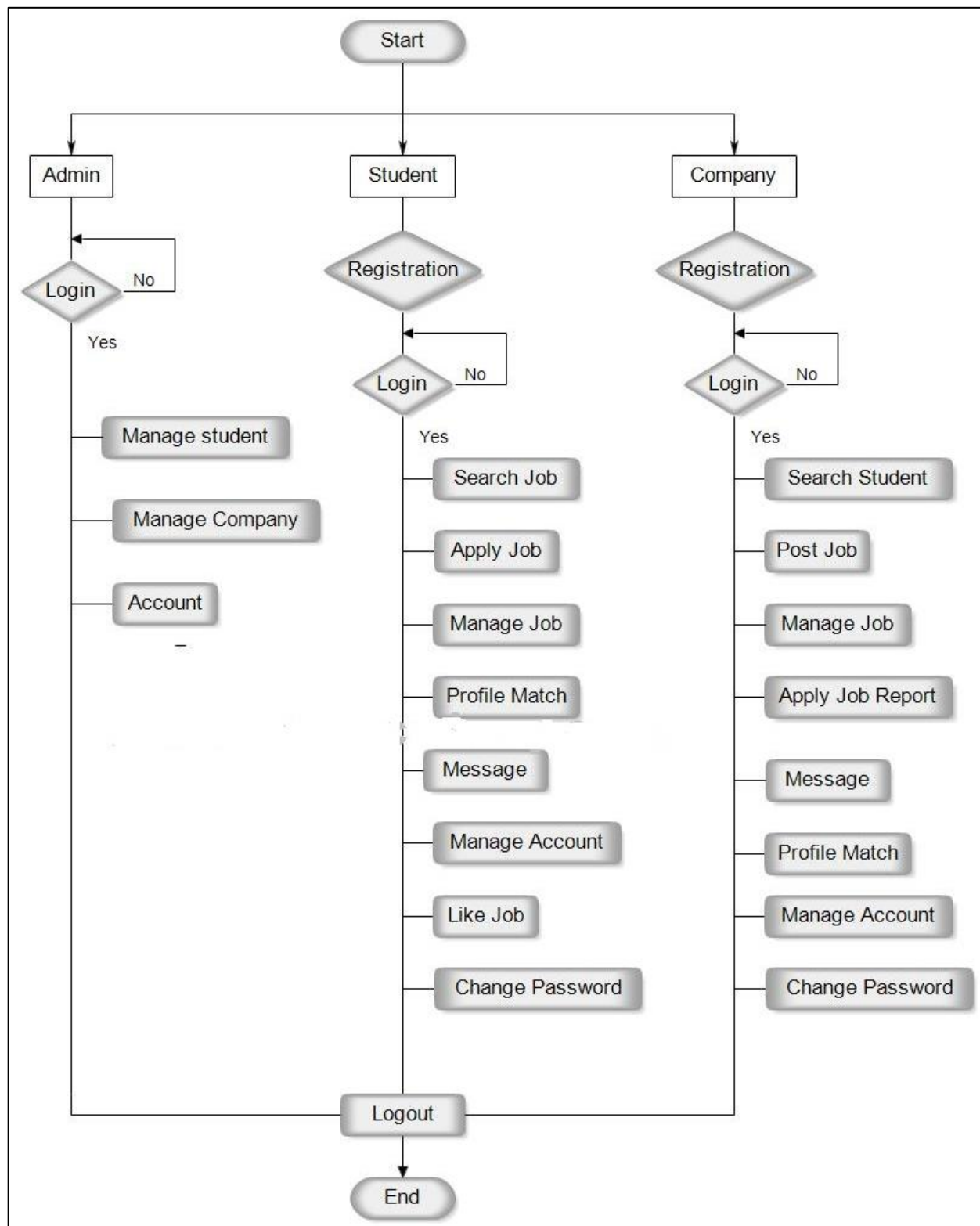
4.3 Use Case Diagram

In the Unified Modeling Language (UML), a use case diagram can summarize the details of your system's users (also known as actors) and their interactions with the system. To build one, you'll use a set of specialized symbols and connectors. A use case diagram doesn't go into a lot of detail—for example, don't expect it to model the order in which steps are performed. Instead, a proper use case diagram depicts a high-level overview of the relationship between use cases, actors, and systems. Experts recommend that use case diagrams be used to supplement a more descriptive textual use case.

UML is the modeling toolkit that you can use to build your diagrams. Use cases are represented with a labeled oval shape. Stick figures represent actors in the process, and the actor's participation in the system is modeled with a line between the actor and use case. To depict the system boundary, draw a box around the use case itself.

These diagrams are used at a very high level of design. This high level design is refined again and again to get a complete and practical picture of the system. A well-structured use case also describes the pre-condition, post condition, and exceptions. These extra elements are used to make test cases when performing the testing.

Although use case is not a good candidate for forward and reverse engineering, still they are used in a slightly different way to make forward and reverse engineering. The same is true for reverse engineering. Use case diagram is used differently to make it suitable for reverse engineering.

