CHAPTER-1

INTRODUCTION

This study developed a Machine Learning-based interviewing system to reduce the loss of talent caused by the emotional reactions and subjectivity of interviewers when viewing resumes. The designed system performs the function of resume assessment and explores the personality traits of candidates by classifying them into four dimensions of soft power, namely dominance, influence, steadiness, and compliance (DISC) after assessing the submitted electronic resumes. This system also assesses three dimensions of competence, namely education and experience, skills, and personality traits, which are indicated by the information contained in a resumes (e.g., education, experience, specialties, and autobiography).This paper reviews Artificial Intelligence (AI) approaches for automating the HR activities in recruitment process. It focuses on parsing the candidates' resumes and shortlisting them as selected or rejected. The main concern is that to analysis the resume through various types of aspects and finally shortlisting them on the basis of their analysis. We have designed a system which classifies the resumes' of applying candidates by considering the skill sets, interests and work experience mentioned in the resume of the This system represents better visualization of the selection results by using data visualization techniques. Data visualization speeds up the decision-making process in while conforming the screening of those shortlisted resumes in effective way. Hence, we can find, this system will lead the resume evaluation system towards fully automated procedure. The system examines the aforementioned data by collecting the current job market demands on the internet, performing natural language processing, and analysing the big data relevant to the position in question. The results of this the examination can help determine the quality of the match between job applicants and a business.

1.1 SCOPE AND OBJECTIVE:

The recruitment process consumes considerable time and personnel resources. A study proposed a simplified recruitment model in which a test of mental stress was automated, and text mining was applied to create a list with applicant scores for specific jobs.

This approach proved to be effective in matching the personality traits, skills, and personal qualities of applicants with the positions for which they applied.

Being interviewed can be particularly difficult for recent graduates because of introversion or insufficient experience.

An incorporated virtual reality and a chatbot into an interactive system to help software engineers improve their interview skills. The results demonstrated that the system helped job candidates improve their interview performance.

1.2 ORGANIZATION REPORT:

Organizational skills are crucial for many work experiences - so it's imperative that you showcase them on your resume. From working the report identifies areas of competence, room for improvement, and risks to modify decisions and support investment to managing a doctor's office, your sense of organization shows that you have the focus, clarity, and strategic ability to full fill a variety of tasks successfully. Document Classification is a very prominent area, it is applicable for a diversity of novel applications. As referred from the classification module is responsible for the classification of the tokens into suitable domain, so that a resume can be leveled as selected or not.

CHAPTER-2

HARDWARE AND SOFTWARE REQUIREMNENT:

2.1 HARDWARE REQUIREMENT:

1. processor	Intel dual core, i3, i5
2. ram	1GB
3. hard disk	80GB

2.2 SOFTWARE REQUIREMENT:

1 operating system	Window-7/8/10
2 programming language	Java
3 user interfaces	HTML, CSS
4 clint side scripting	JavaScript
5 IDE/ work bench	Eclipse/NetBeans
6 databases	Oracle/MySQL
7 server deployment	Tomcat

CHAPTER-3

REQUIREMENT ANALYSIS AND SPECIFICATION

3.1 SDLC METHODOLOGY:

The Software Development Life Cycle (SDLC) is a systematic, multistep, iterative process for building and delivering software applications. Development teams rely on a system development life cycle to create reliable software with as few issues as possible.

SPIRAL MODEL:

The spiral model, initially proposed by Boehm, is an evolutionary software process model that couples the iterative feature of prototyping with the controlled and systematic aspects of the linear sequential model. It implements the potential for rapid development of new versions of the software. Using the spiral model, the software is developed in a series of incremental releases. During the early iterations, the additional release may be a paper model or prototype. During later iterations, more and more complete versions of the engineered system are produced. Spiral model is one of the most important Software Development Life Cycle models, which provides support for Risk Handling. In its diagrammatic representation, it looks like a spiral with many loops.

The exact number of loops of the spiral is unknown and can vary from project to project. Each loop of the spiral is called a Phase of the software development process. The exact number of phases needed to develop the product can be varied by the project manager depending upon the project risks. As the project manager dynamically determines the number of phases, so the project manager has an important role to develop a product using the spiral model.

The Spiral model is called a Meta-Model because it subsumes all the other SDLC models. For example, a single loop spiral actually represents the Iterative Waterfall Model. The spiral model incorporates the stepwise approach of the Classical Waterfall Model. The spiral model uses the approach of the Prototyping Model by building a prototype at the start of each phase as a risk-handling technique.

Also, the spiral model can be considered as supporting the Evolutionary model – the iterations along the spiral can be considered as evolutionary levels through which the complete system is built. The spiral model is similar to the incremental development for a system, with more emphasis placed on risk analysis.

The spiral model has four phases: Planning, Design, Construct and Evaluation. A software project repeatedly passes through these phases in iterations

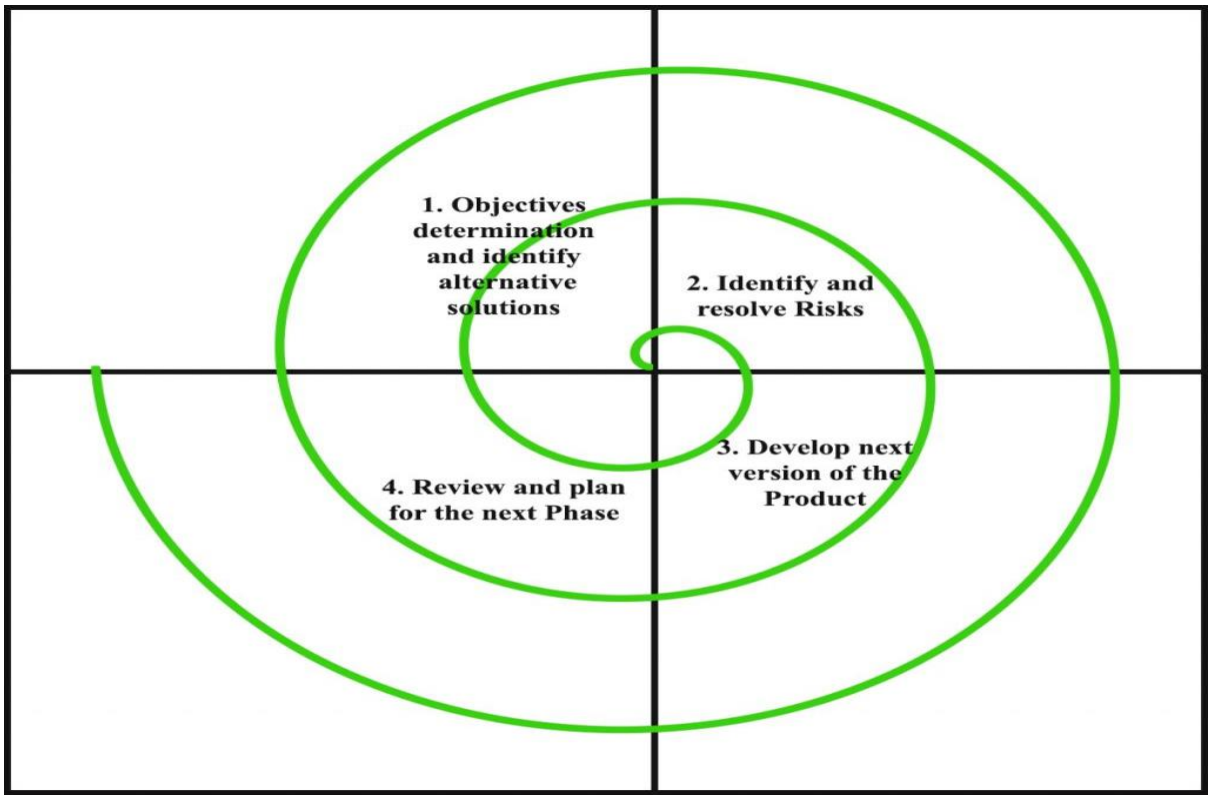


Figure3.1 Spiral Model

3.2.0 SYSTEM ANALYSIS:

Systems analysis is the process by which an individual (s) studies a system such that an information system can be analysis modelling, and a logical alternative can be chosen.

Systems analysis projects are initiated for three reasons: problems, opportunities, and directives. System analysis is conducted for the purpose of studying a system or its parts in order to identify its objectives. It is a problem-solving technique that improves the system and ensures that all the components of the system work efficiently to accomplish their purpose.

