

**INDIRA GANDHI NATIONAL OPEN UNIVERSITY**

**MCSP - 060**

**TITLE OF THE PROJECT**

**“ ONLINE JOB SEEKER PORTAL ”**

**by**

**Saptarshi Dihidar  
Enrolment No:- 187130440**

**Under Guidance  
of  
Kausik Dash**

**Submitted to the School of Computer and Information Sciences,  
IGNOU  
in partial fulfillment of the requirements  
for the award of the degree  
Master of Computer Application (MCA)**



**Indira Gandhi National Open University  
Maidan Garhi  
New Delhi – 110068.**



**SCHOOL OF COMPUTER AND INFORMATION SCIENCES**  
IGNOU, MAIDAN GARHI, NEW DELHI – 110 068

**II. PROFORMA FOR THE APPROVAL OF MCA PROJECT PROPOSAL (MCSP-060)**

(Note: All entries of the proforma of approval should be filled up with appropriate and complete information.  
Incomplete proforma of approval in any respect will be summarily rejected.)

Project Proposal No : .....  
(for office use only)

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Regional Centre: Kolkata RC Code: 28  
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1. Name and Address of the Student

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Uttareyan Housing Estate, 102-B.T.Rd.,

Kolkata - 700108, West Bengal, India

Online Job Seeker Portal

2. Title of the Project

Name: Kaushik Dash, Address: Pradip Kumar

Paul 105/35 B, Seal Colony, Dum Dum Rd., Kolkata - 700074

4. Educational Qualification of the Guide  
(Attach bio-data also)

Ph.D\*  M.Tech.\*  B.E\*/B.Tech.\*  MCA  M.Sc.\*

(\*in Computer Science / IT only)

5. Working / Teaching experience of the Guide\*\* System Tester & Sr. Trainer, Software Developer,

Faculty for IEM (Institute of Engineering Management), Developed Freelancer Project

(\*\*Note: At any given point of time, a guide should not provide guidance for more than 5 MCA students of IGNOU)

6. Software used in the Project

Eclipse IDE, Visual Studio Code, Oracle 19c ,  
Java, HTML,CSS, Typescript

7. If already pursued BCA/BIT from IGNOU,

mention the title of the project (BCSP-064) and the s/w used Name: Jeevan Sangi.com., Software: Java ,

HTML,CSS ,

8. Project title of the Mini Project (MCS-044) and the s/w used Name: Iteman Resource Management

System, Software: Java,HTML, Javascript Oracle 11g

System, Software: Java,HTML, Javascript Oracle 11g

9. Is this your first submission?

Saptarshi Dihidar

Yes

No

Signature of the Student  
Date: 28/12/2023

Kaushik Dash  
Signature of the Guide  
Date: 18/12/2023

For Office Use Only

Approved

Not Approved

Signature, Designation, Stamp of  
the Project Proposal Evaluator  
Date:

Suggestions for reformulating the Project:

# **KAUSIK DASH**

**Address (Present) :** Pradip kumar Paul 105/35 B, Seal colony  
Dumdum Road , kolkata - 700074

 Cellular : 9231872342

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 [kausikdash@gmail.com](mailto:kausikdash@gmail.com)

## **Experience**

From 2003(3<sup>rd</sup> Sept) to 2006(30<sup>th</sup> Nov): At The International Travel House Ltd - a subsidiary of ITC Ltd.

**Designation** : System Tester & Sr. Trainer

**Job Profile** : Car Rental Software Maintenance, Database Maintenance (Oracle), Training of Staff to operate the package . Control of the total system connection, Backup Maintenance. etc.

From 2006(1<sup>st</sup> Dec)-2007(15<sup>Th</sup> Nov):At the NIVT (Salt lake ,BG-5 Sector -11,kol-91 )

**Designation** : Software Developer

From 2007(20<sup>Th</sup> Nov) to till now: Faculty job for IEM (Institute of Engineering Management, Salt lake Sector V, kol-91)And developed Freelancer project.

## **Academic Qualification**

- 1998 - Madhaymik from West Bengal Board for Secondary Education.
- 2000 - HS from West Bengal Council for Higher Secondary Education.
- 2003 - Bachelor of Science from the University of Calcutta.
- 2008 - MCA(Master Degree of Computer Application)Passed From IGNOU
- 2013 - M. Tech(CSE). Passed From WBUT

Contd.....p/2

### Computer Proficiency

- Operating System :- Dos, Windows98/2000/XP/2007/VISTA , Linux, Unix,
- Language : C, Data structure through C, Java ,VB, VB.Net, C#,
- Scripting Language : java Scripting , VB Scripting, HTML
- Database : Oracle, SQL Server, Access .
- Technologies : .NET technologies (ASP,ASP.Net[C#,VB.Net],JSP)
- Networking

### Other Qualification

- Passed Diploma in Desk Top Publishing course ( DOS , Window 2000 , Page Maker, Corel Draw, Photo soft, 3D Max, etc.) From Kolkata Youth Center, Sealdah in the year 2003.

### Project Work

#### 1. Live Project

- Project Name : Freelancer.com
- Using Software
  - i. Front end language ASP.Net (C#)
  - ii. Back end database SQL SERVER 2000

➤ **Name of the Project:** - Stockiest Information Management

**Client:** - Roche Diagnostics India, Mumbai

**Duration-** 6 month (Approx)

**Technology Used-** VB.net, (Asp.net,C# web part) ,MS SQL Server, Ms Analysis

Services, MS excel

➤ **Name of the Project:** Tourism

**Website:** - www.travelsystems.in

**Client--** Travel System

**Duration:** 4 Month

**Technology Used-** VB6.0, Farpoint Spread 6(for office), ASP, SQL Server (website)

Contd.....p/3

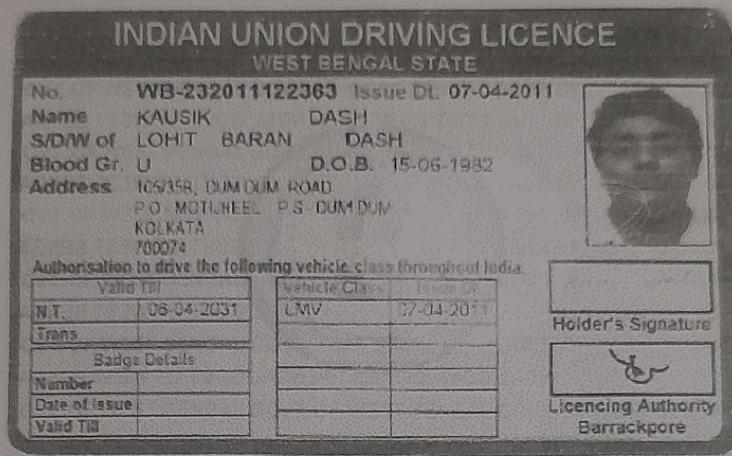
:: 3 ::

**Personal Details**

Date of Birth : 15<sup>th</sup> June , 1982  
Marital Status : Married  
Nationality : Indian  
Hobbies : Playing football, Reading story books, Listening to music  
Traveling , Internet surfing, Teaching.

DATE : 18/12/2023

Kaumik Dash.  
SIGNATURE



Kausik Dash  
18/12/2023

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TITLE OF THE PROJECT

# ONLINE JOB SEEKER PORTAL

# INTRODUCTION AND OBJECTIVES

## Introduction

In the age of information technology the arrival of computers and especially the grand invention which has connected people around the world with as ease as it may ever be namely the internet , the need for the individuals to approach the respective and appropriate employers is at its peak. Not to mention the authenticity of the said employer as well as that of the applicant is also to be taken into account as nowadays the need for security has also taken up an interest amongst all the people.

This project , “Online Job Seeker Portal” , is intended to tackle the problem of making sure that the jobseekers are connected to the most suitable employers based on their needs and the skill set of the former.

The project will enable the applicant to submit information regarding his/her background , education , talents , achievements , etc. This is to ensure that the proper and required inspire is provided about the applicant to the interested employers. Hence the employer will be able to properly assess whether the respective applicant is up to the mark.

A most common form of presenting an individual’s bio-data is in the form of a CV ( Curriculum Vitae) . Hence there will also be a functionality for the applicant to submit his/her CV by uploading a file in the format of a pdf or docx file. Apart from this the individual will also be able to provide data regarding the needed educational qualifications , job experience, general information and, other talents and achievements.

Similarly the employer who is searching for applicants who can be hired can too use the portal to achieve his/her goals . The employer may be an individual or an organization and similar amenities will be provided for the cause. The employer will be able to post job details and job requirements which the applicant will have to fulfill. The applicants will be capable of applying to the position and sending his/her CV to the employer for further evaluation.

This will enable both the job seeker and the employer to come into contact and interact with each other and providing the skill set and job experience and the job requirements respectively.

## Objectives

- ❖ The “Online Job Seeker Portal” project will assist in bridging the gap of communication between the job seeker and the employer.
- ❖ The job applicant will be able to upload his/her resume/CV(curriculum vitae) . This can be done multiple times , each time the previous one will be replace by the new one.
- ❖ The job applicant will be able to search for job posts by different employers and apply to them or mark them as favorites.
- ❖ The job applicant will be provided by a profile section where he/she will be able to present the necessary information regarding the skill set and job experience.
- ❖ The job applicant will be able to communicate with the employer through a lightweight chat application.
- ❖ The employer will be able to post job requirements and job seekers will be able to apply to the respective position. The former will be able to see a list of all the applicants who have applied to this post.
- ❖ The employer should also be able to search for job seekers who have signed up for the online portal and who meet the requirements of the employer and send messages to those individuals for further communication.
- ❖ The employer should be able to post multiple jobs and the job applicants should be filtered based on the specific job posts.
- ❖ The employer should be able to schedule meetings for interviews with the job seekers the former is interested in.

## PROJECT CATEGORY

### Category

The “**Online Job Seeker Portal**” is being developed with a web based approach with **RDBMS** support.

### Advantages

A web based approach will allow the system to be globally accessed by any user, who is using the internet. A web approach allows the user to perform the various transactions on their own without the help of any company representatives.

- ◆ Safe mode of communication
- ◆ Economically feasible
- ◆ Easily accessible from anywhere
- ◆ Resource sharing is possible

This project can also be considered as a **RDBMS** based project. The main objective of this project is to hold data as permanent storage. For this it needs a database approach. But since the system has to manipulate complicated data links and dependencies thus an **RDBMS** approach needs to be taken.

- ◆ Reduces data redundancy
- ◆ Increases data stability
- ◆ Data security is enhanced
- ◆ Usability of 4GL like SQL

## TOOLS/PLATFORM, HARDWARE AND SOFTWARE REQUIREMENT SPECIFICATION

- ❖ Hardware Configuration (Minimum Requirements)
  - ◆ Processor - Intel i3 7<sup>th</sup> Generation
  - ◆ Motherboard Gigabyte with DDR4 Ram support
  - ◆ 8GB Ram or Higher
  - ◆ Hard Disk 256 GB
  - ◆ Intel Inbuilt HD Graphics
  - ◆ LAN card/Modem/Router
- ❖ Software Configuration
  - ◆ OS , Linux, **Ubuntu 20.04 LTS**
  - ◆ Web Browser , **Brave Browser** , Chromium Based Browser
  - ◆ Backend , Server side development IDE , **Eclipse**
  - ◆ Frontend Development IDE , **Visual Studio Code**
  - ◆ Database , **Oracle 19c**
  - ◆ **WPS Office** For word document creation

# PROBLEM DEFINITION, REQUIREMENT SPECIFICATION

## ❖ Problem Definition

A process in which two types of user namely job seekers and employers will be able to register themselves into the website and apply for jobs and posts required jobs respectively. The job seeker and employer should be able to communicate with each other through the means of an inbuilt chat feature. The employer will be able to post jobs and the requirements for it. On the other hand the job seeker will be able to search all the jobs available and filter them with respect to the job types and requirements for it. The job seeker should be able to apply for it and the same should be reflected on the employer's side. The employer can pick the job applicant on whom the former has interest in recruiting.

## ❖ Requirement Specification

### Introduction

#### Purpose

The purpose of the software is to bridge the gap between the employer and the job applicant by providing a common platform where both can post jobs and apply for the same respectively. The employee and the employer should be able to contact each other by the details provided in the profile section of the respective job seeker and vice versa.

## Scope

Scope of this software deals with the personalization and profiling of the candidates which can be looked into by the employers. Uploading of CVs and other necessary certification files whatsoever may be . Authentication and verification of both the employer and job seeker to ensure security and authenticity of the individuals/organizations.

## Benefits & Goals

- ◆ Advertising the jobs that have been posted by the employer so that the recruitment process for the respective employer may take place faster
- ◆ Browsing the profiles of the job seekers registered on the website by the employers and same for the
- ◆ Communication between the employers and the job seeker through an inbuilt chat facility
- ◆ Search functionality for both the jobseeker and the employer to filter out suitable job posts and candidates respectively
- ◆ Uploading of CVs so that it may be visible to the employers on demand
- ◆ To be able to apply for a job posted by the employer by the candidate and to be able to contact the later by the employer

## User Side

- ◆ Profile Section to see the current status of the information's uploaded by the candidate.
- ◆ Section where the jobseeker will be able to get a view of all the jobs that have been applied to and the list of the jobs marked as favorites.
- ◆ Search functionality so that the candidate may be able to look for jobs suitable for him/her or even all the job posts by employers.
- ◆ Resume Upload Functionality , for uploading the resume which will be available to the employers to view.
- ◆ To be able to apply for the job posted by the employers.
- ◆ A chat section where the job seeker will be able to communicate with the employer he/she is interested in .

## Employer Section

- ◆ Profile Section where the information uploaded by the employer will be presented. This section will also be visible to the jobseekers while they are browsing the different employers whom they might want to contact.
- ◆ Search functionality so that the employer may be able to look for different candidates for possible recruiting.
- ◆ Section for browsing through the job posts made by the employer.
- ◆ To be able to make a job post and provide the necessary requirements for the job.
- ◆ A chat section where the employer can chat with the jobseekers and also for contacting them.
- ◆ A section where the employer will be able to get a list of all the candidates who have applied to the job posted. by the former.
- ◆ To be able to shortlist candidates for recruiting , the ones who have applied for the post.