Use case diagrams can be used for −

- Requirement analysis and high level design.
- Model the context of a system.
- Reverse engineering.
- Forward engineering.
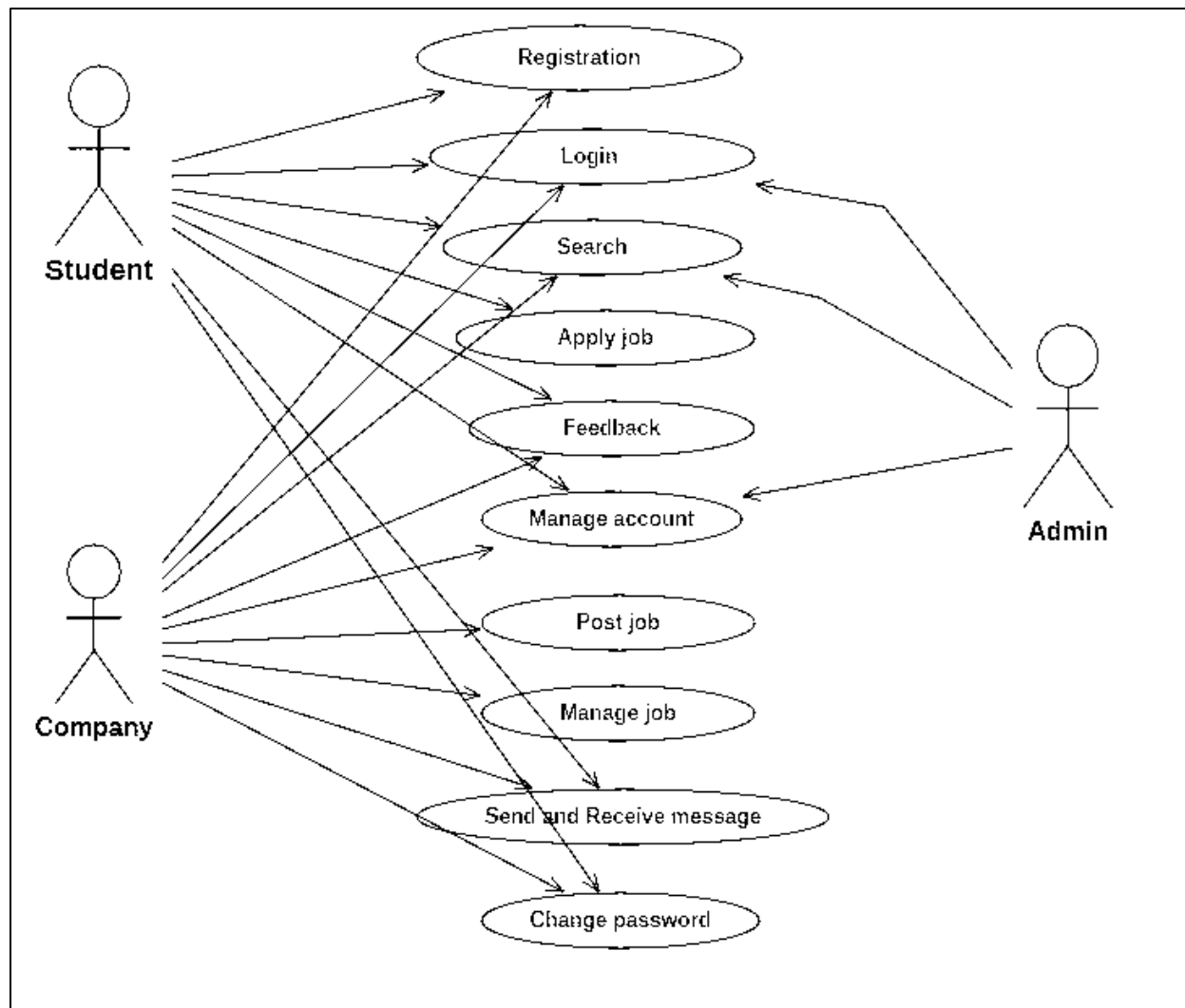
Use Case Diagram 1

4.4 Sequence Diagram

The sequence diagram represents the flow of messages in the system and is also termed as an event diagram. It helps in envisioning several dynamic scenarios. It portrays the communication between any two lifelines as a time-ordered sequence of events, such that these lifelines took part at the run time. In UML, the lifeline is represented by a vertical bar, whereas the message flow is represented by a vertical dotted line that extends across the bottom of the page. It incorporates the iterations as well as branching.

A sequence diagram is a type of interaction diagram because it describes how—and in what order—a group of objects works together. These diagrams are used by software developers and business professionals to understand requirements for a new system or to document an existing process. Sequence diagrams are sometimes known as event diagrams or event scenarios.

Sequence Diagram Notations –

- **Actors –** An actor in a UML diagram represents a type of role where it interacts with the system and its objects. It is important to note here that an actor is always outside the scope of the system we aim to model using the UML diagram.

- **Lifelines –** A lifeline is a named element which depicts an individual participant in a sequence diagram. So basically each instance in a sequence diagram is represented by a lifeline. Lifeline elements are located at the top in a sequence diagram.