3.2.1. LIMITATION OF EXISTING SYSTEM:

In the available Online resume evaluation System, hr and user maintains the details of each resume and cv on the registers so to find out the number of resumes applied in the user they need to go to check the entire entry which makes the process slow.

While they need to spend an extra hour to maintain the records of books. For a student who wants to know about a book in the library need to search the entire book section.

The hr needs to check the status of the resume and cv means the last date of job, how many user candidates has applied.

3.2.2 PURPOSE SYSTEM:

Proposed system is an automated resume evaluation System. Through our software user can add books, search books, renewal, update information, edit information, and return books in quick time. Applicant tracking systems act as electronic gatekeepers for employers and hiring managers. The ATS parses a resume's content into categories and then scans it for specific keywords to determine if the job application should be passed along to the recruiter. Its job is to essentially weed out unqualified applicants so the recruiter can devote

his or her time to evaluating the candidates who are more likely to be a match for the position. In other words, the ATS is apt to toss the least-qualified candidates, rather than identify the applicants who are the best fit.

Unfortunately, that means if a resume template is not written and formatted with the applicant tracking system in mind, a qualified candidate can be easily passed over.

Our proposed system advantages are User friendly interface, Fast access to database, less error, More Storage Capacity, Search facility, Look and Feel Environment, Quick transaction All the manual difficulties in managing the resume have been rectified by implementing computerization.

3.3 SOFTWARE REQUIREMENT AND SPECIFICATION DOCUMENT:

3.3.1 INTRODUCTION:

This page includes the SRS text for the resume evaluation system initiative. A method of production consists of separate phases, with each step ending with a given output.

The primary explanation for using a staggered process is that it splits the issue of software development into a successful series of stages, each handling a separate software development question. This means that if the entire thing was solved simultaneously, the cost of implementation is smaller than what it would have been. In comparison, a staggered approach requires adequate consistency and progress testing at some specified stages during production (end of the process). Without this, one would have to wait until the end to see what software has been updated. as name suggests, is complete specification and description of requirements of software that needs to be fulfilled for successful development of software system.

.These requirements can be functional as well as non-functional depending upon type of requirement. The interaction between different customers and contractor is done because it's necessary to fully understand needs of customers.

The following steps are part of every problem-solving in software:

REQUIREMENT ANALYSIS:

Requirement Research is conducted to clarify the issue to be addressed by the automated framework. In this step, there are two main operations: problem comprehension or review and definition of specifications. The goal of problem analysis is to consider the issue and its context, as well as the specifications of the new method to be created. The specifications must be defined in the requirement specification document until the issue is evaluated and the fundamentals understood. Both technical and performance specifications must be defined in the requirements document; the formats of inputs and outputs etc.

3.3.2 OVERALL DESCRIPTION:

The planned resume evaluation system Scheme would take care of the specifics of the latest book at any moment. The book dilemma, book return, would immediately update the new book information so that the user will have the latest resume details updated.

3.3.3 PRODUCT FUNCTION:

The key goal of this initiative is to large the work done manually. The Problems, Refunds, and admin and hr can be handled by this program. Generating separate Record-Keeping Records according to end-user criteria.

USER CHARACTERISTICS:

USER MODULE:

The user can verify the availability of the resume in the user module. Check resume and check mail.

ADMINSTRATION MODULE:

The sub-module in the administration module are Register user, Check email, Verify ID.

HR MODULE:

The hr can verify the availability module are view resume, analysis resume and view job and requirement.

GENERAL CONSTRAINTS:

To have updated & accurate values, any change about the resume must be registered Assumption and dependencies.

All the details entered will be reliable and up to date. This software package is built with the assistance of the sun micro framework using java as the front end. The back end of Microsoft SQL Server 2005, which is supported by Windows 7.

3.3.4. SPECIFIC REQUIREMENT:

EXTERNAL INTERFACE REQUIREMENT:

It should be simple and easy for consumers to understand and use. It should also be an immersive interface. For the user and administrator, the device should prompt the login to the program and correct feedback parameters.

USER INTERFACE:

The program offers a decent graphical interface for the user that can be run on the device by an administrator, performing the necessary tasks such as designing, reviewing, displaying the

book information. Allows users to access quick reports in between real hours, such as resume Issues/problem, etc. Based on various requirements, stock verification, and search service.

HARDWARE INTERFACE:

Operating system: window

Hard disk:40 GB, RAM: 256 MB

Processor: Pentium(R)Dual-core CPU

SOFTWARE INTERFACE:

Java language

Net beans IDE 7.0.1

MS SQL server 2005/oracle

FUNCTIONAL REQUIREMENTS:

we can login of the resume system in this module. we will keep manage the customer details in this module. this module is used to keep track of the specific of resume details

this module allows the views of resume to be monitored.

PERFORMANCE REQUIREMENTS:

The computer's capability depends on the software's efficiency. Provided the database size is big enough, the program will take any number of inputs. This would be dependent on the memory space available.

DESIGN CONSTRAINTS:

Whenever a hr wants to take a resume, the resume issued by the hr authority can check all the resume information as well as details and store it in the database. The hr will have an

identification card that will be used for the resume issue, fine payment, etc. A great deal of human interference can be avoided in the event of resume evaluation.

SYSTEM ATTRIBUTES:

Maintainability: The device would not need any servicing. The database is created by the end-user and is thus retained by the end-user.

Portability: The device is built to be stable, so it cannot be portable.

Availability: This system will only be usable until it operates on the system it is built on.

Scalability: Applicable.

3.3.5. MODULE DETAIL DESCRIPTION:

Administrator: A solid system admin summary should detail your current job, total amount of work experience, and work-related duties you excel at. Additionally, it should include any achievements that highlight hard or soft skills mentioned in the job description.

Job: Customer service jobs call for great communication skills, and the ability to direct users

to what they need. Now it’s your turn to communicate how valuable you are to employe and direct them to your best qualifications. Take your customer service career to the next level by using our professional resume examples and tips.

Hr: the division of a business that is charged with finding, screening, recruiting, and training job applicants, as well as administering employee-benefit programs.

User: A functional resume focuses on skills and experience rather than on your chronological work history. It's typically used by job seekers who are changing careers or who have gaps in their employment history.

CHAPTER-4

SOFTWARE DESIGN

The design process aims to prepare a response to the issue identified by the document of specifications. The first step in going from the problem domain to the solution domain is this process. Three different outputs frequently emerge from the construction activity: architectural design, high-level design, and comprehensive design.

4.1 UML DIAGRAM:

This is the Activity UML diagram of resume evaluation System which shows the flows between the activity of resume system. The main activity involved in this UML Activity Diagram of resume evaluation System are as follows: **Admin, Hr, user, job.**

Features Of the Activity UML Diagram Of resume evaluation System:

Admin User can search resume, view description of a selected resume, add resume, update resume and delete resume It shows the activity flow of editing, adding and updating of resume details User will be able to search and generate report of resume Address All objects such as (resume update login and logout and view job) are interlinked Its shows the full description and flow of resume job request candidate etc.

4.1 DATA FLOW DIAGRAM:

A graphical tool used to describe and analyses the moment of data through a system manual or automated including the process, stores of data, and delays in the system. Data Flow Diagrams are the central tool and the basis from which other components are developed. The transformation of data from input to output, through processes, may be described logically and independently of the physical components associated with the system.

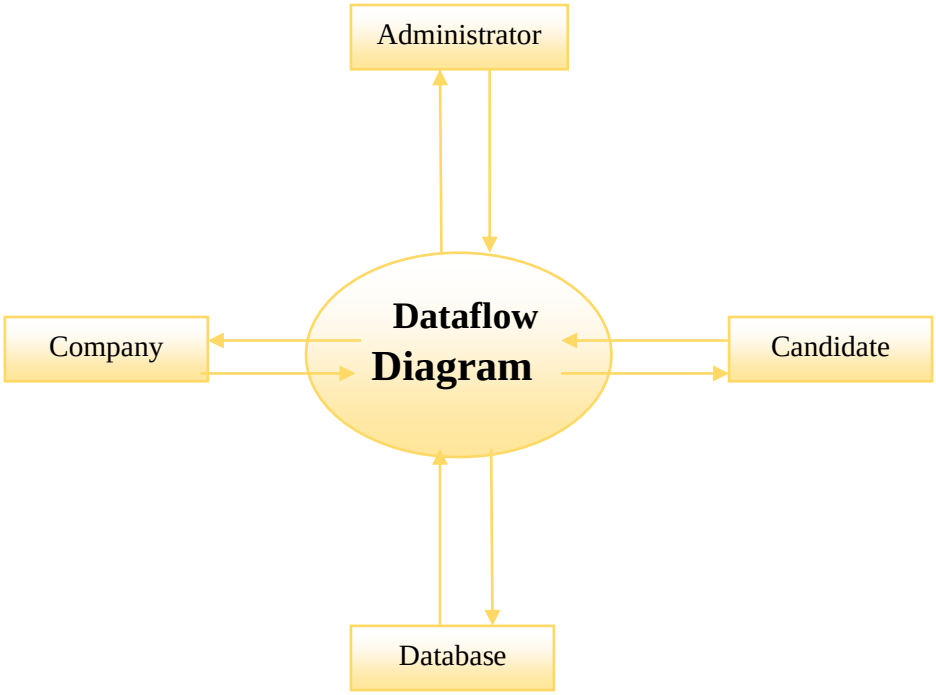


Figure 4.1: Context diagram.