## Admin Side

- ◆ To be able to view , add , edit and delete recruiter.
- ◆ To be able to view , add , edit and delete jobseeker.
- ◆ To be able to search for a jobseeker or an employer.
- ◆ To be able to add/remove job category.
- ◆ Dashboard for viewing the summary of the total number of jobseekers and employers and, how many have applied for jobs along with related information.

## Registration Process Overview

The employer and jobseeker will have to sign up for the site by providing the basic information about themselves . The sign up pages will be different for the employer and jobseeker . Both will have to upload valid documents for authenticity of their identities . Job seekers will have the opportunity for uploading their resumes . They can achieve the purpose of the above by filling in their academic qualifications and job experience in different input sections which will be visible to the employers.

## Resume Uploading And Skill Updating

The jobseeker's main goal to make his/her probable employers know of the skill set and job experience the former is to offer. Similarly the employers would also like to properly inform the candidate for the type of requirements that is being looked for. The jobseeker should have an opportunity to upload his/her CV in docx or pdf format. The same should be accessible to the employer.

## Browsing For Jobs And Candidates Overview

The main crux of the project is to assist the jobseeker to know of open positions in an organization to which the individual can apply to. Vice-versa for the employer as they should be easily find candidates who possess the knowledge , skill set and job experience the former is looking for. Both should be able to filter out the required information amongst the large number of available search results.

## Candidate Recruiter Communication Overview

An important part of the process of the interaction of the candidate and the employer/recruiter is the communication they have to confirm whether each other is comfortable with each other or not. This is done as a final confirmation step before the actual interview or joining the job . Hence both should be able to communicate with each other through an inbuilt chat feature , thereby successfully negotiating the terms and other amenities of the employment.

## Product Functioning

Functioning's of the web product are as follows :-

- ◆ Allow jobseeker to register into the website and be provided with an username and password for logging in.
- ◆ Allow user to upload their CVs and employer information which should be visible to both parties.
- ◆ Provide communication facilities between the employer and the candidate.
- ◆ Maintain a database which can be used to keep track of all the records.
- ◆ Increase the level of security to prevent unauthorized access.

- ◆ Develop a system which will allow the users to the product to post job advertisements for recruitment of employee and for the application to the same by the jobseeker.
- ◆ Develop a system where the users will be able to see a brief overview of the jobs that they have applied to or posted (whichever is applicable)

### Users Of The Project

The users of the project are basically the people who are categorized as:-

- ◆ Fresher's who have completed their education and are looking for a job.
- ◆ Working professionals who want to shift to a new work place for better facilities.
- ◆ Professionals who want to advertise their services to viable employers.
- ◆ Freelancers who would like to seek clients for providing their services to
- ◆ People looking for part time work.
- ◆ Organization which are in-need of workers to help them in their day to day activities.
- ◆ Individuals who are looking for freelancer to assist them in any task required to be done.
- ◆ Companies which are looking for recruiting new employee.

# PROJECT PLANNING AND SCHEDULING

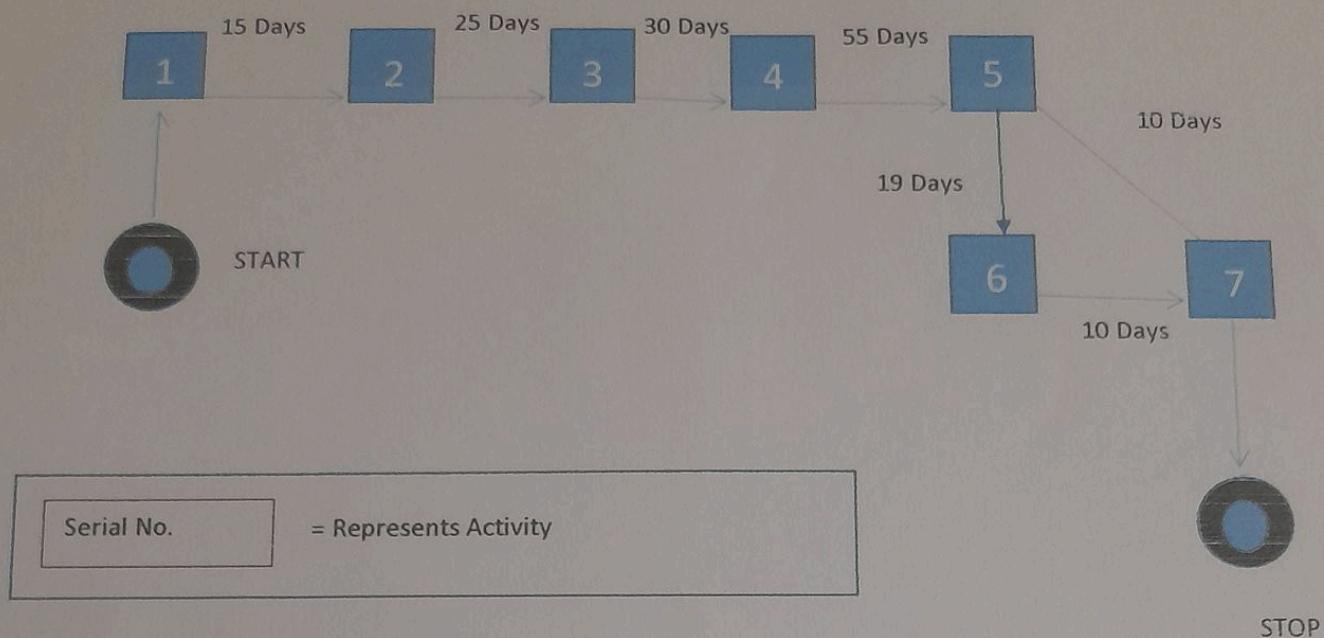
## Planning

The software project plan is produced at the culmination of the planning tasks. It provided the baseline cost and scheduling information that will be used throughout the software engineering process. The software project plan is a relatively brief document that is addressed to a diverse audience. It must:

- ◆ Communicate scope and reduces to software management, technical staff and the customer.
- ◆ Define tasks and suggest risk management techniques.
- ◆ Define cost and schedule for management review.
- ◆ Provide an overall approach to software development for all people associated with the project.
- ◆ Outline how quality will be assured and change will be managed.

## Pert Chart

A **Project Evaluation And Review Technique** chart is a project management tool used to schedule, organize, and coordinate tasks within a project. PERT enables calculation of critical path. PERT charts depict task, duration and dependency information. Each chart starts with any initiation node from which the first task, or tasks originates. If multiple tasks begin at the same time, they are all started from the node or branch, or fork out from the starting point. Each task is represented by a line. The other end of the task line is terminated by another node, which identifies the start of another task.

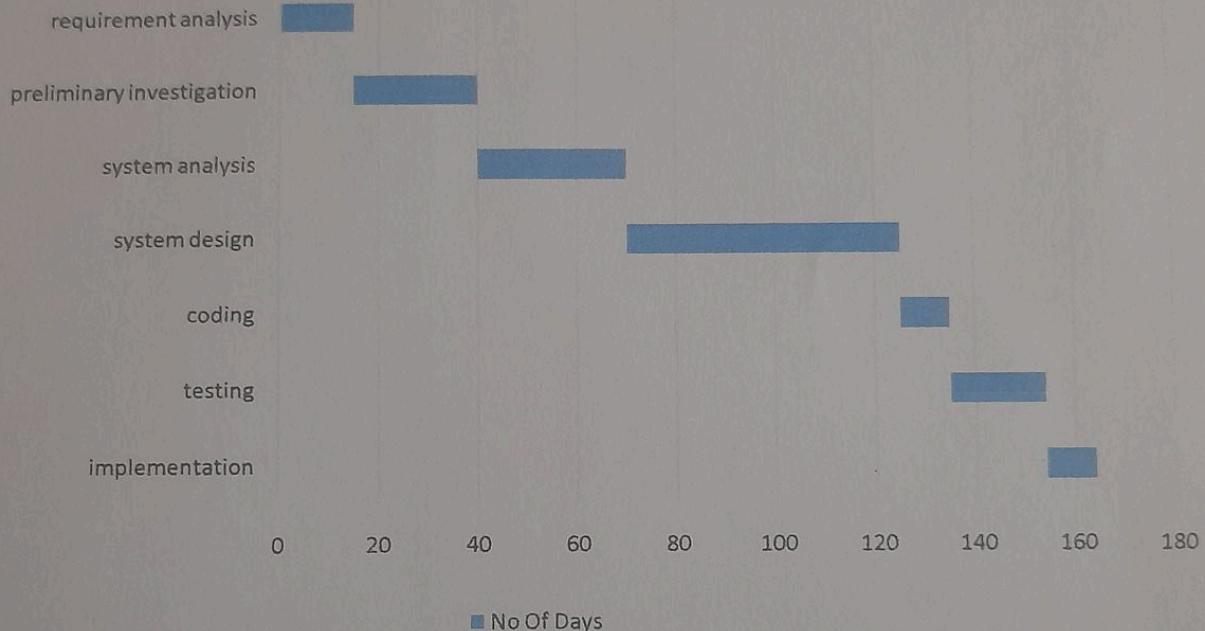


### Activities With Activity Number

Sl.No	Activity Name
1.	Requirement Analysis
2.	Preliminary Investigation & Feasibility Study
3.	System Analysis
4.	System Design
5.	Coding
6.	Testing
7.	Documentation

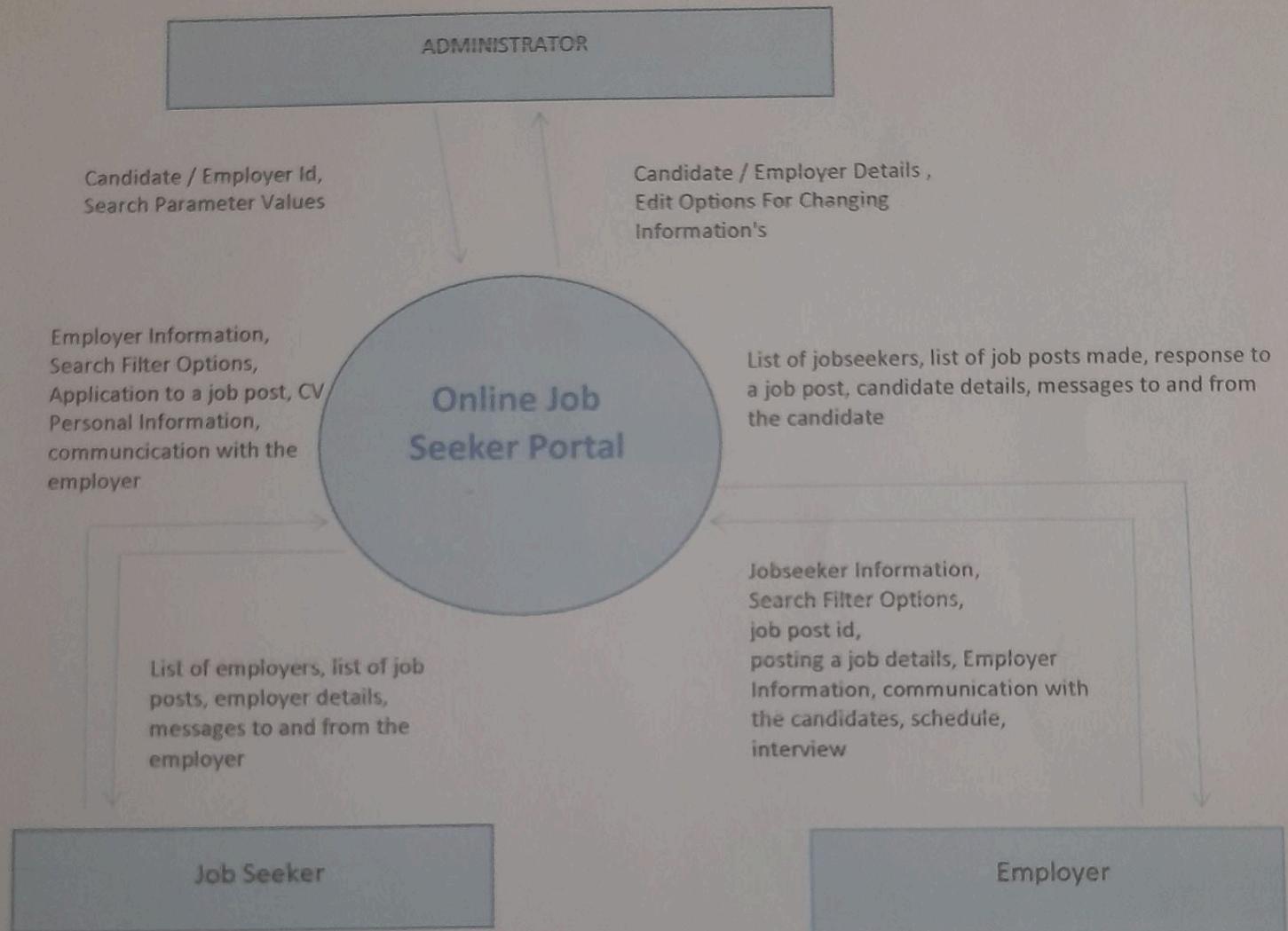
## Gantt Chart

Task Name	start date	end date	duration
requirement analysis	02-04-2023	16-04-2023	15
preliminary investigation	17-04-2023	10-05-2023	25
system analysis	11-05-2023	10-06-2023	30
system design	11-06-2023	03-08-2023	55
coding	04-08-2023	13-08-2023	10
testing	14-08-2023	01-09-2023	19
implementation	02-09-2023	11-09-2023	10