- **Messages –** Communication between objects is depicted using messages. The messages appear in a sequential order on the lifeline. We represent messages using arrows. Lifelines and messages form the core of a sequence diagram

- **Guards –** To model conditions we use guards in UML. They are used when we need to restrict the flow of messages on the pretext of a condition being met. Guards play an important role in letting software developers know the constraints attached to a system or a particular process.

  Uses of sequence diagrams –

- Used to model and visualise the logic behind a sophisticated function, operation or procedure.

- They are also used to show details of UML use case diagrams.

- Used to understand the detailed functionality of current or future systems.

- Visualise how messages and tasks move between objects or components in a system.

Collaboration1::Interaction1::SequenceDiagram1

sd SequenceDiagram1

Job seeker	Employee Management	Employer	Admin

1 : Register

2 : Log in

3 : Log in

4 : Login

5 : Post job

7 : Search job

6 : Jobseeker detail

8 : Select candicate

9 : Display job

11 : Apply job

10 : Show employer detail
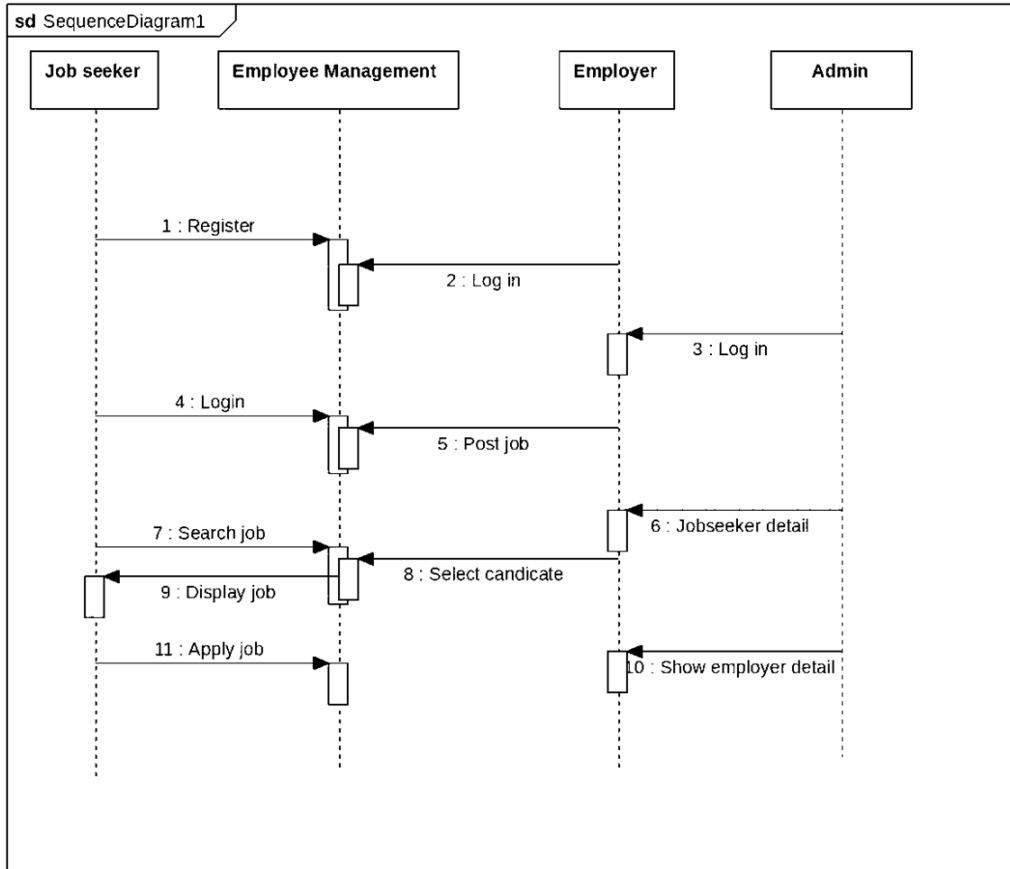
Sequence Diagram 1

4.5 Collaborative diagram

The collaboration diagram is used to show the relationship between the objects in a system. Both the sequence and the collaboration diagrams represent the same information but differently. Instead of showing the flow of messages, it depicts the architecture of the object residing in the system as it is based on object-oriented programming. An object consists of several features. Multiple objects present in the system are connected to each other. The collaboration diagram, which is also known as a communication diagram, is used to portray the object's architecture in the system.

A collaboration diagram, also known as a communication diagram, is an illustration of the relationships and interactions among software objects in the Unified Modeling Language (UML). These diagrams can be used to portray the dynamic behavior of a particular use case and define the role of each object.

Collaboration diagrams are created by first identifying the structural elements required to carry out the functionality of an interaction. A model is then built using the relationships between those elements. Several vendors offer software for creating and editing collaboration diagrams.

The four major components of a collaboration diagram are:

- **Objects-** Objects are shown as rectangles with naming labels inside. The naming label follows the convention of object name: class name. If an object has a property or state that specifically influences the collaboration, this should also be noted.

- **Actors-** Actors are instances that invoke the interaction in the diagram. Each actor has a name and a role, with one actor initiating the entire use case.

- **Links-** Links connect objects with actors and are depicted using a solid line between two elements. Each link is an instance where messages can be sent.