4.1.1. USE CASE DIAGRAM:

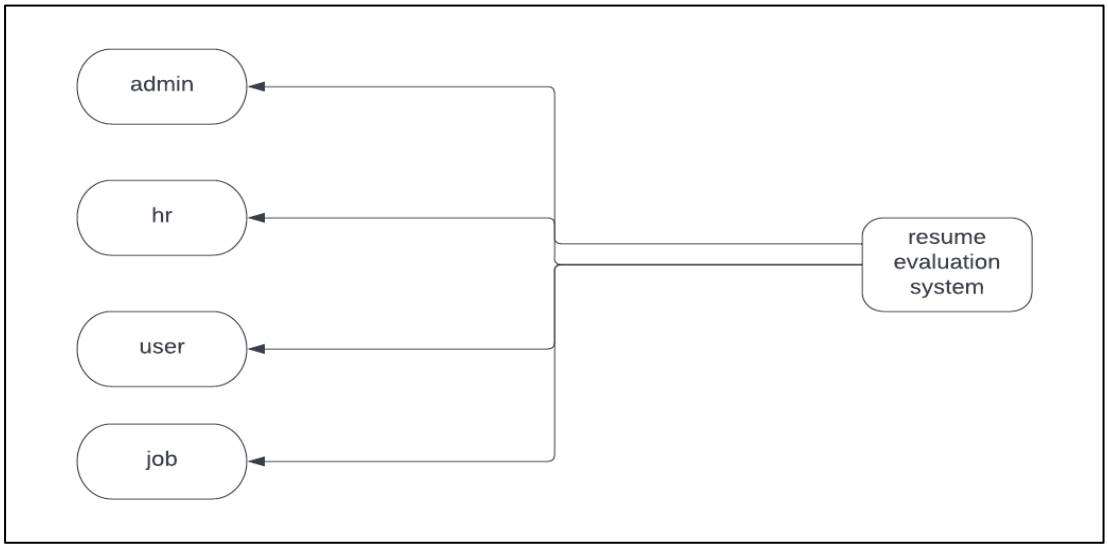


figure4.1.1.1: resume evaluation system

4.1.1.2ADMIN:

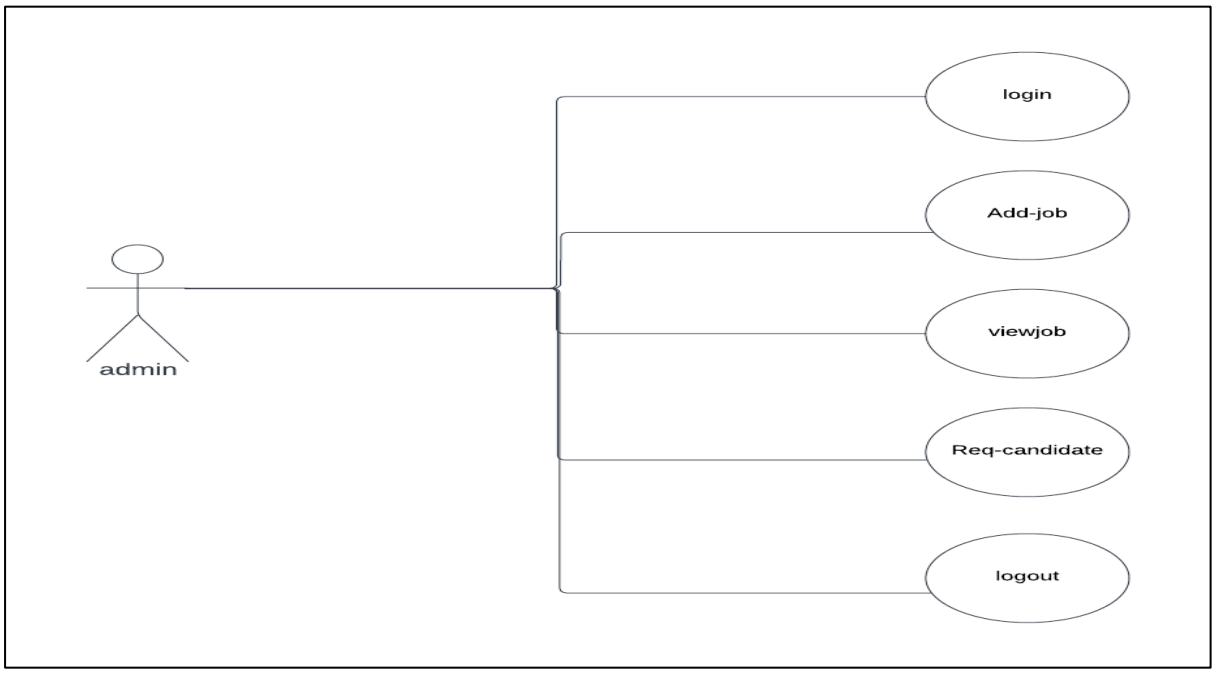


figure4.1.1.2: admin

4.1.1.3HR:

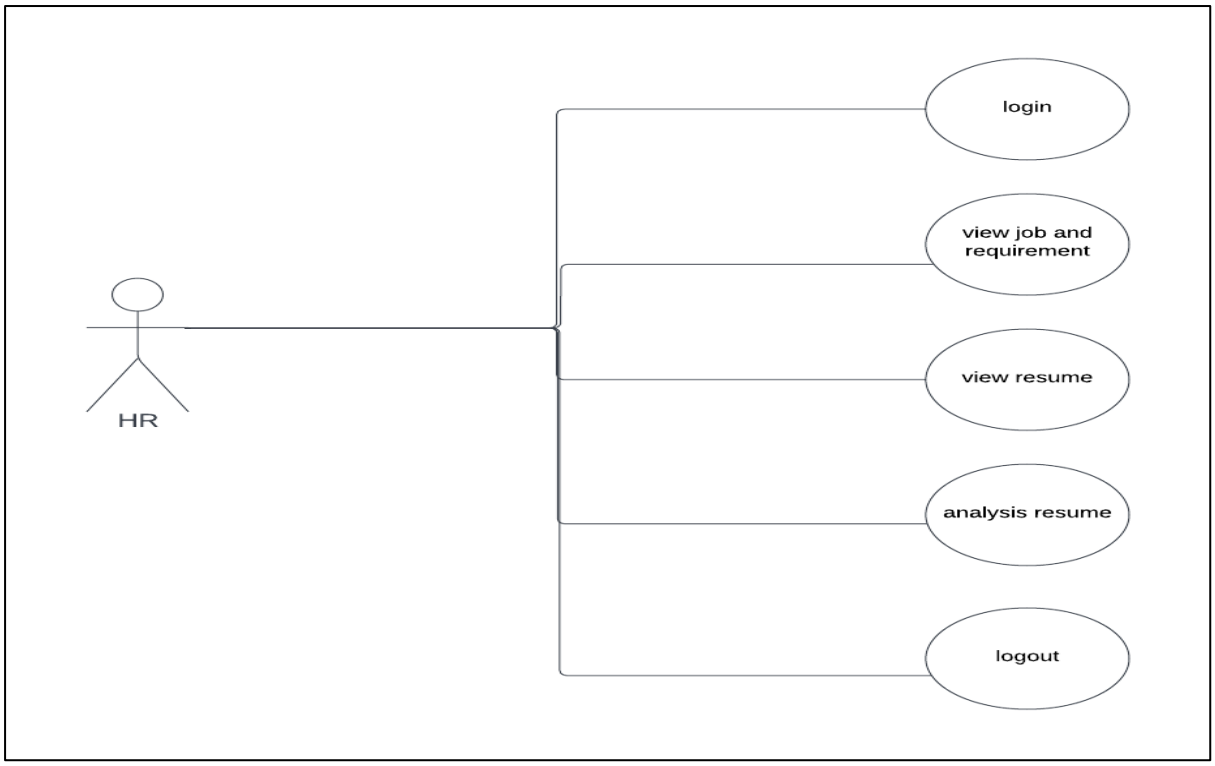


figure4.1.1.3: hr

4.1.1.4 USER:

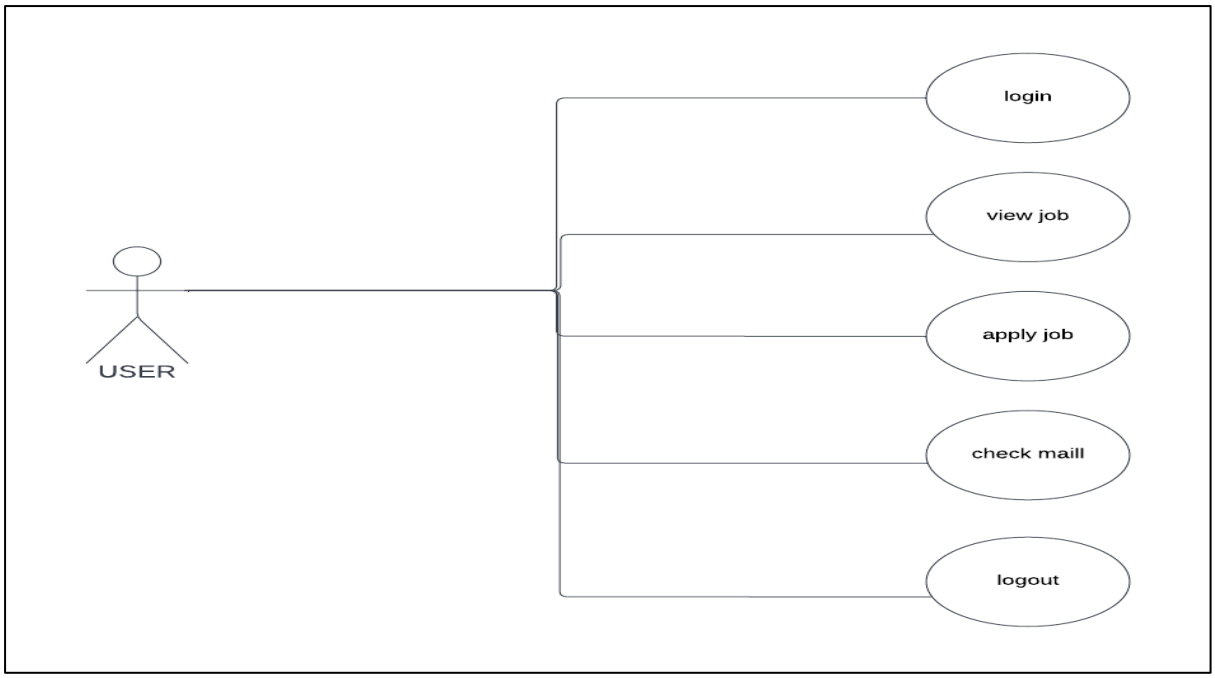


figure4.1.1.4: user

4.1.1.5 JOB:

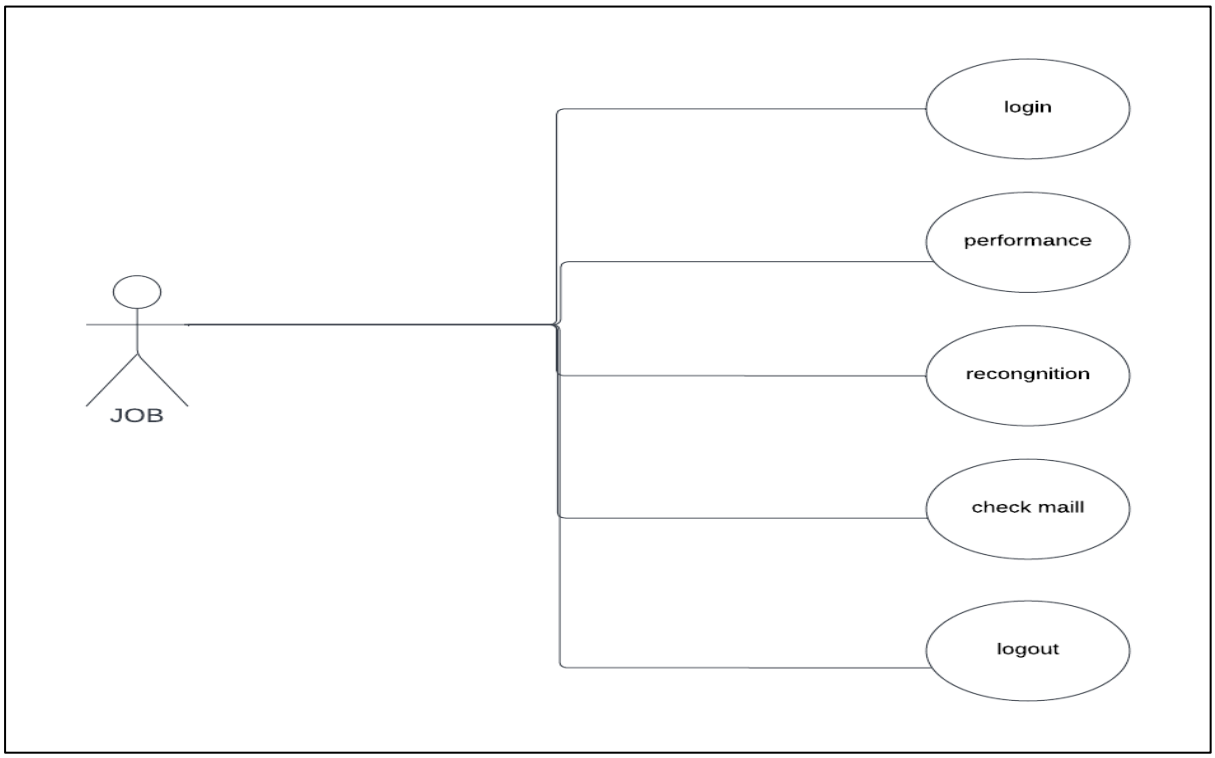


figure4.1.1.5: job

4.1.2ACTIVITYDIAGRAM:

4.1.2.1 ADMIN:

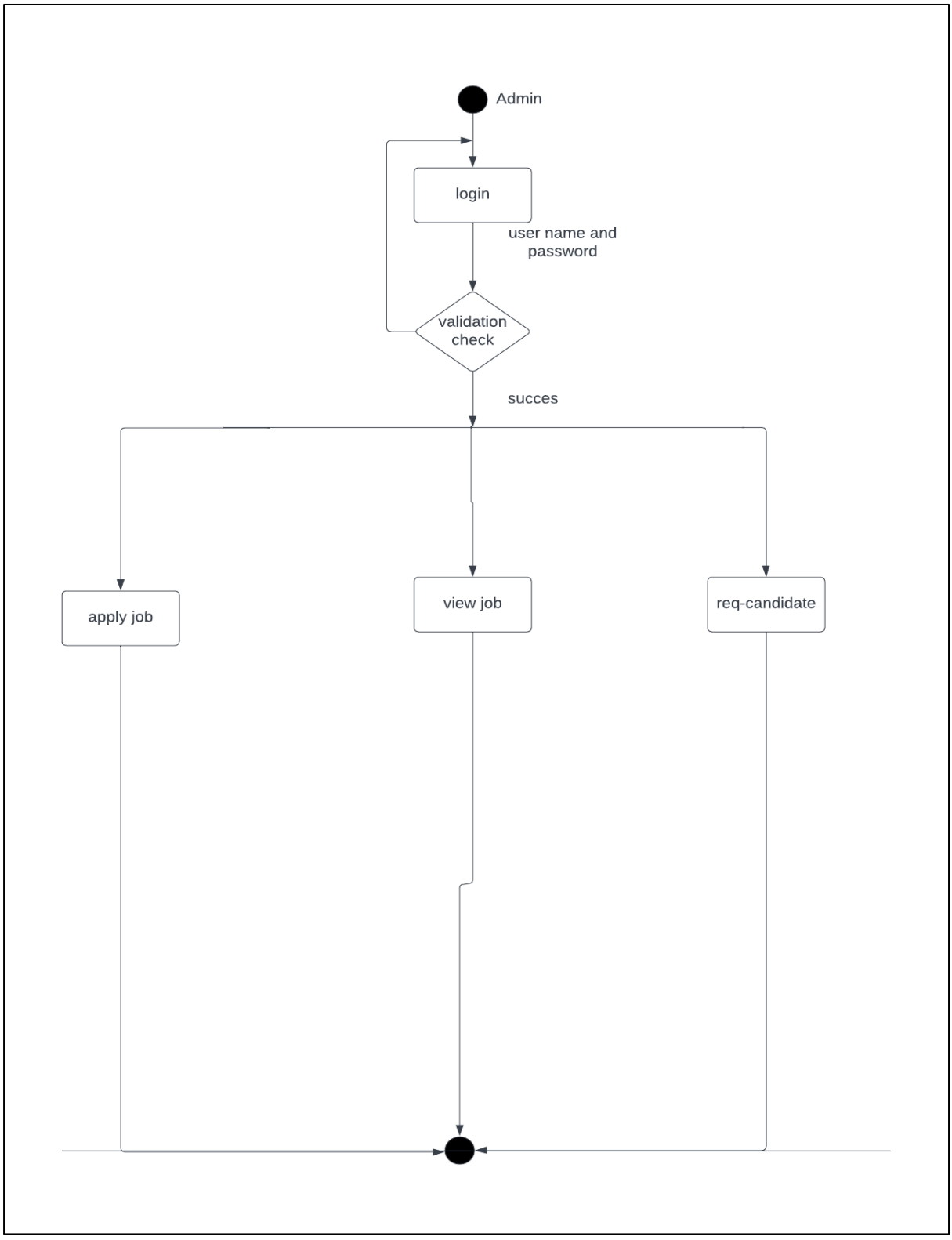


figure4.1.2.1: admin

4.1.2.2 HR:

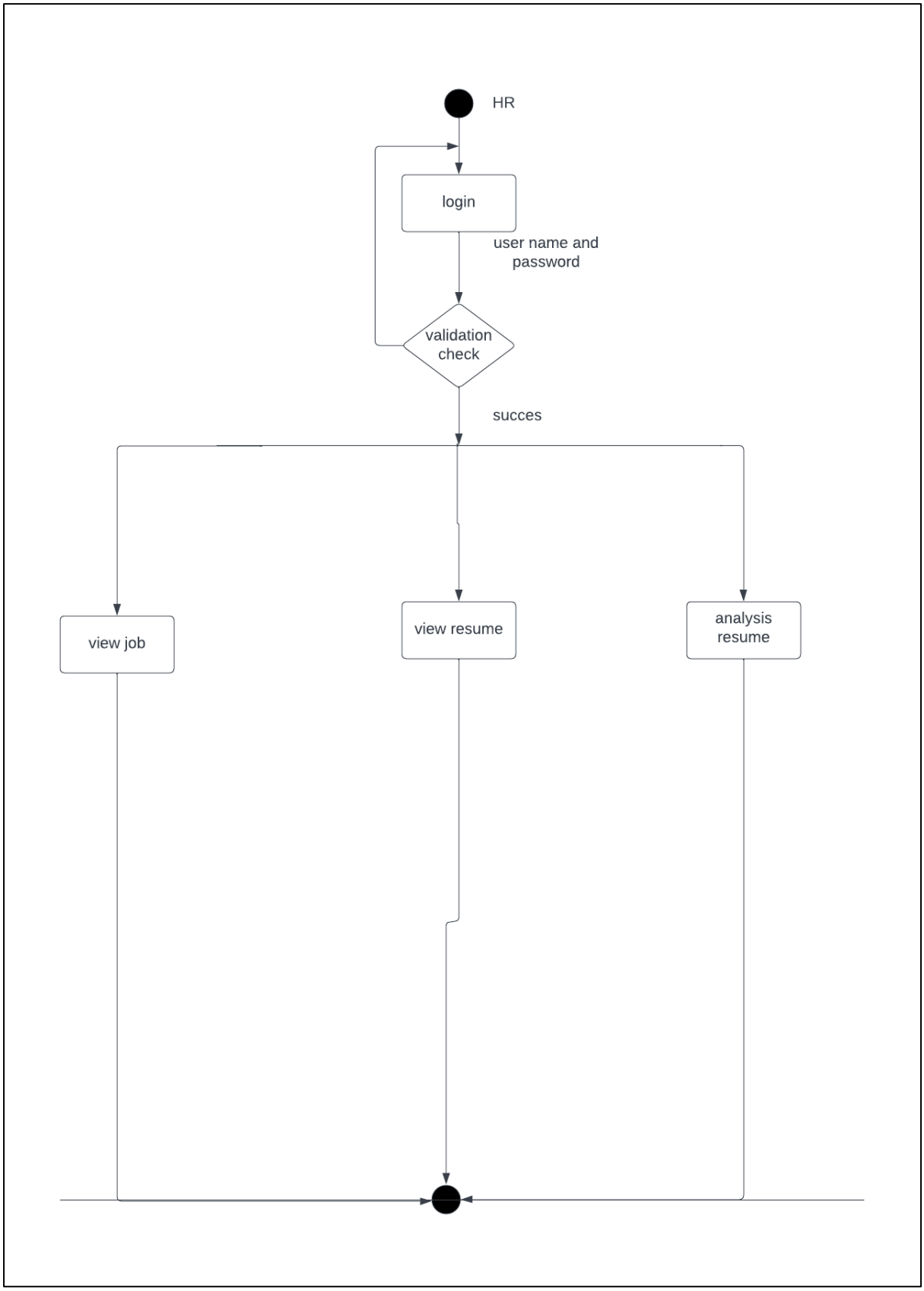


figure4.1.2.2: hr

4.1.2.3 USER:

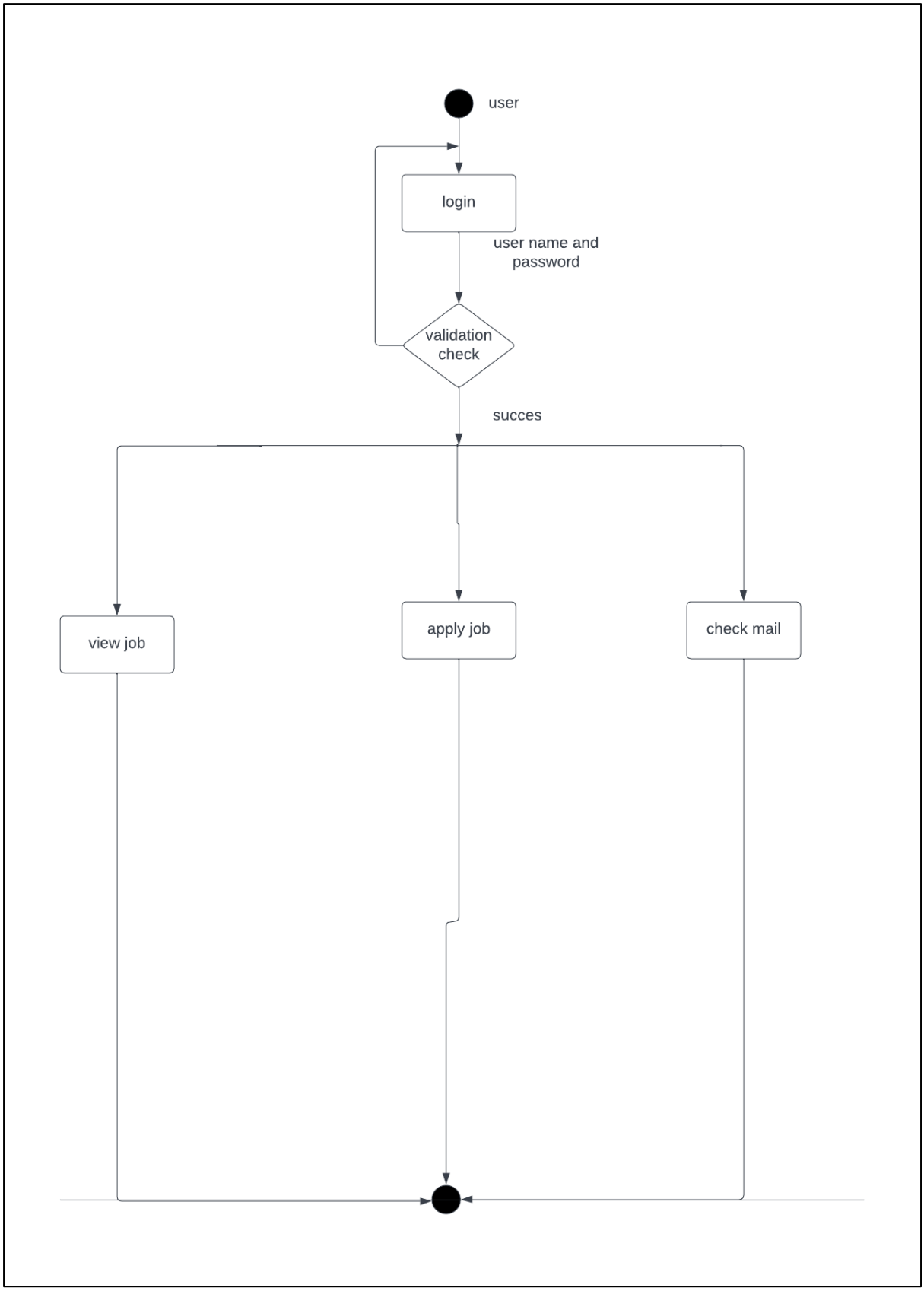


figure4.1.2.3: user

4.1.2.4 JOB:

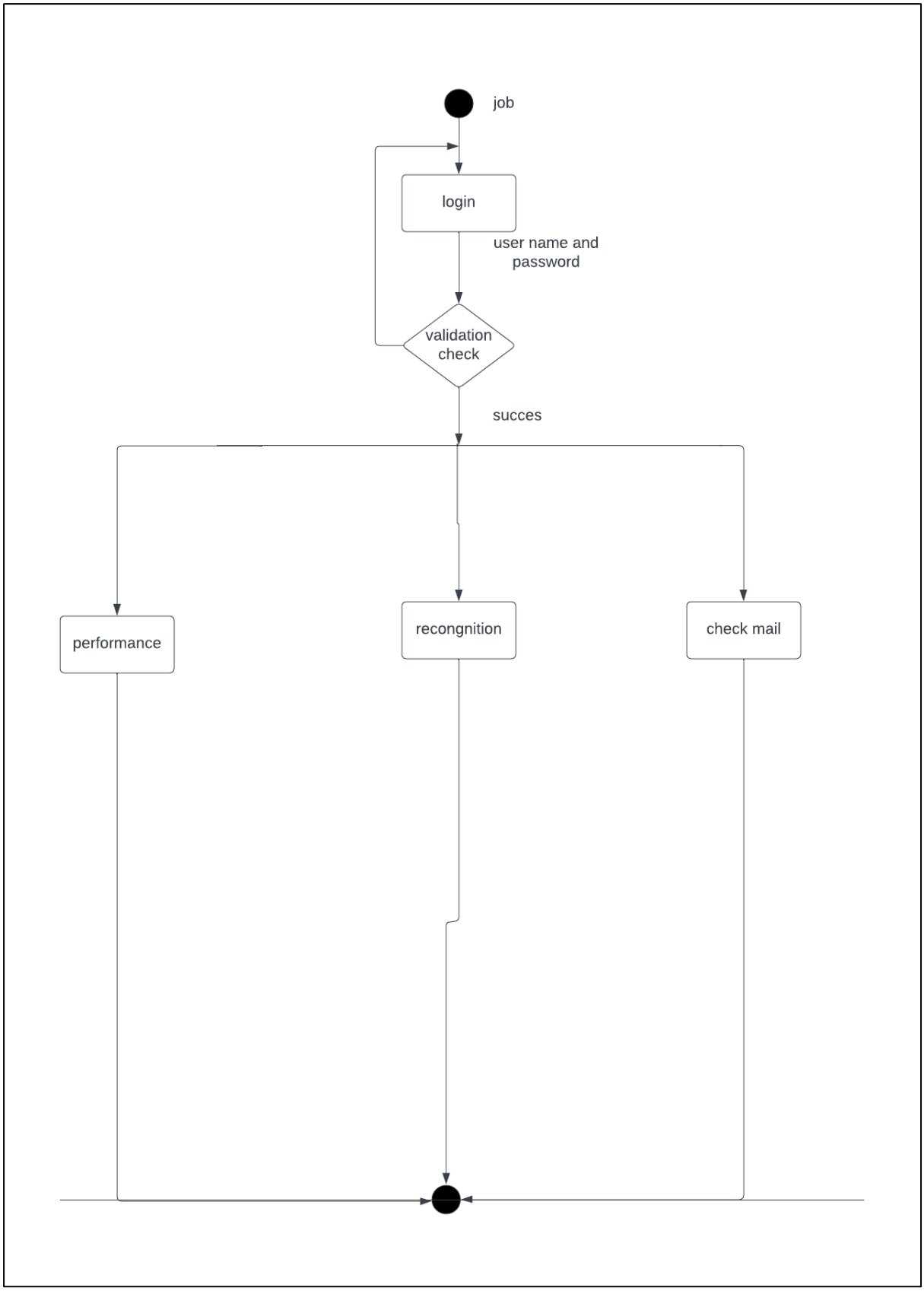


figure4.1.2.4: job

CHAPTER-5

BACKEND DESIGN

The parts and characteristics developed by backend designers are indirectly accessed by users through a front-end application. Activities, like writing APIs, creating libraries, and working with system components without user interfaces or even systems of scientific programming, are also included in the backend.

The parts and characteristics developed by backend designers are indirectly accessed by users through a front-end application.

Activities, like writing APIs, creating libraries, and working with system components without user interfaces or even systems of scientific programming, are also included in the backend.

5.1 ER DIAGRAM:

The object relationship pair is the cornerstone of the data model. These pairs are represented graphically using E-R diagrams. A set of primary components are identified for the ERD: data objects, attributes, relationships and various type indicators. The primary purpose of ERD is to represent data objects and their relationships.

ER Diagram stands for Entity Relationship Diagram, also known as ERD is a diagram that displays the relationship of entity sets stored in a database.

In other words, ER diagrams help to explain the logical structure of databases. ER diagrams are created based on three basic concepts: entities, attributes and relationships.

ER Diagrams contain different symbols that use rectangles to represent entities, ovals to define attributes and diamond shape store present relationships.

At first look, an ER diagram looks very similar to the flowchart. However, ER Diagram includes many specialized symbols, and its meanings make this model unique.

The purpose of ER Diagram is to represent the entity framework infrastructure.

stands for Entity Relationship Model is a high-level conceptual data model diagram. ER model helps to systematically analysis data requirements to produce a well-designed database.

The ER Model represents real-world entities and the relationships between them. Creating an ER Model in DBMS is considered as a best practice before implementing your database.

ER model helps you to analysis data requirements systematically to produce a well-designed database. So, it is considered a best practice to complete ER modelling before implementing your database.

ER diagrams are translatable into relational tables which allows you to build databases quickly ER diagrams can be used by database designers as a blueprint for implementing data in specific software application.

Entity Relationship Diagram Symbols & Notations mainly contains three basic symbols which are rectangle, oval and diamond to represent relationships between elements, entities and attributes.

There are some sub-elements which are based on main elements in ERD Diagram. ER Diagram is a visual representation of data that describes how data is related to each other using different ERD Symbols and Notations.