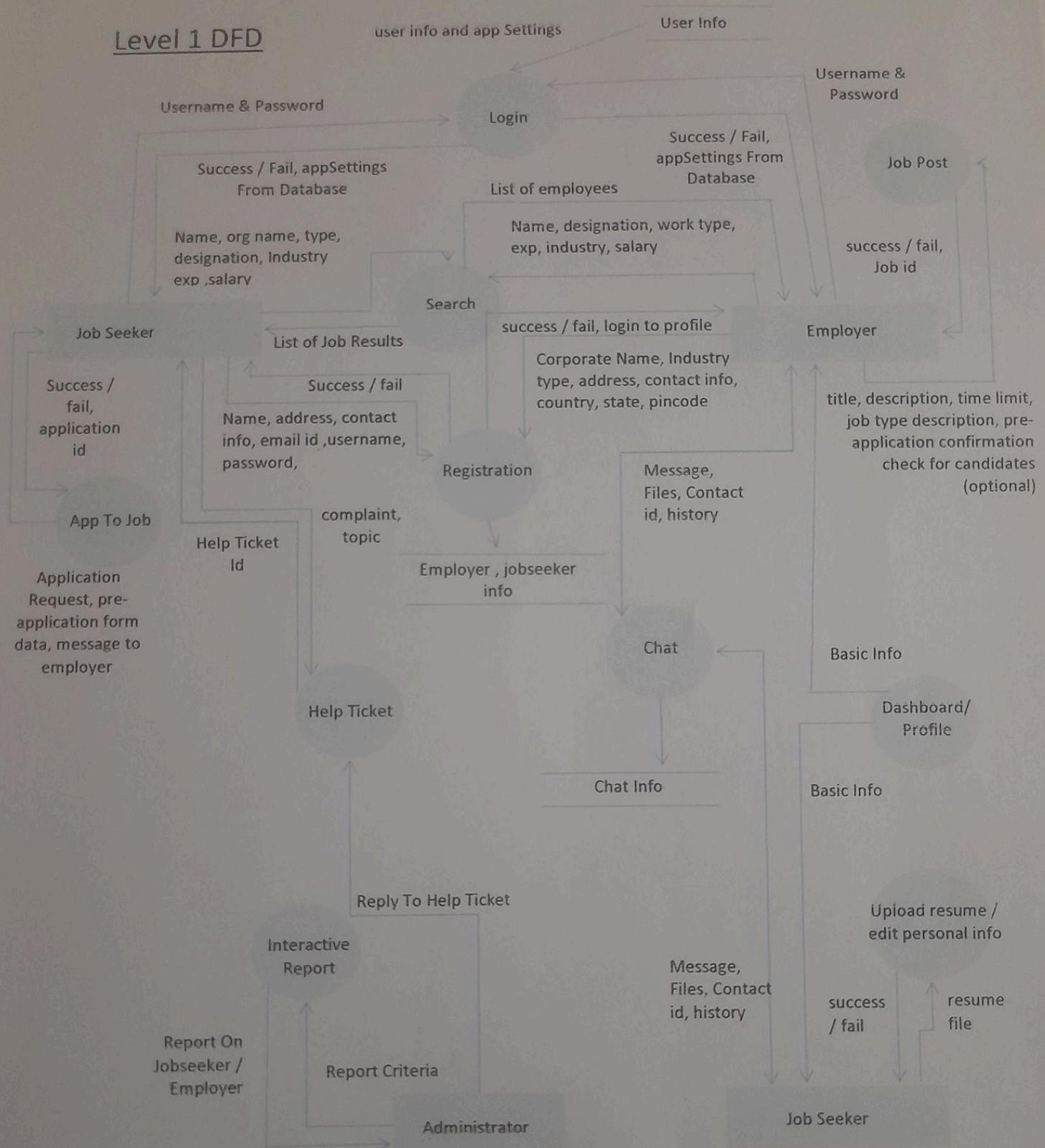


# ANALYSIS

## Context Level Data Flow Diagram (Level 0 DFD)



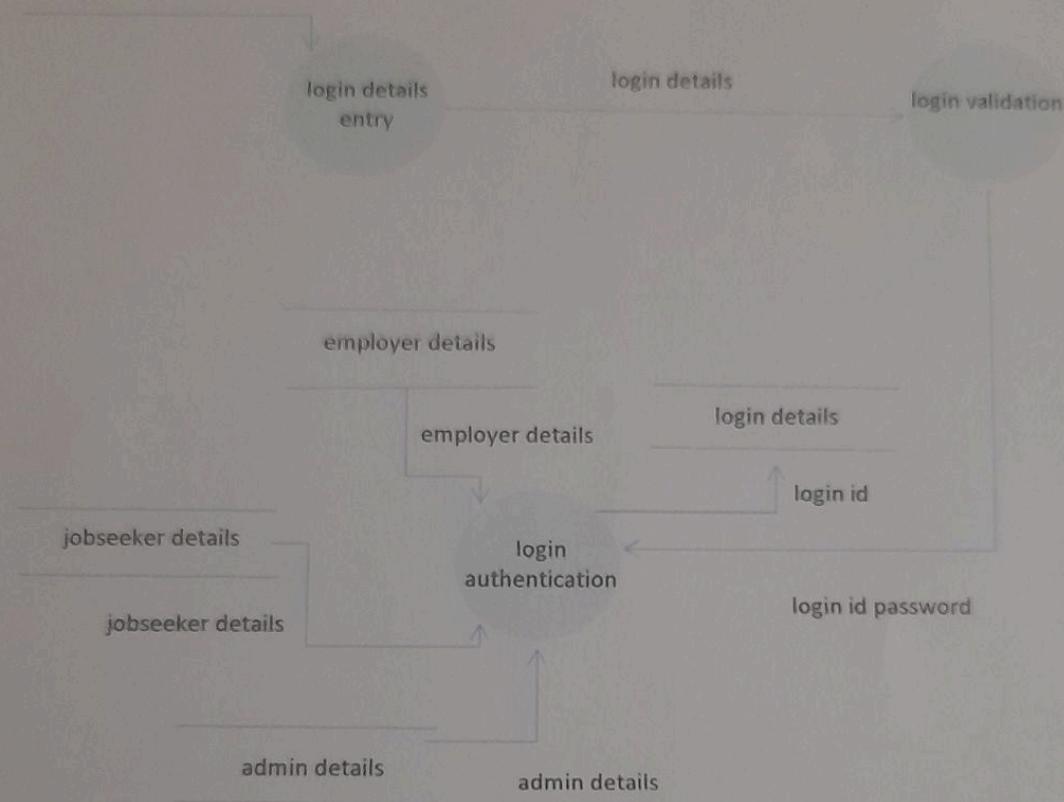
## Level 1 DFD



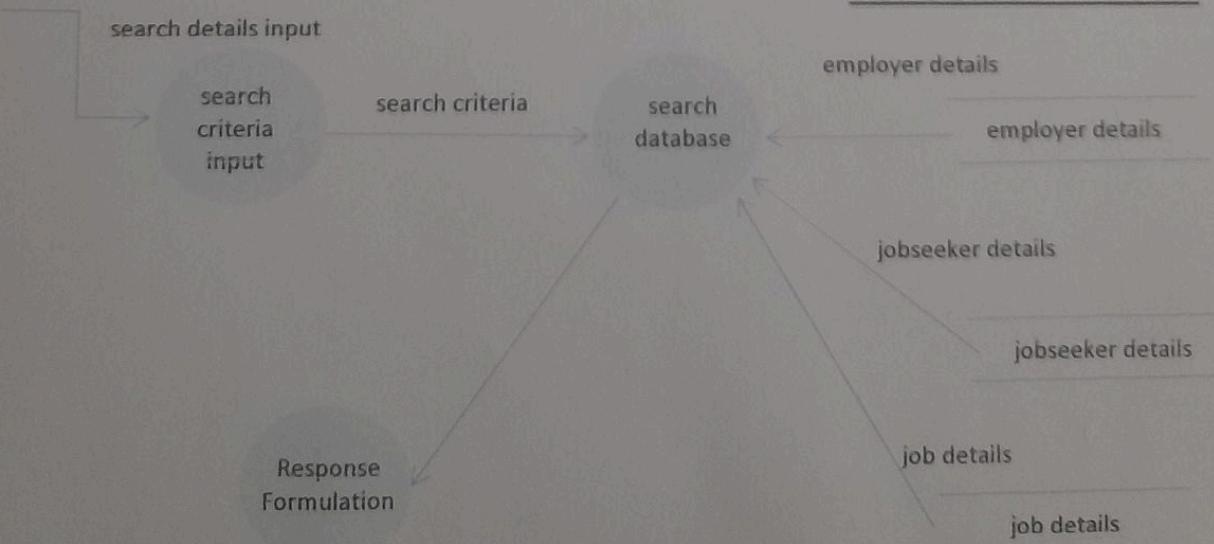
login id, password

## Level 2 D

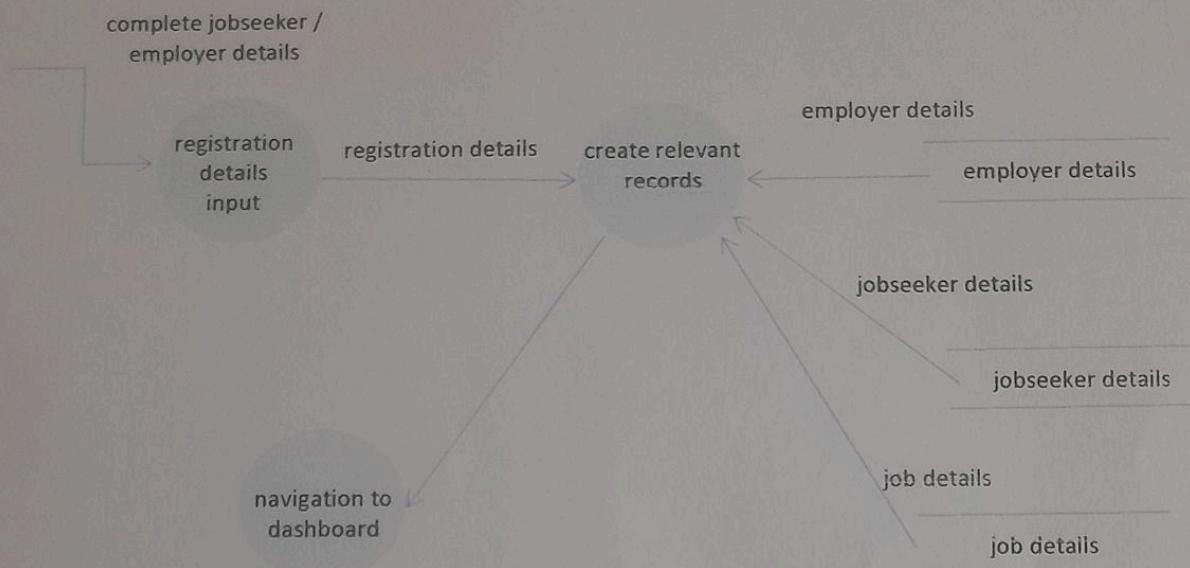
### For Login Process



### For Search Process

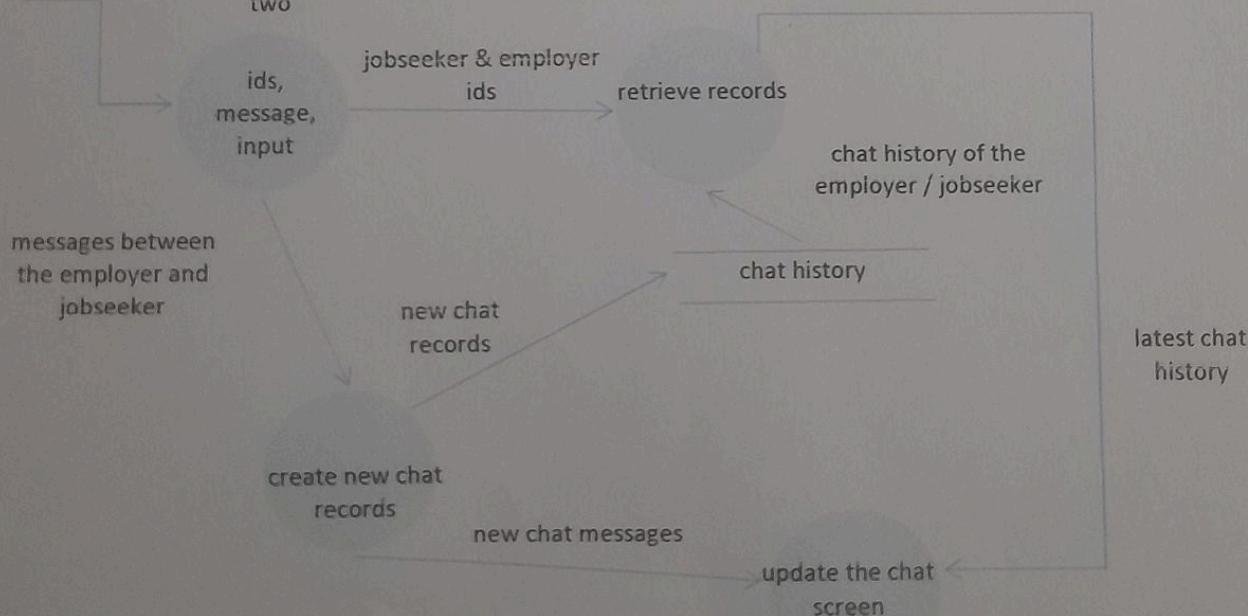


## For Registration Process

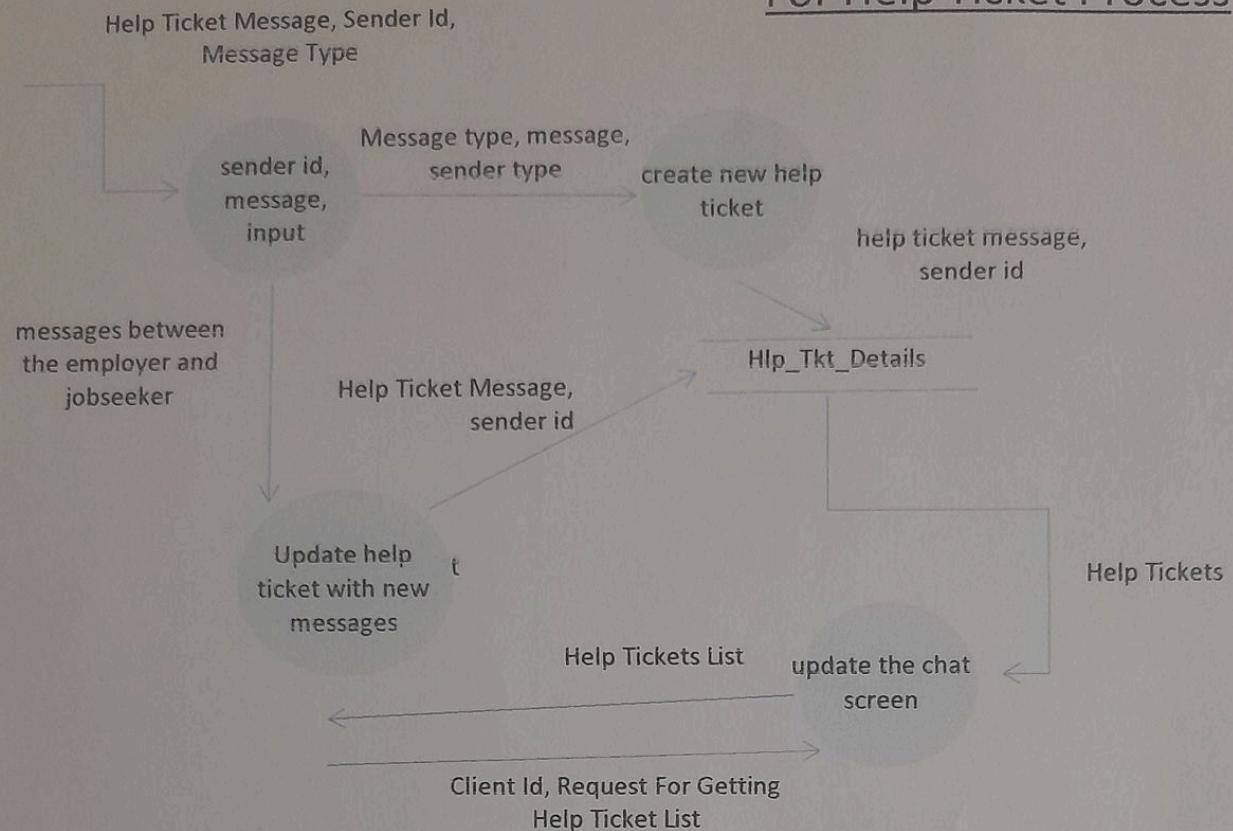


ids of both the communicating parties, messages between the two

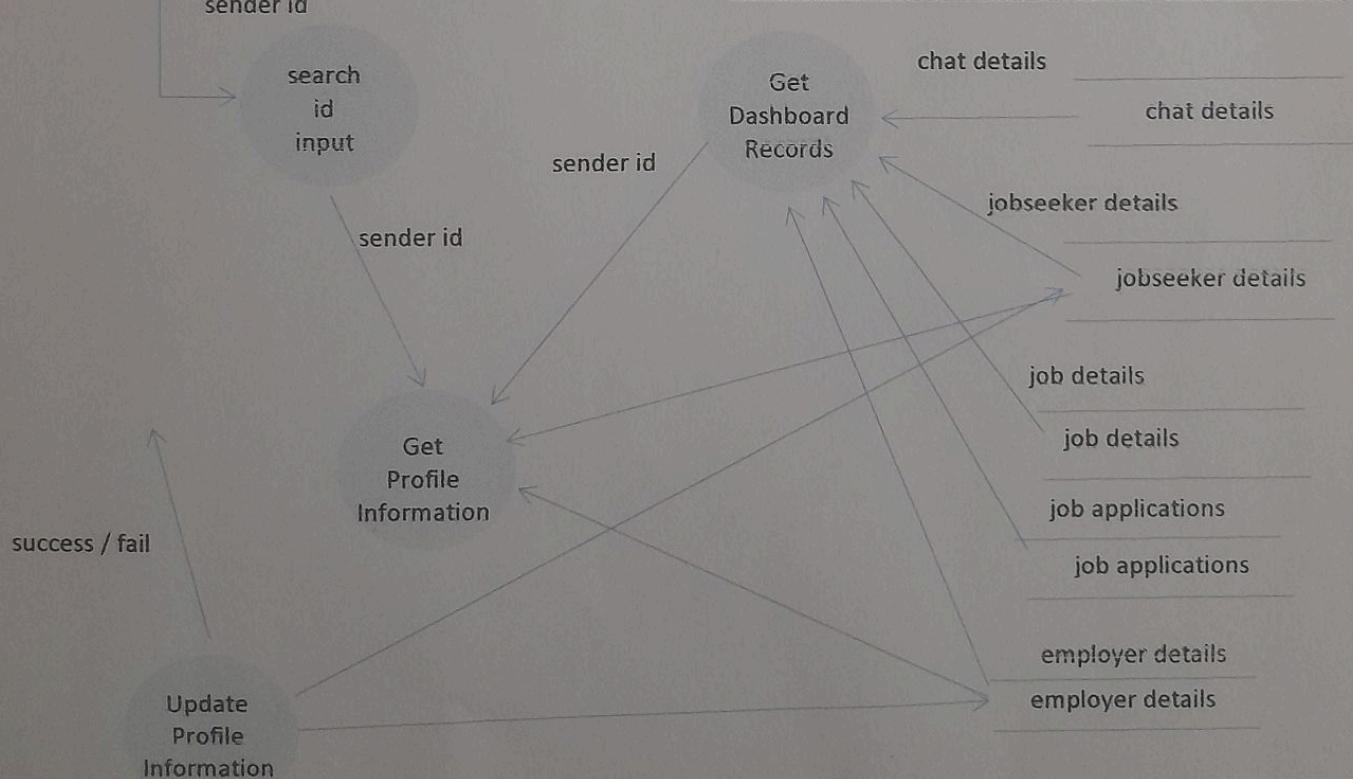
## For Chat Process



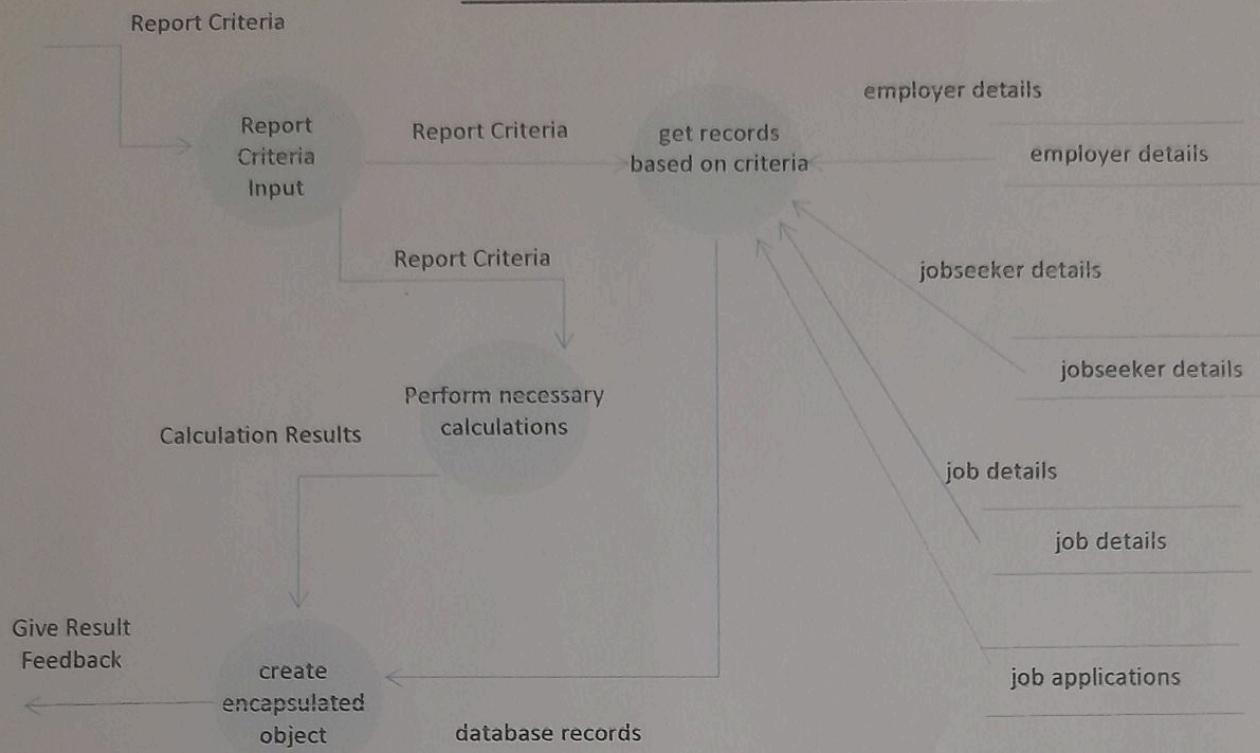