- **Messages-** Messages between objects are shown as a labeled arrow placed near a link. These messages are communications between objects that convey information about the activity and can include the sequence number.

evaluate credentials()
schedule interview()
select candidate()

apply for job()

Job Seeker

Job Recruiting Agency

recommend

Employer

assessment of candidate()
dispatch appointment letter()
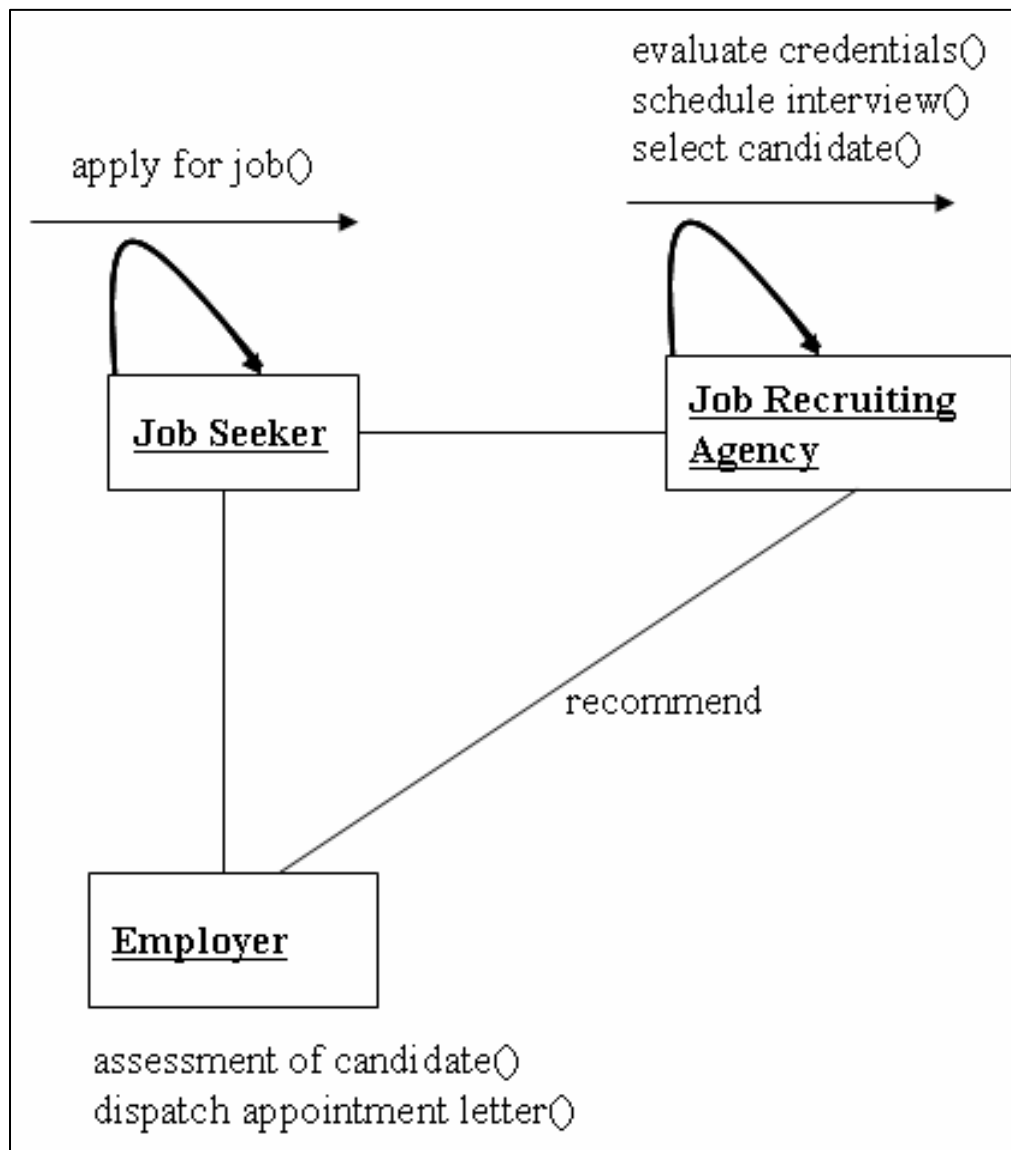
Collborative Diagram 1