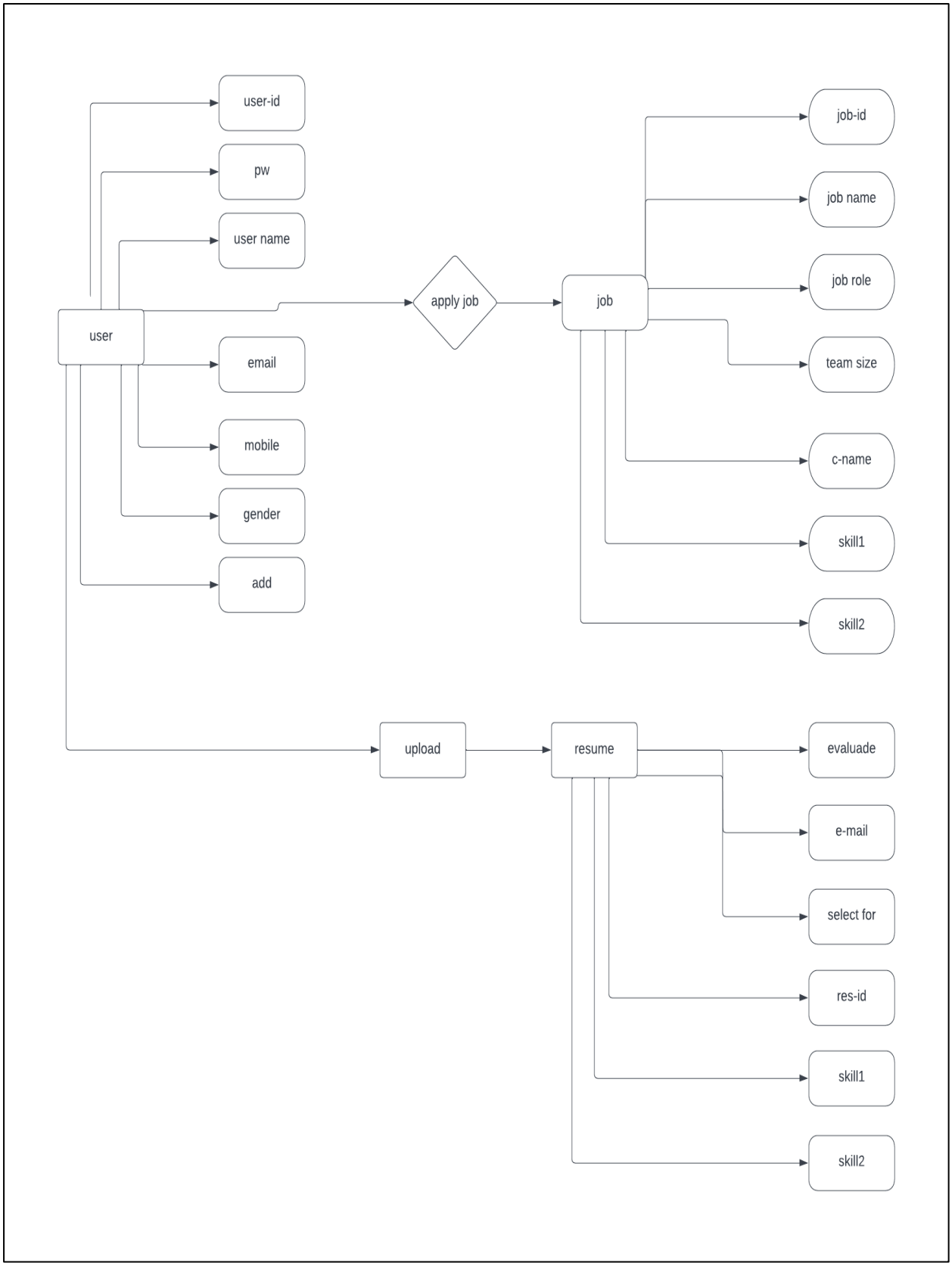
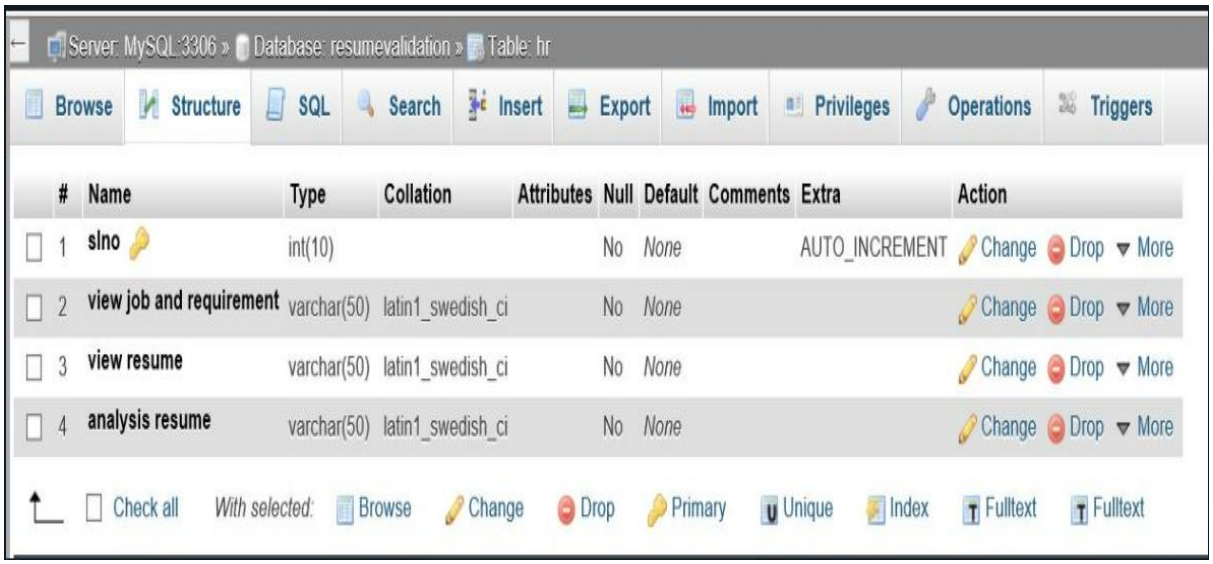


FIGURE 5.1: ER DIAGRAM

5.2 DATA DICTIONARY:

5.2.1 HR TABLE:



5.2.2 USER TABLE:

CHAPTER-6

CODING

6.1 HR LOGIN:

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
  <head>
    <meta charset="utf-8">
    <title>animated Login Form </title>
    <link rel="stylesheet" href="style.css">
  </head>
  <body>
    <div class="center">
      <h1>hr Login</h1>
      <form method="post">
        <div class="txt_field">
          <input type="text" required>
          <span></span>
          <label>Username</label>
        </div>
       <div class="txt_field">
```

```
      <input type="password" required>
         <span></span>
         <label>Password</label>
       </div>
       <div class="pass">Forgot Password? </div>
       <input type="submit" value="Login">
        <div class="signup_link">
         Not a member? <a href="#">Signup</a>
       </div>
     </form>
   </div>
  </body>
</html>
```

6.2 USER LOGIN:

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
  <head>
  <meta charset="utf-8">
    <title>animated Login Form </title>
    <link rel="stylesheet" href="style.css">
  </head>
```

```
 <body>
  <div class="center">
   <h1>user Login</h1>
   <form method="post">
    <div class="txt_field">
     <input type="text" required>
     <span></span>
     <label>Username</label>
    </div>
    <div class="txt_field">
     <input type="password" required>
 <span></span>
<label>Password</label>
    </div>
    <div class="pass">Forgot Password? </div>
    <input type="submit" value="Login">
    <div class="signup_link">
     Not a member? <a href="#">Signup</a>
    </div>
   </form>
  </div>
</body>
</html>
```

6.3 HOME PAGE:

```
<!DOCTYPE html>

<html lang="en" dir="ltr">

  <head>

    <meta charset="utf-8">

   <! --------- <title>Responsive Navigation Menu</title>------>

    <link rel="stylesheet" href="home.css">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

 </head>

  <body>

    <nav>

        <div class="logo"> Resume Evaluation System</div>

        <input type="checkbox" id="click">

        <label for="click" class="menu-btn">

          <i class="fas fa-bars"></i>

        </label>

        <ul>

        <li><a class="active" href="#">HOME</a></li>

        <li><a href="HR.html">HR</a></li>

        <li><a href="user.html">USER</a></li>
```

```
    </ul>
  </nav>
  <div class="gopal">
<imgsrc="C:\Users\91891\Desktop\suraj2.jpg"alt="suraj"width="1520"
height="1100"></div>
 <div class="text-block">
  <h4>Resume Evaluation System</h4>
   <p>The project titled resume evaluation System is resume evaluation
```

system software for monitoring and controlling the transactions of user and hr and user in the resume system.

This study explored the application of interview robots on recruitment process. By adopting techniques including web crawling, text mining, and natural language processing, this study developed an effective system that matches job candidates with recruiters. Many clients come to me because they feel overwhelmed with the job search and are unsure how to position themselves as the executive leader that they are. It's not surprising since no one taught you how to market yourself. But it doesn't have to be this way. Confidently packaging your brilliance and showing up as the obvious choice doesn't have to be a struggle. Résumé screening is the process of determining whether a candidate is qualified for a role based his or her education, experience, and other information captured on their resume.