## For Help Ticket Process



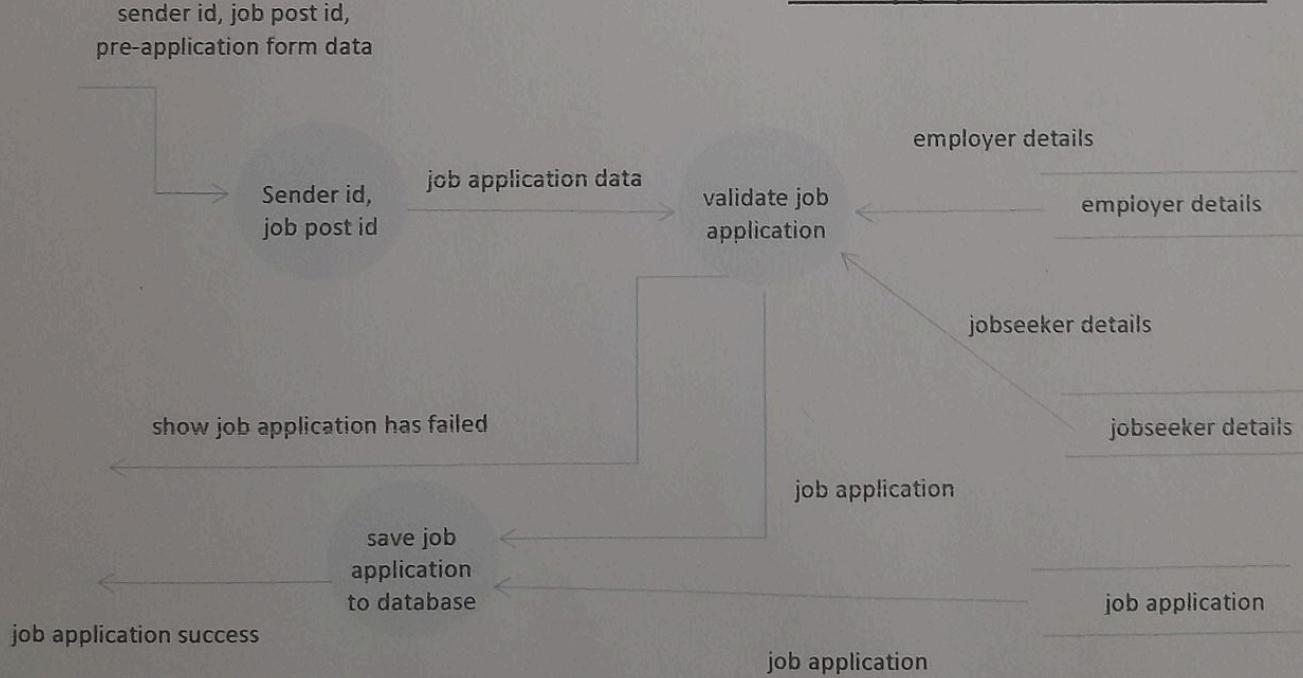
## For Dashboard/Profile Process



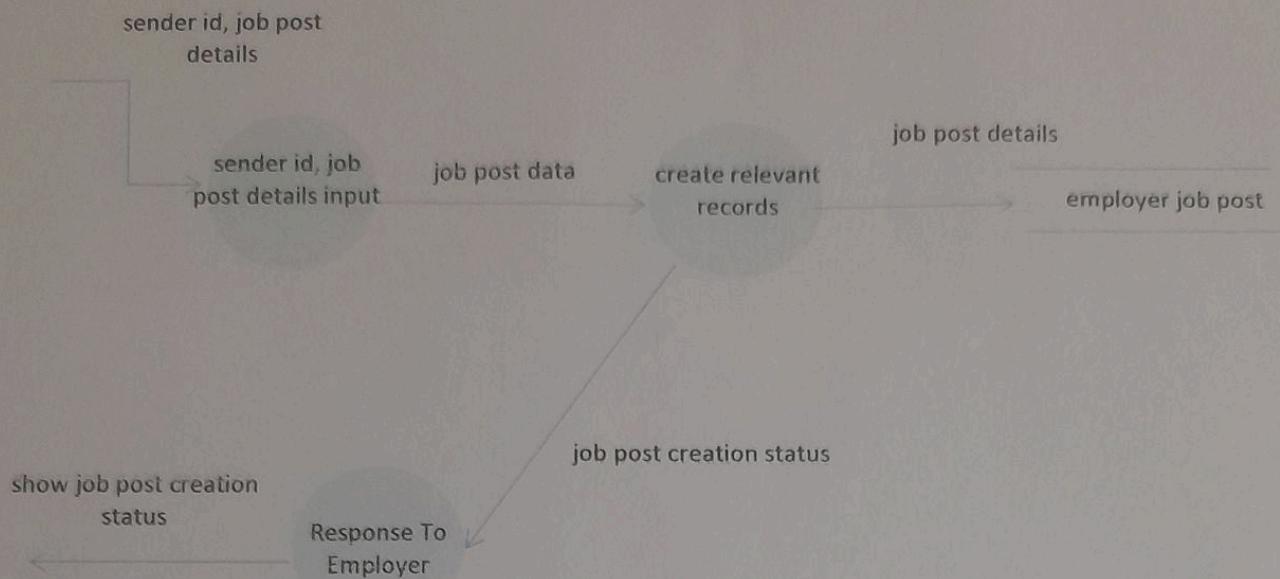
## For Interactive Reports Process



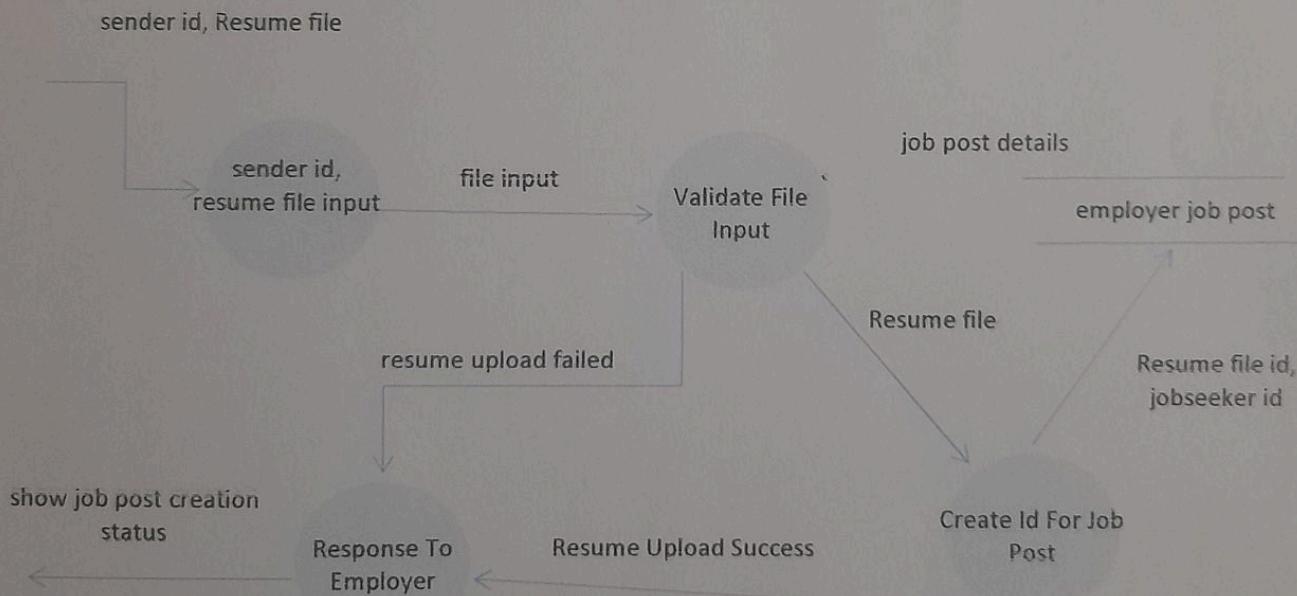
## For Apply To Job Process



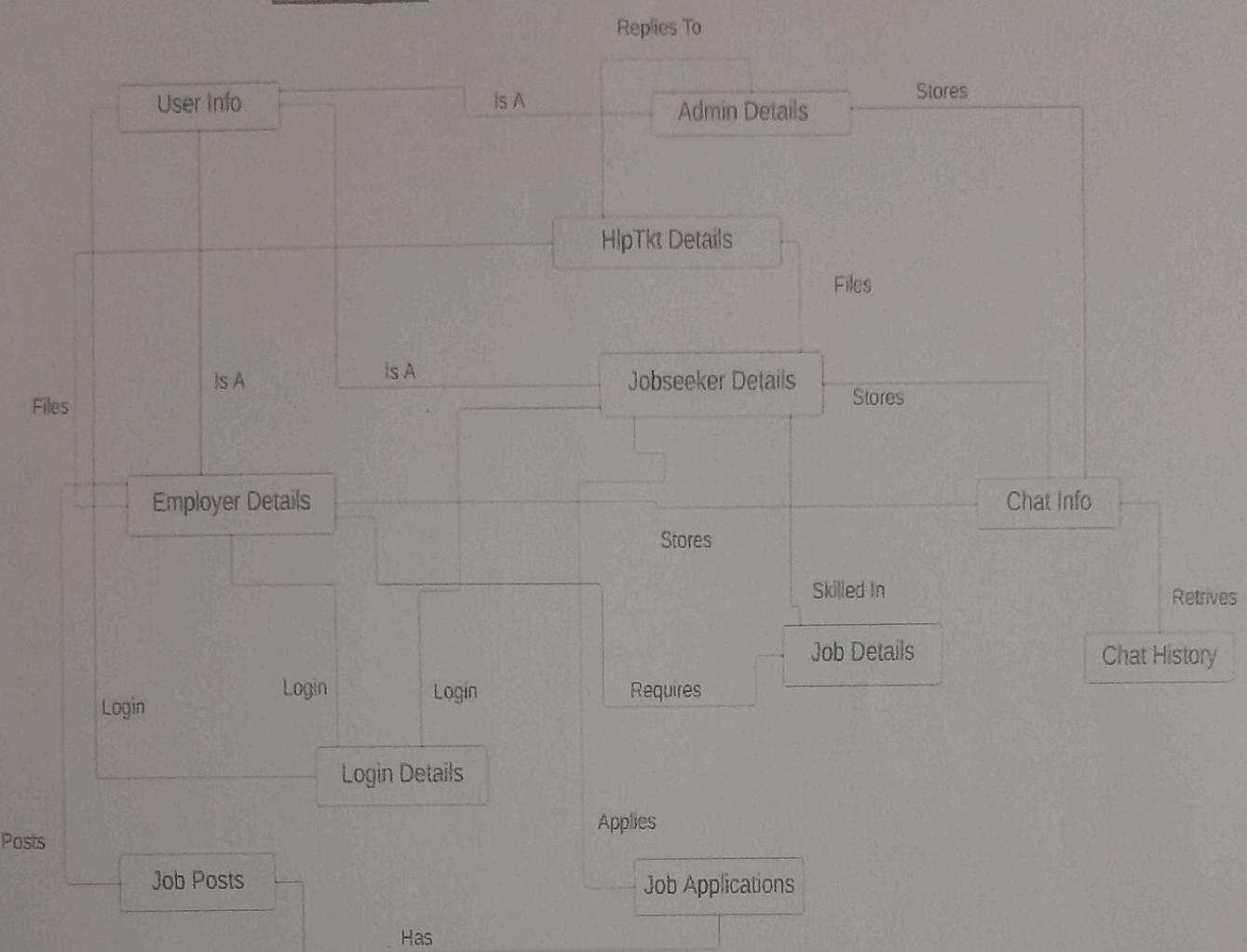
## For Job Post Process



## For Resume Upload Process



## ER Diagram



## TABLE SCHEMA

LoginDetails={login\_id,user\_id,log\_dat,log\_time,status}

UserInfo ={user\_id, user\_name, password, address, ph\_no, email\_id, user\_type, user\_status}

AdminDetails={admin\_id, user\_id}

EmployerDetails={employer\_id,user\_id}