30

CHAPTER 5

FORM DESIGN

5.1 Home Page
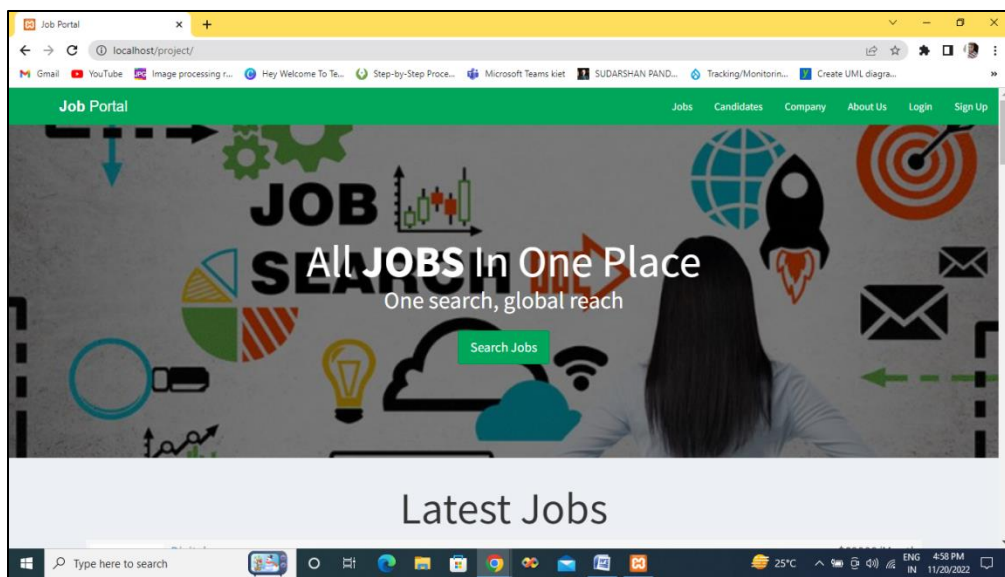
5.2 Job Search Page
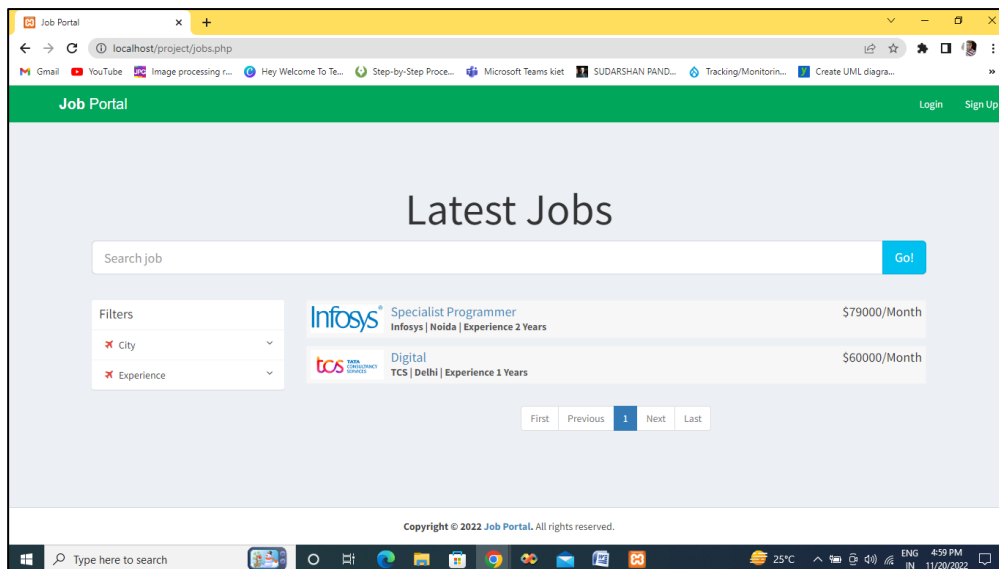
5.3 Candidate Work

5.4 Company Work

5.5 Candidate Profile

5.6 Company Profile

5.7 Candidate Registration Page

5.8 Company Registration Page

5.9 Login Page

5.10 About Us Page
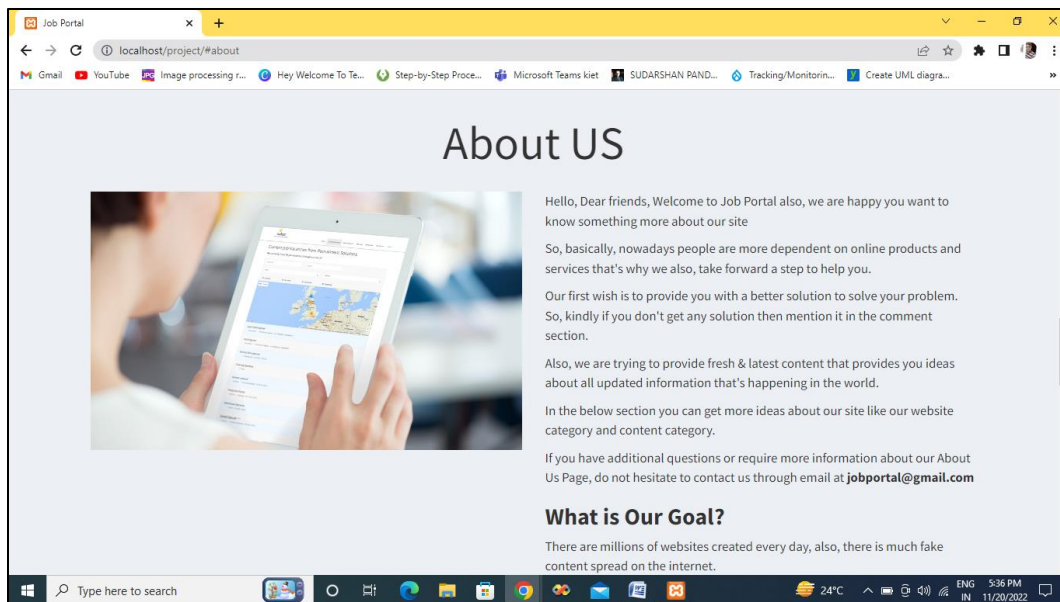
5.11 Candidate Dashboard
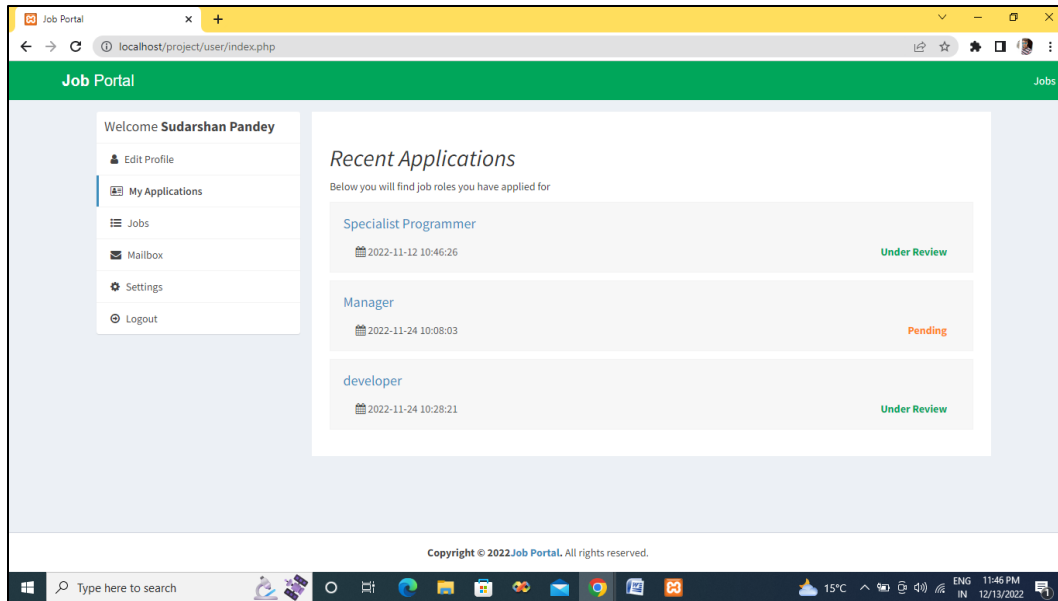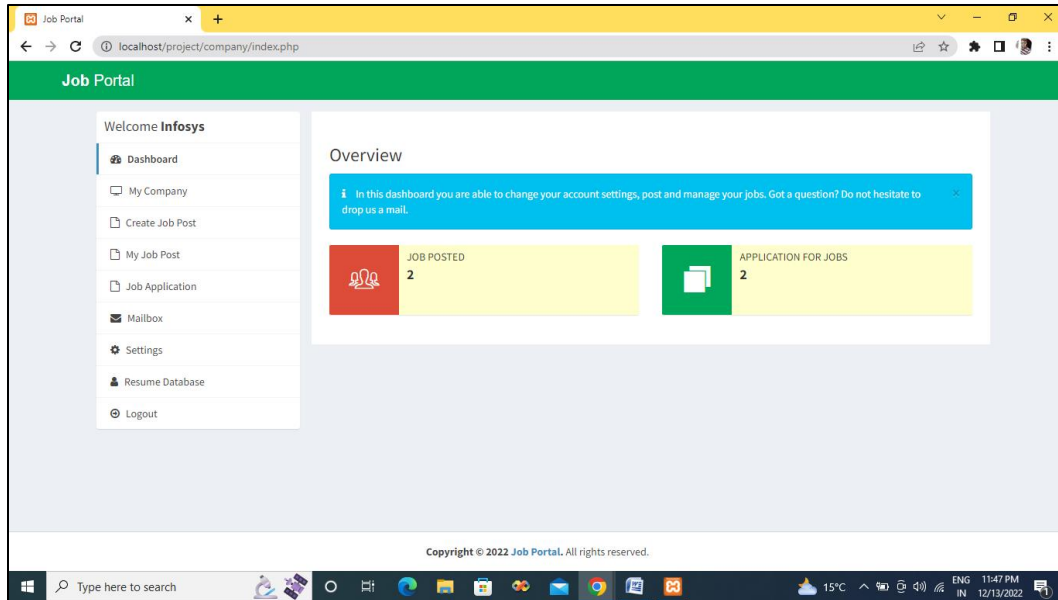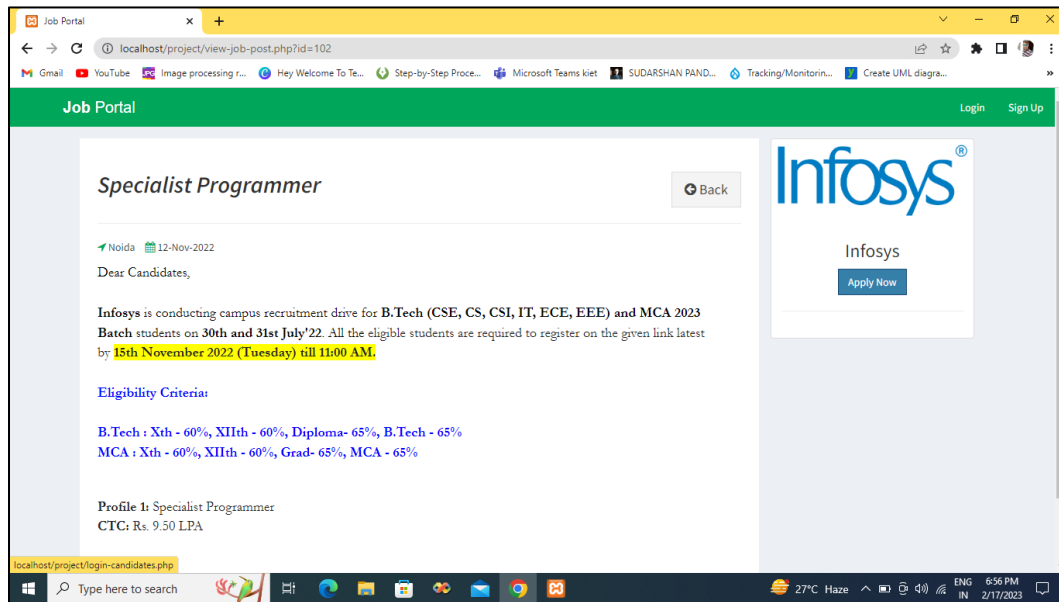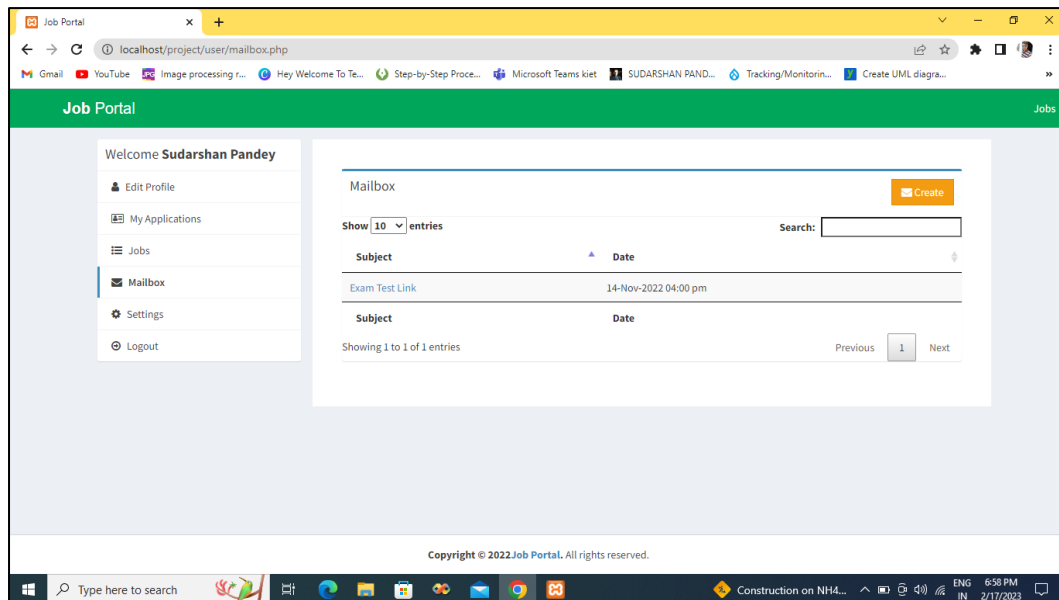