JobseekerDetails={jobseeker\_id,user\_id}

HlpTktDetails={hlpTkt\_id,message,topic,user\_id,rply\_admin\_id,rply\_message}

ChatInfo=(chat\_id,jobseeker\_id,employer\_id)

ChatHistory={chatHistory\_id,message,message\_dat,message\_time,chat\_id,user\_id}

JobDetails={jobDet\_id,jobDet\_name,jobDet\_descr,jobDet\_type}

UserJobDetails={jobDet\_id,jobseeker\_id}

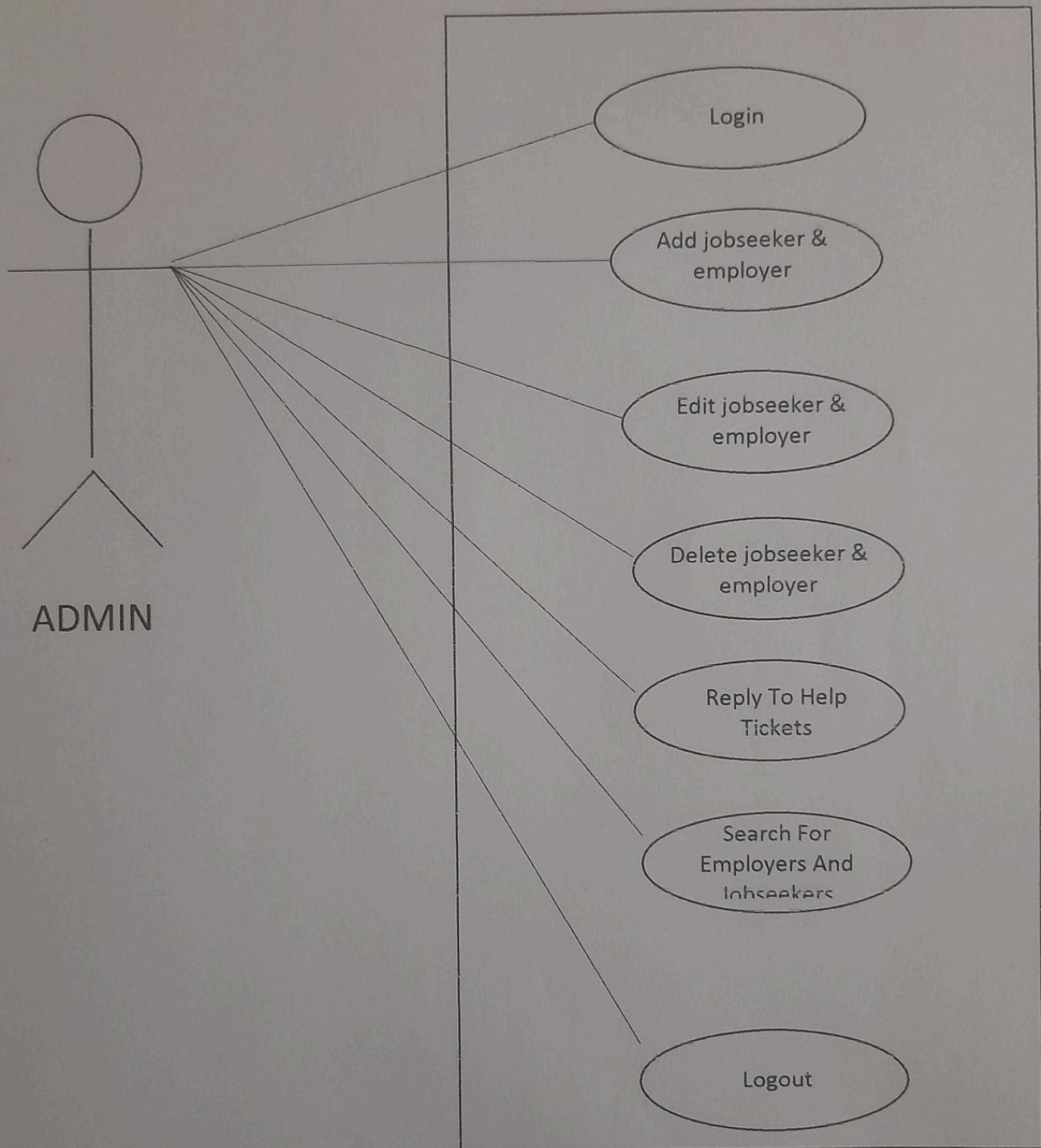
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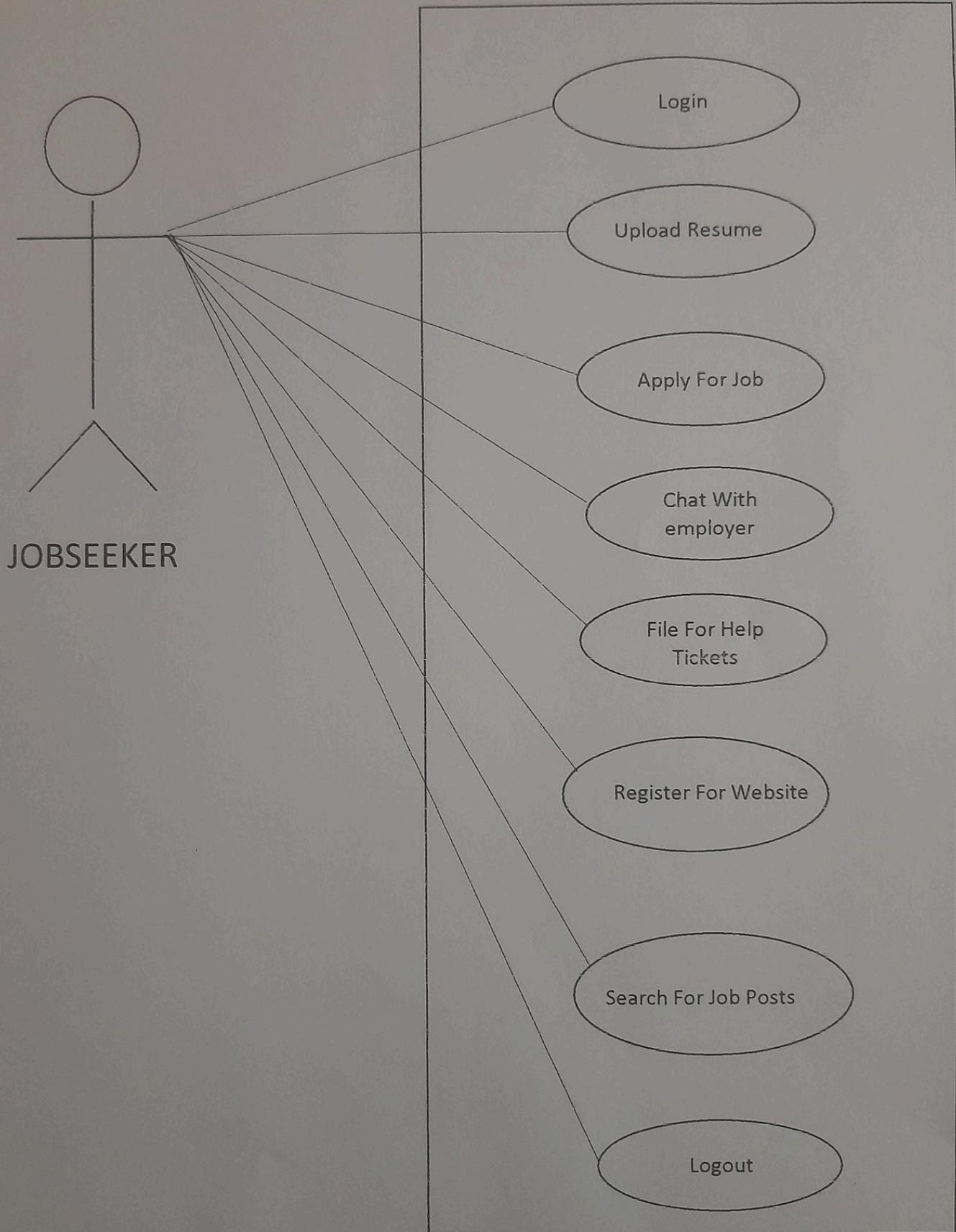
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PreApplicationData={preApp\_id,preApp\_data}