5.12 Company Dashboard

5.13 Job Post Page

5.14 Mailbox Page

CHAPTER 6

CODING

6.1 Login Page Coding

```php
<?php
session_start();
if(isset($_SESSION['id_user']) || isset($_SESSION['id_company'])) {
header("Location: index.php");
exit();
}
?>
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<title>Job Portal</title>
<!-- Tell the browser to be responsive to screen width -->
 <meta content="width=device-width, initial-scale=1, maximum-scale=1, user-scalable=no"
name="viewport">
 <!-- Bootstrap 3.3.7 -->
 <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/twitter-
bootstrap/3.3.7/css/bootstrap.min.css">
  <!-- Font Awesome -->
  <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-
awesome.min.css">
  <!-- Ionicons -->
  <link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/ionicons/2.0.1/css/ionicons.min.css">
  <!-- Theme style -->
  <link rel="stylesheet" href="css/AdminLTE.min.css">
  <!-- iCheck -->
  <link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/iCheck/1.0.2/skins/square/blue.css">
  <!-- HTML5 Shim and Respond.js IE8 support of HTML5 elements and media queries -->
  <!-- WARNING: Respond.js doesn't work if you view the page via file:// -->
  <!--[if lt IE 9]>
```

```
    <script src="https://oss.maxcdn.com/html5shiv/3.7.3/html5shiv.min.js"></script
```