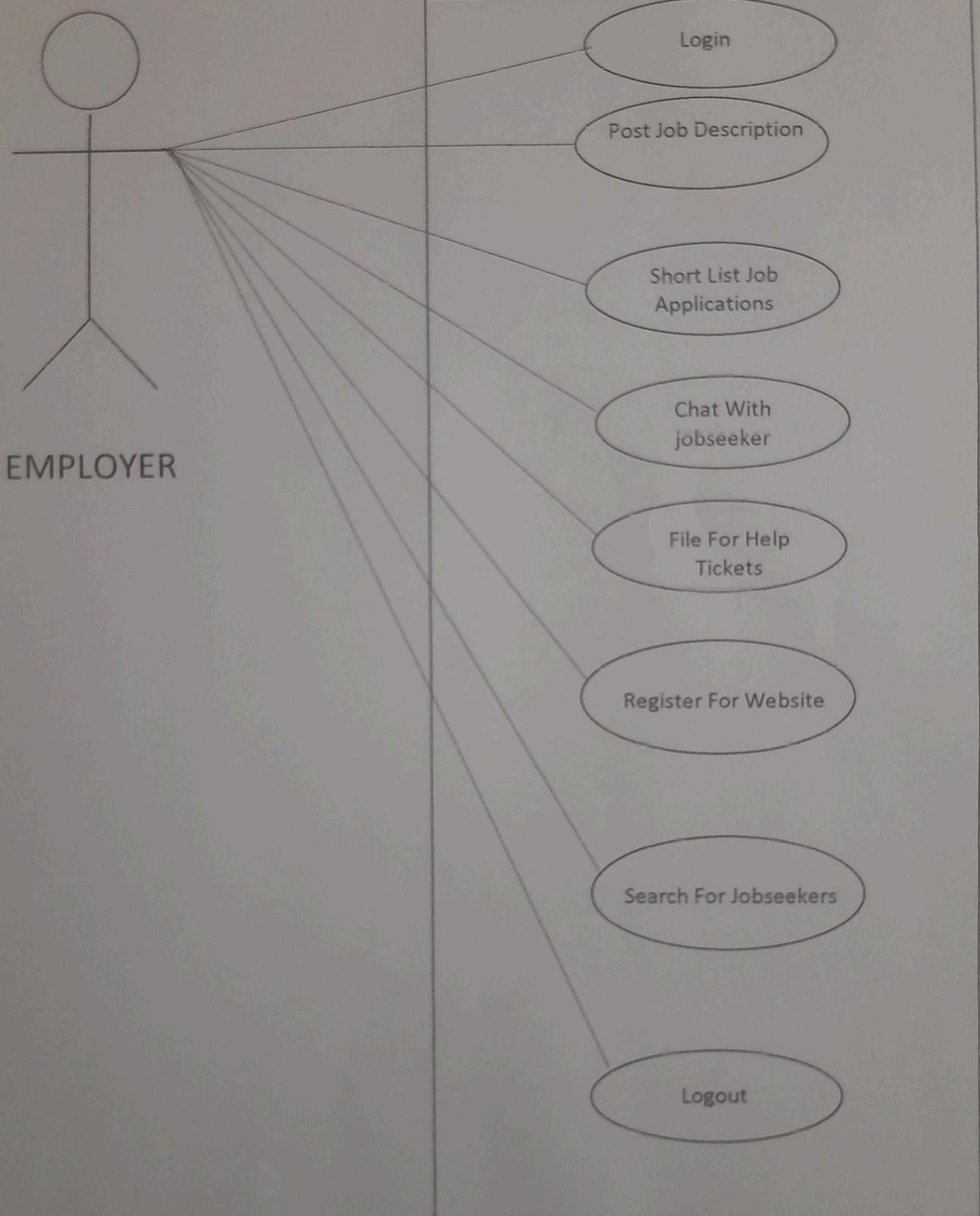
## USE-CASE DIAGRAM FOR ADMIN



## USE-CASE DIAGRAM FOR JOBSEEKER



## USE-CASE DIAGRAM FOR EMPLOYER



# COMPLETE STRUCTURE OF THE PROJECT

## Module Description Of The Project

### ◆ Login Procedure

Here admin, jobseeker and employer can login him/herself with valid id and password which is provided by themselves at the time of registration. If that id & password are valid then the valid site user will get a scope a bid, purchase otherwise not.

### ◆ Registration Procedure

Here jobseeker and employer can register himself with proper details. The site users have to provide an username and password, if valid then the valid site user will get a scope to post jobs for recruitment and apply to the same by the jobseekers. There is also a functionality for the jobseeker to upload his/her resume file which can be accessed by the employer for further scrutinization.

### ◆ Application To Jobs

Here the jobseeker can search for the job posts and apply to them as per his/her needs. The jobseeker can also look at the job description for much more details. The application to the job can be such that before proceeding he/she may have to fill a pre-application form.

### ◆ Posting Jobs For Recruitment

Here the employer can post the job based on which the recruitment is to be done. A pre-application form can also be added by the employer so as to get more data regarding the applicants. A time limit is to be given to notify as to how long the process for recruitment is to go on.

## ◆ Communication between the employer and the jobseeker

Here the jobseeker and employer can communicate with each other through a chat functionality which will be provided in the web application. With this facility both the parties will be able to discuss and negotiate the terms of the hiring.

## ◆ Filing Help Ticket

Here the jobseeker and employer can reach out to the administrators of the website and for any enquiry or problem they are facing by sending a message. This creates a help ticket and the user can keep track of the help tickets that were filed in the past and also the ongoing ones.

## ◆ Dashboard/Profile

Here the jobseeker and employer are given a brief outlook as to what the current state of the profile is. The user is shown the status of the job posts that have been made or the ones which have been applied to. The job applications made to specific job post are also shown here. The messages sent to the user or the ones sent to others is also shown in the dashboard/profile section. From here the user can edit any personal info like date of birth , address or job description.

## DATA STRUCTURE:

### 1. Login\_Details

Column Name	Data Type	Constraints	Description
login_id	varchar(20)	primary key	unique login id
user_id	varchar(20)	foreign key ref UserInfo , (user_id)	unique user id
log_dat	integer	not null	login date
log_time	integer	not null	login time
status	varchar(10)	not null	login status , is logged in or not

### 2. UserInfo

Column Name	Data Type	Constraints	Description
user_id	varchar(20)	primary key	unique user id
user_name	integer	not null	user name
password	integer	not null	password for login
address	varchar(256)		address of the user
ph_no	integer		contact no of the user
email_id	varchar(128)		email of the user
user_type	varchar(10)	not null	admin or jobseeker or employer
user_status	varchar(10)	not null	is user deactivated or not

### 3. AdminDetails

Column Name	Data Type	Constraints	Description
admin_id	varchar(20)	primary key	unique admin id
user_id	varchar(20)	foreign key ref UserInfo , (user_id)	unique user id

#### 4. EmployerDetails

Column Name	Data Type	Constraints	Description
employer_id	varchar(20)	primary key	unique employer id
user_id	varchar(20)	foreign key ref UserInfo , (user_id)	unique user id

#### 5. JobSeekerDetails

Column Name	Data Type	Constraints	Description
jobseeker_id	varchar(20)	primary key	unique jobseeker id
user_id	varchar(20)	foreign key ref UserInfo , (user_id)	unique user id

#### 6. HlpTktDetails

Column Name	Data Type	Constraints	Description
hlpTkt_id	varchar(20)	primary key	unique help ticket id
message	varchar(256)	not null	help ticket message sent from one to another
topic	varchar(128)	not null	topic of the help ticket
user_id	varchar(20)	foreign key ref UserInfo , (user_id)	unique user id, should be either jobseeker or employer
rply_admin_id	varchar(20)	foreign key ref AdminDetails , (admin_id)	unique admin id
rply_message	varchar(10)	not null	login status , is logged in or not

## 7. ChatInfo

Column Name	Data Type	Constraints	Description
chat_id	varchar(20)	primary key	unique chat id
jobseeker_id	varchar(20)	foreign key ref JobSeekerDetails, (jobseeker_id)	unique jobseeker id
employer_id	varchar(20)	foreign key ref EmployerDetails, (employer_id)	unique employer id

## 8. ChatHistory

Column Name	Data Type	Constraints	Description
chatHistory_id	varchar(20)	primary key	unique chat history id
message	varchar(20)	not null	message sent to the other party
message_dat	varchar(20)	not null	message sent date
message_time	number	not null	message sent time
chat_id	varchar(20)	foreign key ref ChatInfo , (chat_id)	unique chat id
user_id	varchar(20)	foreign key ref UserInfo , (user_id)	unique user id

## 9. JobDetails

Column Name	Data Type	Constraints	Description
jobDet_id	varchar(20)	primary key	unique job detail id
jobDet_name	varchar(20)	not null	job detail name
jobDet_descr	varchar(256)	not null	job detail description
jobDet_type	varchar(20)	not null	job detail type

## 10. UserJobDetails

Column Name	Data Type	Constraints	Description
jobDet_id	varchar(20)	foreign key ref JobDetails , (jobDet_id)	unique job detail id
jobseeker_id	varchar(20)	foreign key ref JobSeekerDetails , (jobseeker_id)	unique job details id

## 11. JobPosts

Column Name	Data Type	Constraints	Description
jobPost_id	varchar(20)	primary key	unique job post id
employer_id	varchar(20)	foreign key ref EmployerDetails , (employer_id)	job detail name
topic	varchar(256)	not null	job post topic
description	varchar(20)	not null	job post description
jobPost_dat	integer	not null	job post date
jobPost_time	integer	not null	job post time

## 12. JobPostJobDetail

Column Name	Data Type	Constraints	Description
jobPost_id	varchar(20)	foreign key ref JobPost, (jobPost_id)	unique job post id
jobDet_id	varchar(20)	foreign key ref JobDetails, (jobDet_id)	unique job details id

## 13. JobApplication

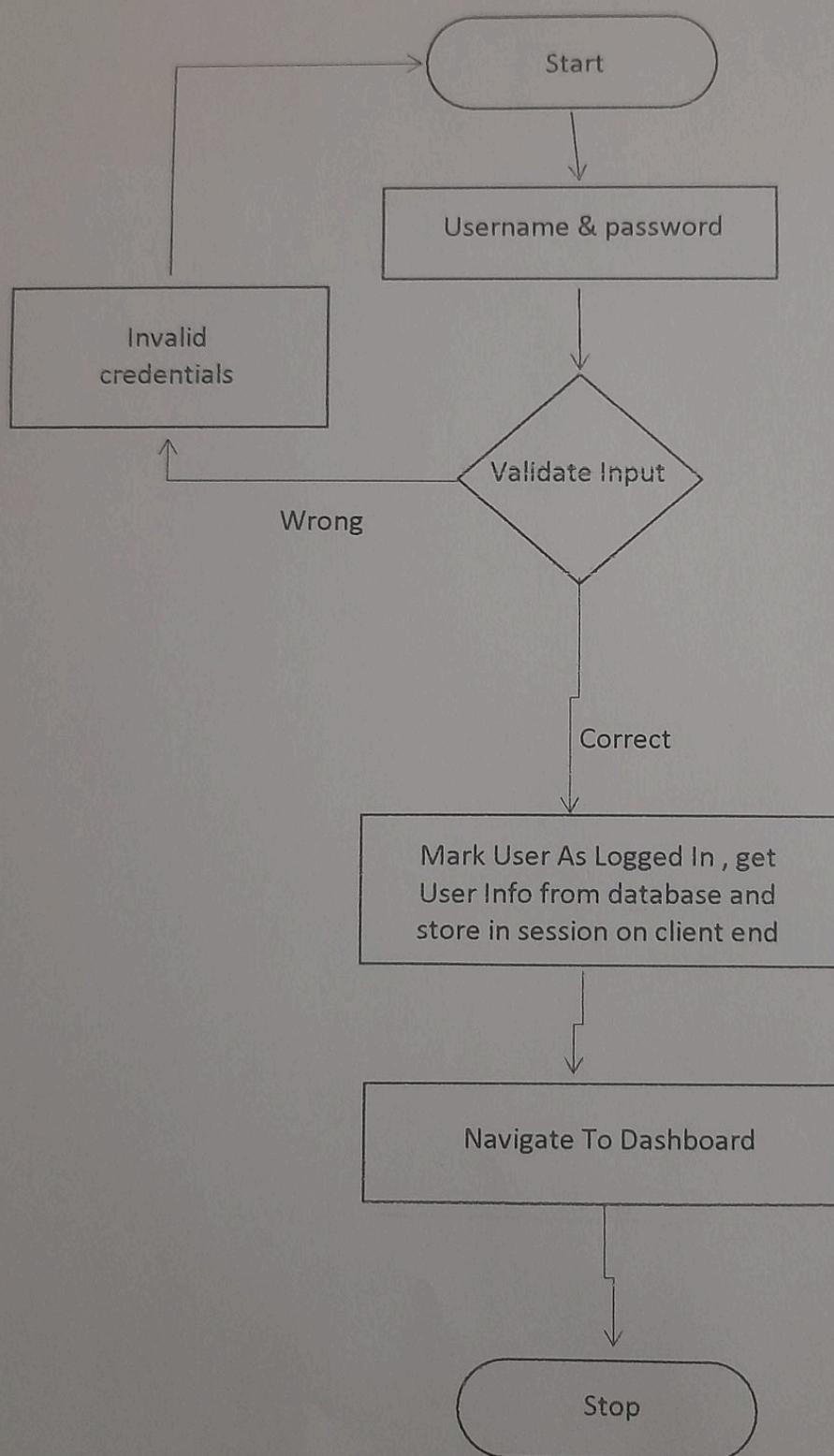
Column Name	Data Type	Constraints	Description
jobApp_id	varchar(20)	primary key	unique job app id
jobseeker_id	varchar(20)	foreign key ref JobSeekerDetails, (jobseeker_id)	unique job jobseeker id
jobPost_id	varchar(20)	foreign key ref JobPost , (jobPost_id)	unique job post id
jobApp_dat	interger	not null	job application date
jobApp_time	integer	not null	job application time
preApp_id	varchar(20)	foreign key ref PreApplicationDat a ,(preApp_id)	unique pre application data id

## 14. PreApplicationData

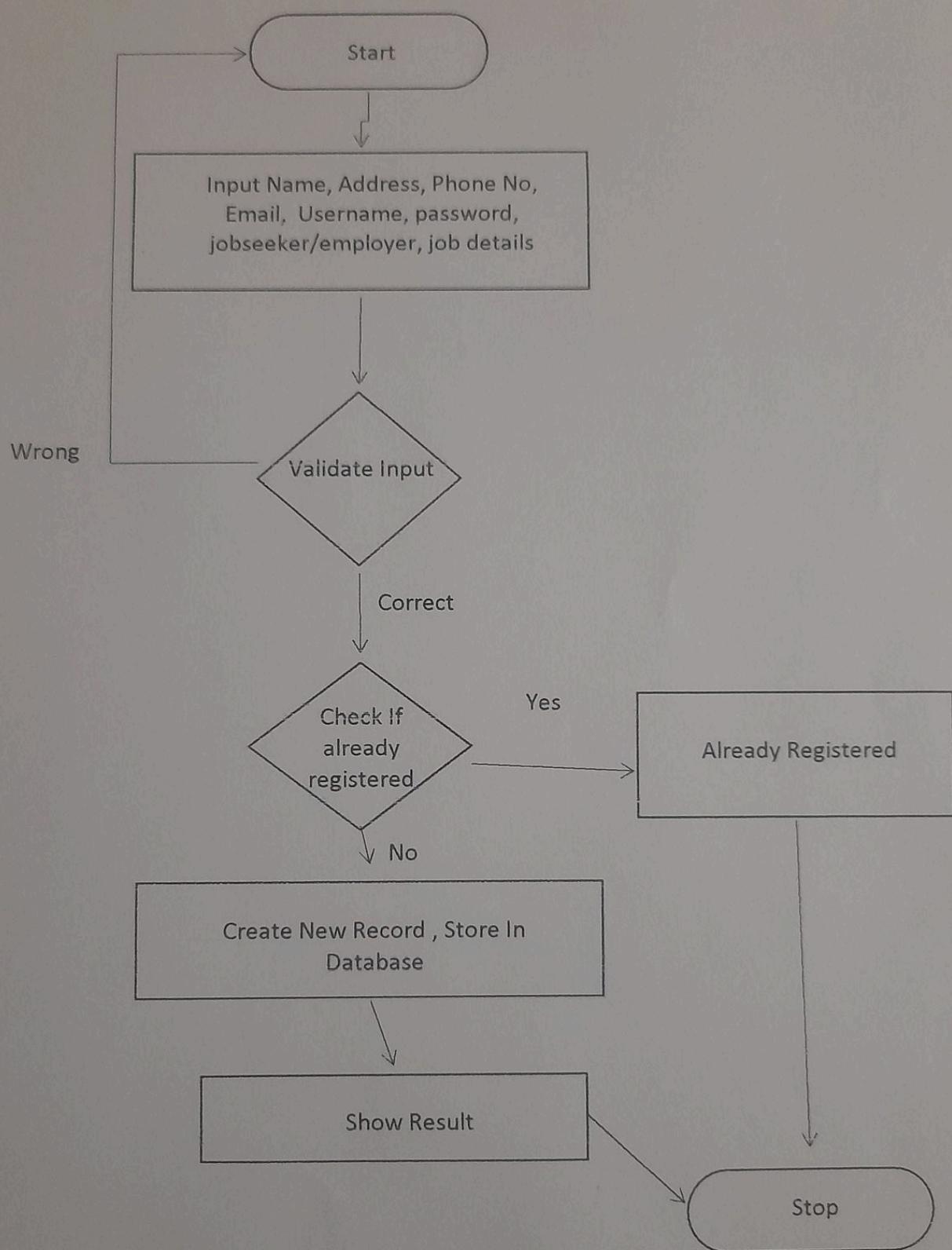
Column Name	Data Type	Constraints	Description
preApp_id	varchar(20)	primary key	unique job post id
preApp_data	varchar(256)		pre application job data

## PROCESS FOR EACH MODULE

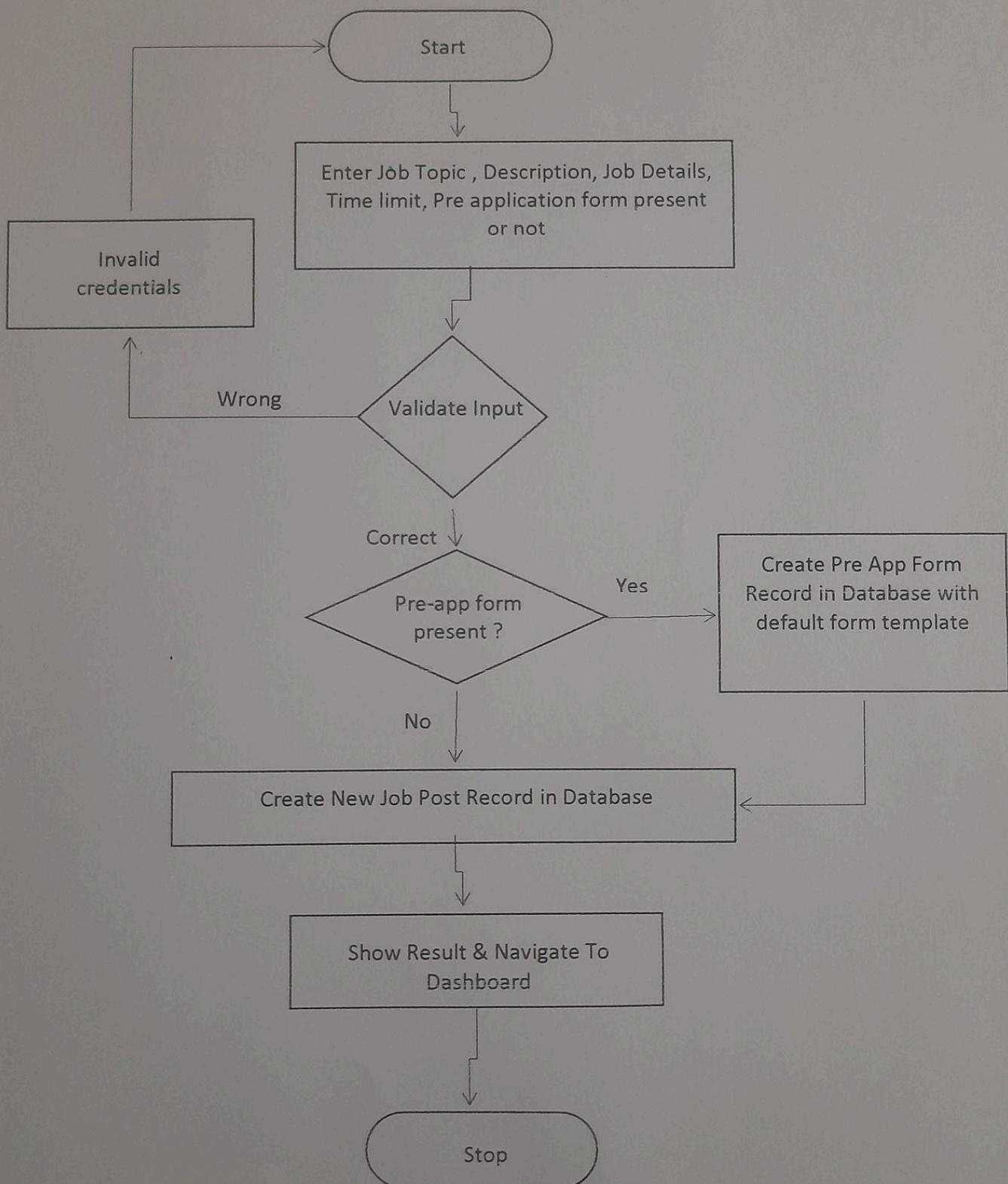
### Process For Login:



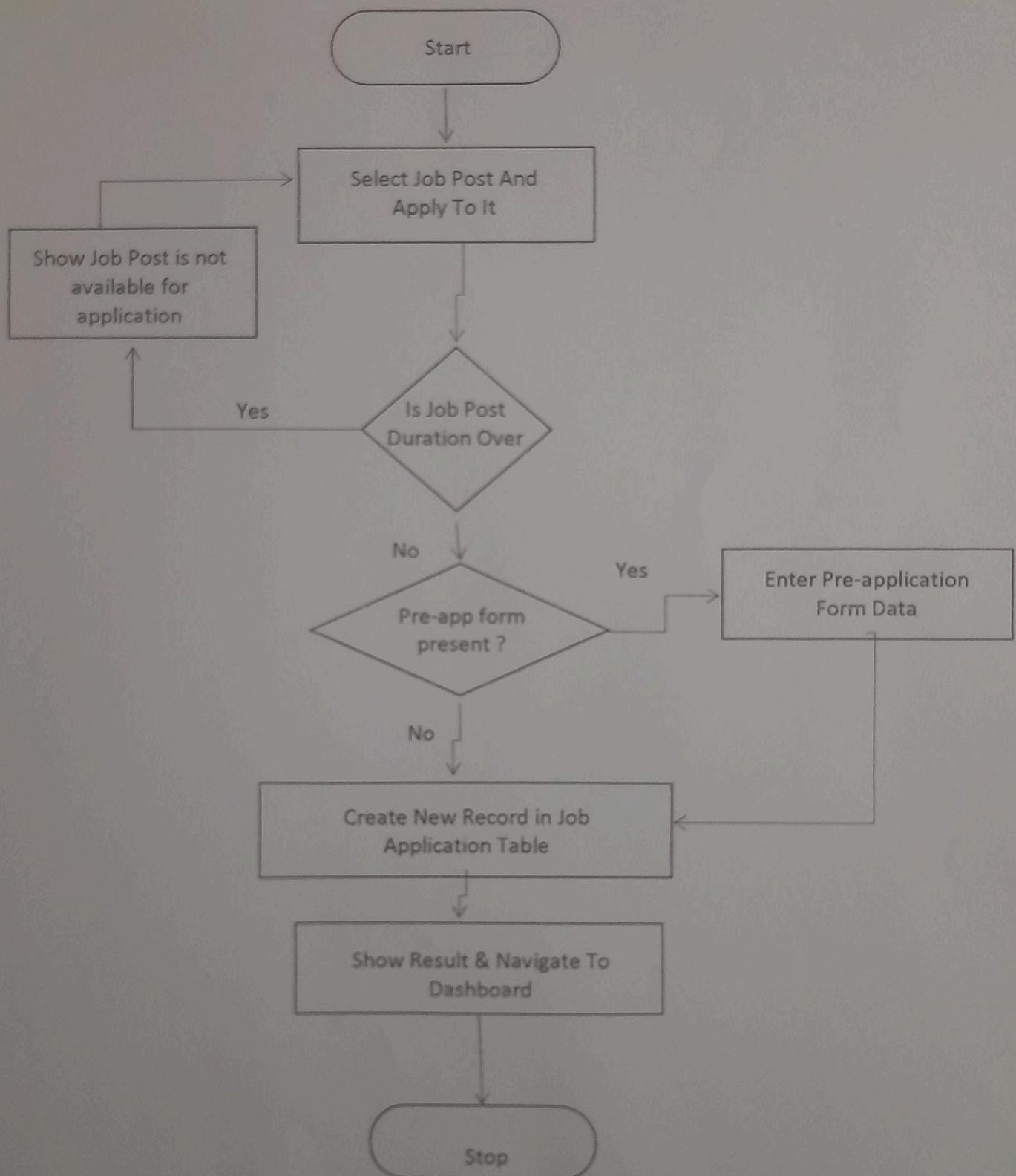
## Process For Jobseeker/Employer Registration:



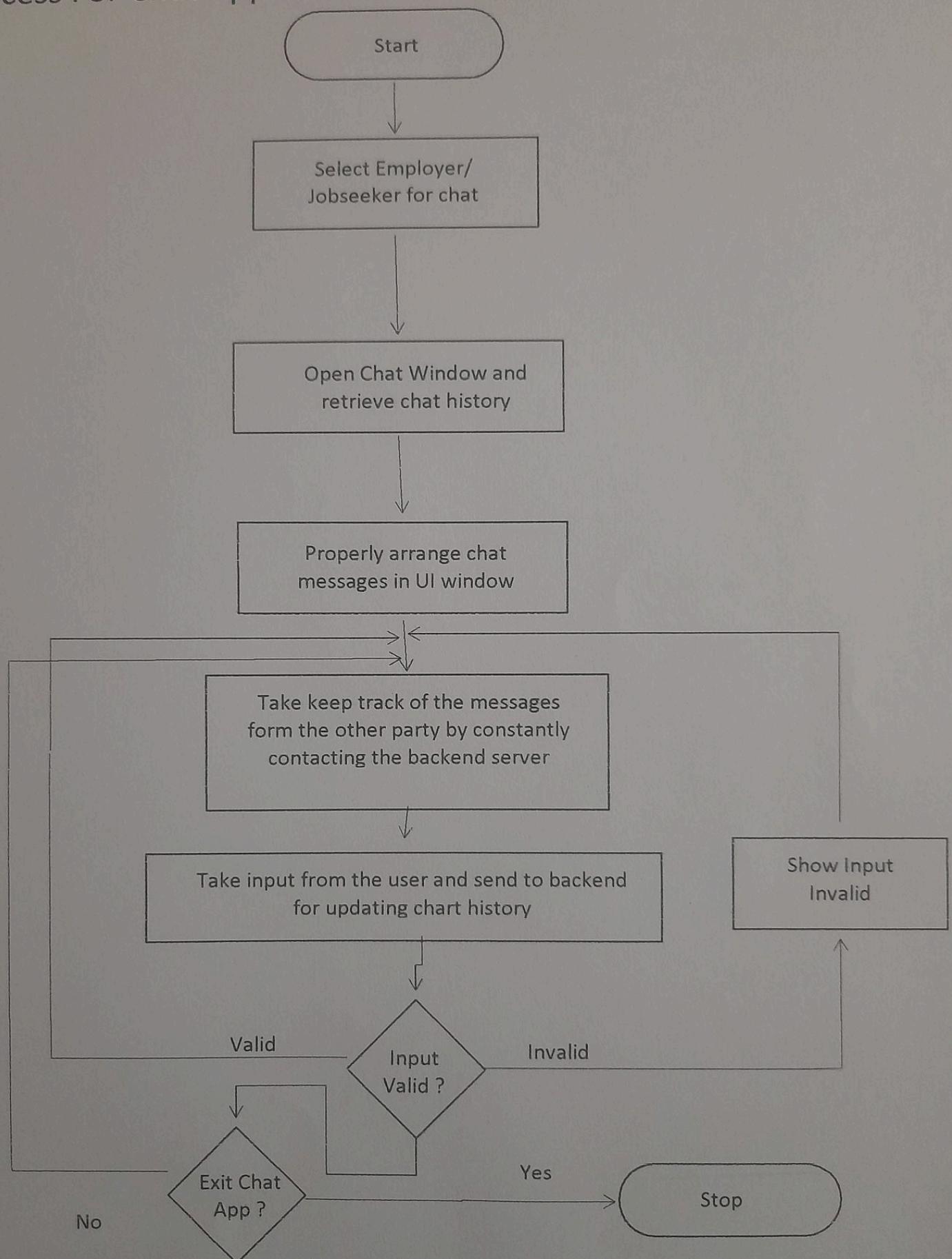
## Process For Job Posting:



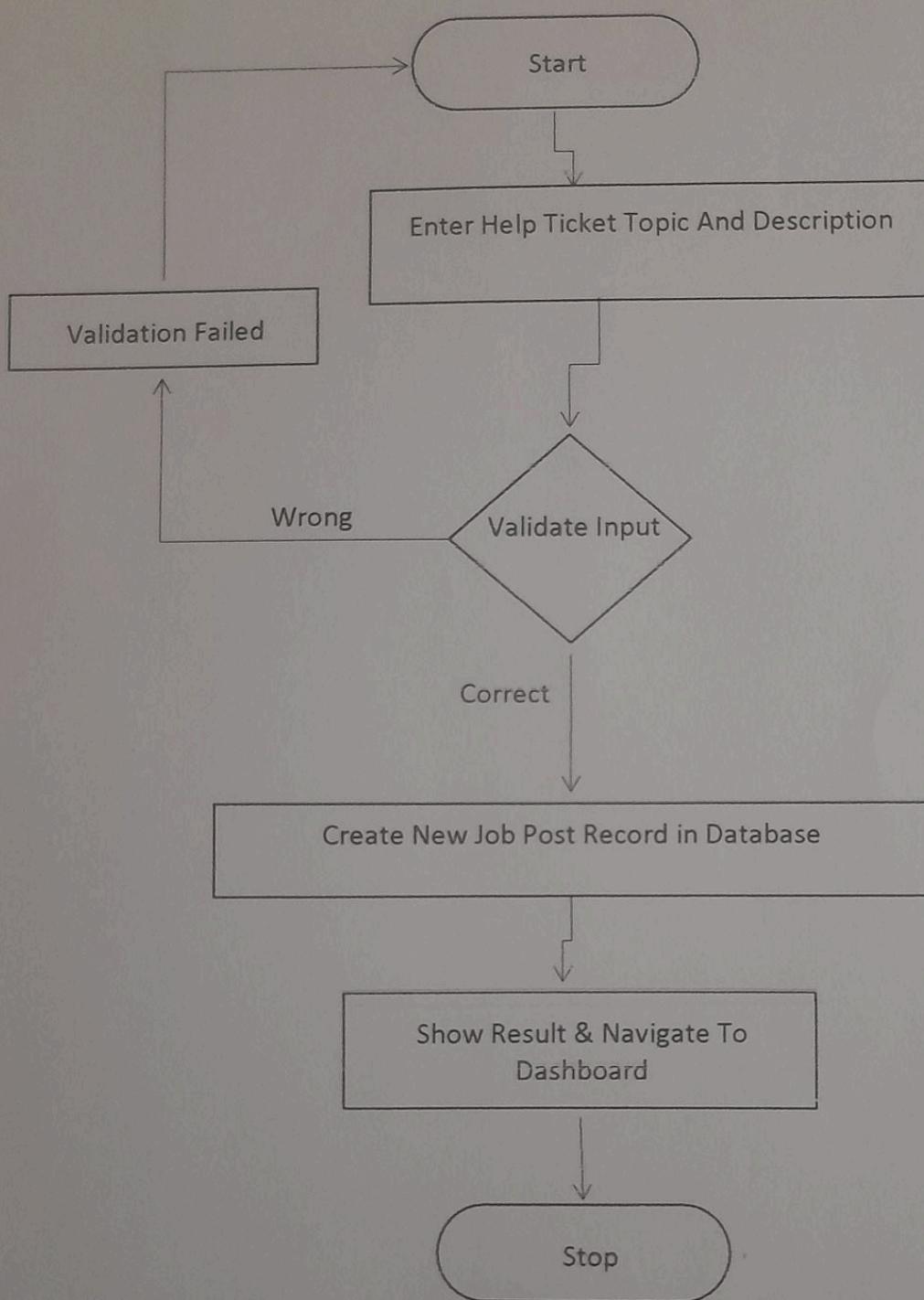
## Process For Job Application:



## Process For Chat Application:



## Process For Help Ticket Filing:



## LIST OF REPORTS TO BE GENERATED

This website and web application of Online Jobseeker Portal will produce several outputs the form of console display or in print.

- ◆ In the password verification process, if there is authentication failure the outputs will be displayed of authentication failure
- ◆ If there is an error in updating the database, the system will display the status of the database
- ◆ The respective user will get response to their queries in form of display and print
- ◆ A common error page will display error message irrespective of the nature of error.
- ◆ Application for job post or job post by employers should show confirmation status once completed successfully
- ◆ This website generates different report for different users. Display all this reports are:

### 1. Reports meant for the Administrator

**Number of jobseekers:** This report displays the jobseekers that are present under the various job types, ones who have applied to jobs and ones who have recently registered into the website. This report helps the administrator to know the jobseekers and their details. The display fields are :

{Jobseeker\_id,Name,address,email,phoneNo, jobDetails, jobApplicationDetails}

**Number of employers:** This report displays the employers that are present under the website, employers that have post jobs, employers who have recruited jobseekers, list of employers according to industry and employers based on the job post types. This report helps the administrator to know the employers and their details. The display fields are : {Employer\_id,Name,address,email,phoneNo, jobPosts, jobseeker\_recruitment, jobPost\_type,industry\_type}

**Number of help ticket:** This report displays the number of help tickets present in the system. It also displays the number of help tickets that have been responded to a, the help tickets that have been newly filed and the help tickets that based on whether the user is a jobseeker or an employer. This report is of extreme importance to the administrator as it helps to shed light on the proper functioning of the web application and also to tend to the problems the user is facing. The display fields are :

{HelpTicket\_id,User\_id,Name,User\_Type, Topic, Description, HelpTicket\_Status, HelpTicket\_Dat, HelpTicket\_Time}

## 2. Reports meant for the Jobseeker

**List of Job Applications Made:** This report displays the number of job applications made to different job post and their status. This report helps the jobseeker to get know the total number of job applications made by him/her. It also helps the user to know the individual job post to which the job application had been made and their status. The display fields are: {JobApplication\_id, JobPost\_id, jobApp\_status, employer\_id, jobApp\_dat, jobApp\_time}

**List of Help Tickets Filed:** This report displays the number of help ticket filed inorder to address griviences being faced. It also showed the help tickets that are present in the system and which have been filed by the jobseeker. This report helps the jobseeker to get status of the help tickets by getting to know their status and the reply message from the web application administrator. The display fields are: {HlpTkt\_Id,Topic,Description,Status,Reply\_Message, HlpTkt\_dat, HlpTkt\_time}

## 3. Reports meant for the Employer

**List of Job Posts Made:** This report display the number of job posts made by the respective employers. This report displays the job post with and the number of jobseeker who have applied to them. This report also shows the job posts according to their job details and industry type. The employer will also be able to know the job posts made previously which have concluded and how they performed. This report helps the employer to get a brief intro to the performance of the job posts and how many have applied to them thereby being able to make necessary changes whenever needed. The display fields are: {JobPost\_id, PreApp\_Form\_Present,JobPost\_topic, JobPost\_Descr, JobApplication\_made, JobPost\_Status, JobPost\_dat, JobPost\_time}

**List of Help Tickets Filed:** This report displays the number of help ticket filed in order to address grievances being faced. It also shows the help tickets that are present in the system and which have been filed by the employer. This report helps the employer to get status of the help tickets by getting to know their status and the reply message from the web application administrator. The display fields are: {HlpTkt\_Id, Topic, Description, Status, Reply\_Message, HlpTkt\_dat, HlpTkt\_time}

## IMPLEMENTATION & SECURITY

### Implementation Methodology

The Spring Framework is a new computing platform that simplified application development in the highly distributed environment of the internet. The Spring Framework is designed to fulfill the following objectives:

- ◆ To provide a consistent object-oriented programming environment whether object code is stored and executed locally, executed locally but Internet-distributed, or executed remotely.
- ◆ To provide a code-execution environment that minimizes software development and versioning conflicts.
- ◆ To provide a code-execution environment that eliminates the performance problems of scripted or interpreted environments.
- ◆ To make the developer experience consistent across widely varying types of applications, such as Window-based applications and Web-based applications.
- ◆ To build all communication on industry standards to ensure that code based on the Spring Framework can integrate with any other code.
- ◆ The Spring Framework has two main components the common language runtime and the Spring Framework class library. The common language runtime is the foundation of the Spring Framework. You can think of the runtime as an agent that manages code at execution time, providing core services such as memory management, thread management, and Removing, while also enforcing strict type safety and other forms of code accuracy that ensure security and robustness. In fact, the concept of code management is a fundamental principle of the runtime. Code that targets the runtime is known as managed code, while code that does not target the runtime is known as unmanaged code. The class library, the other main component of the Spring Framework, is a comprehensive, object-oriented collection of reusable types that one can use to develop applications ranging from traditional command line or graphical user interface applications to applications based on the latest innovations.
- ◆ The Spring framework can hosted by unmanaged components that load the common language runtime into their processes and initiate the execution of managed code, thereby creating a software environment that can exploit both managed and unmanaged features. The Spring Framework not only provides several runtime hosts, but also supports the development of third party runtime hosts.

- ◆ Angular JavaScript Framework
- ◆ Server Application Development
- ◆ Server-side applications in the managed world are implemented through runtime hosts. Unmanaged applications host the common language runtime, which allows your custom managed code to control the behavior of the server. This model provides one with all the features of the common language runtime and class library while gaining the performance and scalability of the host server.

## FUTURE SCOPE & FURTHER ENHANCEMENT OF THE PROJECT

### Future Scope

Future scope of the project is concerned with the degree of use of the application in various sector of its type. In every project of web design technology, there remains some scope of improvements. This scope of improvements is the cause of global web development in each day rather in each single moment. In this project also there are some places where some improvements could be made. But due to lack of knowledge and experience those improved styles had to be kept out of mind. Those scope of improvement are described below:

- ◆ The project can be made more user friendly. User friendliness is the key feature of a software related project. It required more knowledge on html , angular JavaScript framework and UI/UX concepts.
- ◆ Help documentations can be added to the project. This will enable the user to understand how the web application work and solve the problems being faced by him/her by themselves.
- ◆ Better filtering of the search results. This will allow the jobseeker to get job posts where the probability of him/her getting hired is very high.

### Future Enhancement

- ◆ In the future we will browse many job categories for providing better employment and recruiting opportunities.
- ◆ In the future we will create a mobile application for job application and recruitment which will be used in Mobile phones, Tablet and other mobile devices.
- ◆ Better Customer Services like better help ticket management.

## BIBLIOGRAPHY

During the development of the project, I have used many resources and for that I am grateful to all the people concerned.

Given below are the names of some books ,which I have used during the development and documentation of the project.

NAME OF THE BOOKS	AUTHOR	PUBLISHER
Angular Development with TypeScript	Yakov Fain and Anton Moiseev	Manning
Spring in Action	Craig Walls	Manning
Java Servlet Programming	Jason Hunter	O'Reilly Media, Inc
Oracle 19c Database Administration: Oracle Simplified	Tanveer A	
Cryptography And Network Security	Atul Kahate	
Data Communication And Networking	Willima Stallings	

### Webliography

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