6.2 Mailbox Code

```php
<?php
session_start();

if(empty($_SESSION['id_company'])) {
header("Location: ../index.php");
exit();
}
 require_once("../db.php");

if(isset($_POST)) {
$to  = $_POST['to'];
$subject = mysqli_real_escape_string($conn, $_POST['subject']);
$message = mysqli_real_escape_string($conn, $_POST['description']);
$sql = "INSERT INTO mailbox (id_fromuser, fromuser, id_touser, subject, message) VALUES
('$_SESSION[id_company]', 'company', '$to', '$subject', '$message')";
```

6.3 Database Connection Code

```php
<?php

//Your Mysql Config
$servername = "localhost";
$username = "root";
$password = " ";
$dbname = "job_portal";

//Create New Database Connection
$conn = new mysqli($servername, $username, $password, $dbname);

//Check Connection
if($conn->connect_error) }
```

CHAPTER 7

TESTING

Testing is a process of executing a program with the intent of finding bugs that makes the application fail to meet the expected behavior. System Analysis and Design process including Requirement Analysis, Business Solution Options, Feasibility Study, Architectural Design was discussed in previous chapter. Generally Software bugs will almost always exist in any software module. But it is not because of the carelessness or irresponsibility of programmer but because of the complexity. Humans have only limited ability to manage complexity. This chapter discusses about the testing of the solution and implementation methodologies. Regardless of the development methodology, the ultimate goal of testing is to make sure that what is created does what it is supposed to do. Testing plays a critical role for assuring quality and reliability of the software. I have included testing as a part of development process. The test cases should be designed with maximum possibilities of finding the errors or bugs. Software Testing is the process of executing a program or system with the intent of finding errors. The scope of software testing often includes examination of code as well as execution of that code in various environments and conditions. Software Testing is a method to check whether the actual software product matches expected requirements and to ensure that software product is Defect free. It involves execution of software/system components using manual or automated tools to evaluate one or more properties of interest. The purpose of software testing is to identify errors, gaps or missing requirements in contrast to actual requirements. Testing stage of the project can be explained as below and system was tested for all these stages. Various level of testing are as follows

7.1 Testing Levels

Unit testing: Unit testing tests the functionality of individual units of source code. It is the smallest component of a testable software that works in isolation with other parts of the code. I have done unit testing for various individual components of the source code to uncover errors within the boundary of the application.

Integration testing: Integration testing focuses on the design and construction of the software. Here the individual components that are tested using unit tests are combined and tested as a group. Its primary purpose is to expose the defects associated with the interfacing of modules. It checks if the modules perform the desired functionality when integrated together

System testing: System testing is performed on a completely integrated system to see if it meets the requirements, System Testing is a type of software testing that is performed on a complete integrated system to evaluate the compliance of the system with the corresponding requirements. In system testing, integration testing passed components are taken as input.

Regression testing: Regression testing aims at verifying the functionality of the software that is previously tested and to which changes are made. It is to ensure the old software still works with new changes.

Acceptance testing: Acceptance testing is conducted to verify if the system compliance the business requirements. Software Testing is a method to check whether the actual software product matches expected requirements and to ensure that software product is Defect free. It involves execution of software/system components using manual or automated tools to evaluate one or more properties of interest. The purpose of software testing is to identify errors, gaps or missing requirements in contrast to actual requirements.

Adhering to the levels of testing, Unit testing is performed on individual components of the system ensuring the expected behavior. Later, I have integrated various components together and performed Integration testing. Once the integration testing is done, I have performed System 30 testing and ensured the application works as per the requirements. Finally, acceptance testing is performed to check if the client accepts the system

Browser Testing : As this project has same web interface for both customer and Admin ,and Every different person uses different Browser so this Project Is Successfully Tested In Google Chrome | Edge | Firefox...etc

- All Its module are working properly and the project is best viewed both in Computer and in Mobile also.
- The main requirement for this project that you should have good internet connection.

Performance Testing : Performance testing is performed to determine how well the system can perform in terms of responsiveness under all kinds of load. The web application is tested to see if it can sustain huge amount of requests providing higher throughput under different loads. I have simulated multiple hits on various pages of the application to evaluate the overall performance.

7.2 Test Case

7.2.1 For User Registration

Field	Details
Id_user	1
firstname	Sudarshan
lastname	Pandey
email	sudarshanpandey@gmail.com
password	******
address	Jogi Nawada
city	Bareilly
state	Uttar Pradesh
Contact no	8279372340
qualification	MCA
stream	CS
passingyear	2023
dob	13/02/1999
age	23
designation	SE
resume	Resume.pdf
hash	JND@NKML
active	1
About me	hello
skill	C,C++

Record Entered Sucessfully

7.2.2 For Company Registration

Field	Type
Id_Company	11
Name	TCS
Company name	Tata Consultancy Services
Country	India
State	Uttar Pradesh
City	Noida
Contact no	8439126990
Website	www.tcs.com
Email	tcs@gmail.com
Password	******
About me	Hello
Logo	Logo.png
Active	1

Record Entered Successfully

7.2.3 Login Case

Field	Type
Email	sudarshanpandey@gmail.com
Password	******

Login Successfully

BIBLIOGRAPHY

[1] Introduction To PHP Retrieved on 10/10/2022from
https://www.tutorialspoint.com/php/index.htm