In a nutshell, it's a form of pattern matching between a job's requirements and the qualifications of a candidate based on their resume. A resume is a formal document that a job applicant creates to itemize their qualifications for a position. A resume is usually accompanied

by a customized cover letter in which the applicant expresses an interest in a specific job or company and draws attention to the most relevant specifics on the resume.

```
        </p>
        <footer class="gopal">
            1.silipa sahu
            2.k usha
            3.gopal sahu<br>
            4.Suraj panigrahy
            5.maheswara sahu
            6.sanu kumar sahu
            7.antaryami panigrahy
        </footer>
    </div>
  </body>
</html>
```

CHAPTER-7

SCREENSHOT

7.1 HR LOGIN:

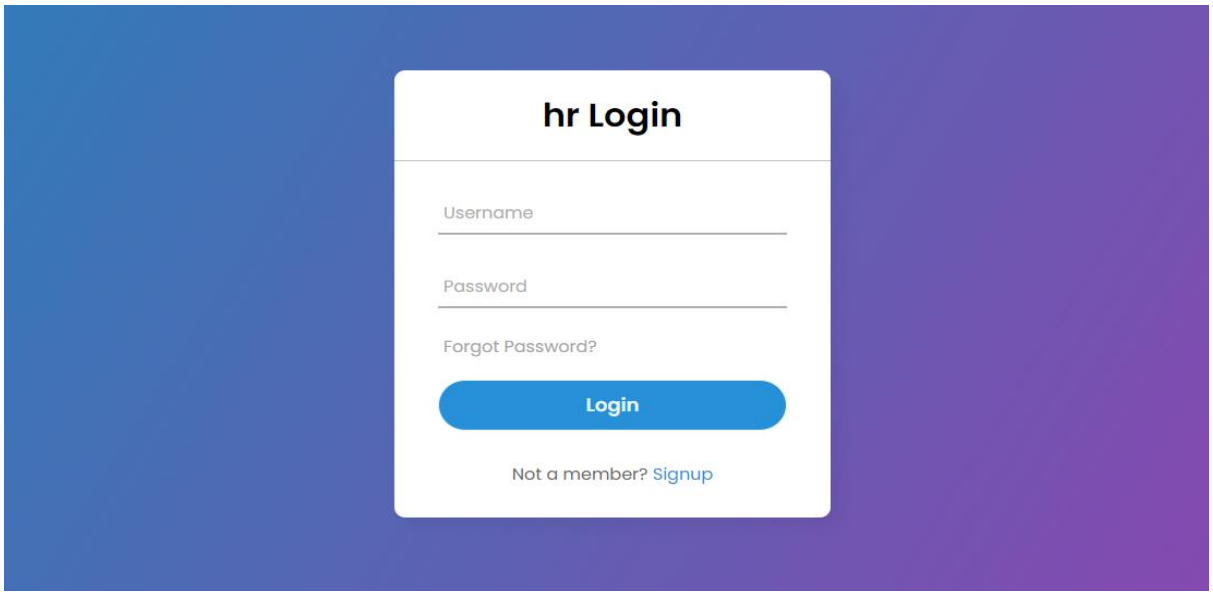


Figure7.1: hr login

7.2 USER LOGIN:

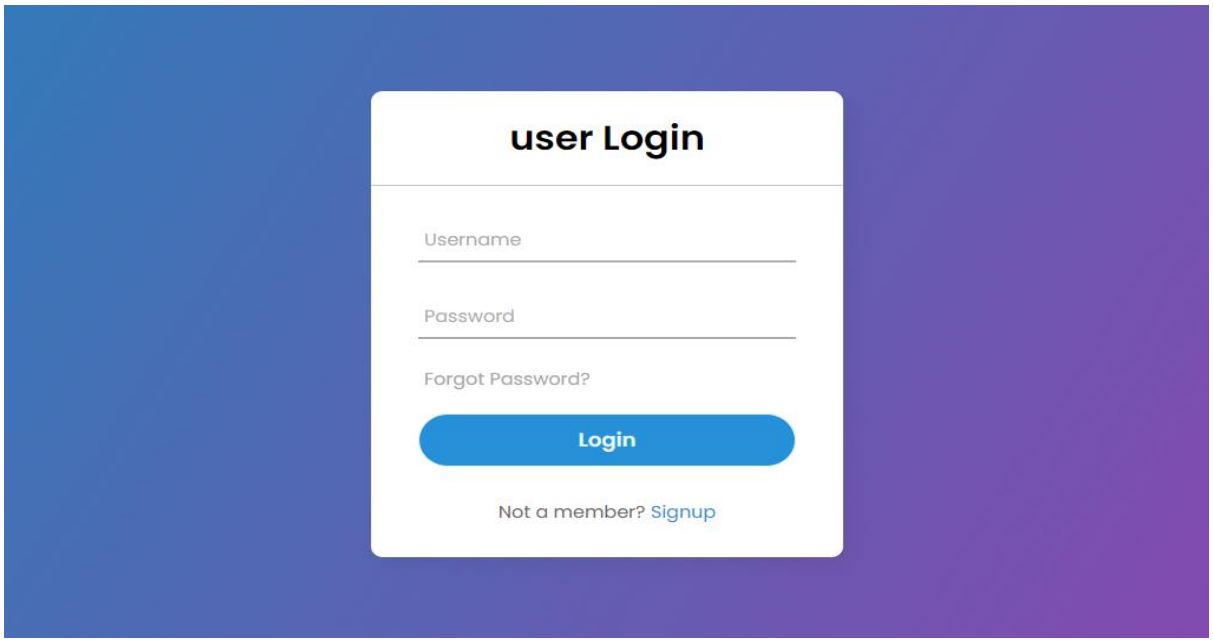


Figure7.2: user login

7.3 HOMEPAGE:

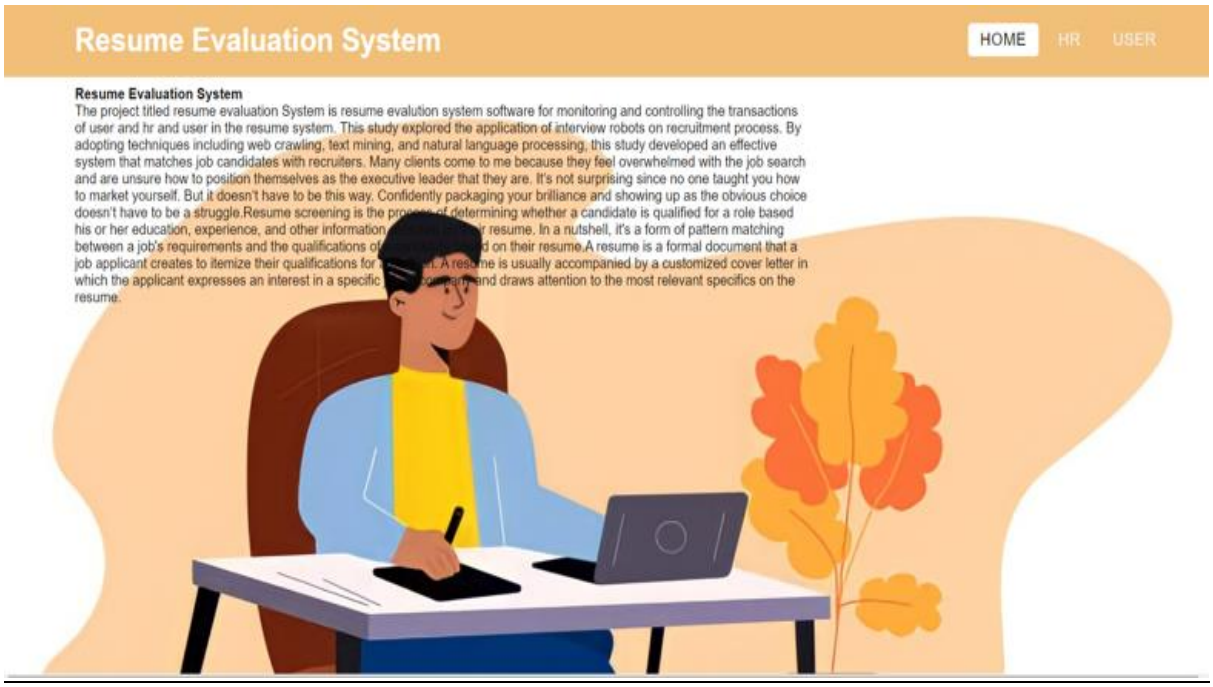


Figure7.3: home page

CHAPTER-8

TESTING

Software Testing is the process used to help identify the correctness, completeness, security, and quality of developed computer software. Testing is a process of technical investigation, performed on behalf of stakeholders, that is intended to reveal quality-related information about the product with respect to the context in which it is intended to operate. This includes, but is not limited to, the process of executing a program or application with the intent of finding errors. Quality is not an absolute; it is value to some person. With that in mind, testing can never completely establish the correctness of arbitrary computer software; testing furnishes a criticism or comparison that compares the state and behaviour of the product against a specification. An important point is that software testing should be distinguished from the separate discipline of Software Quality Assurance (SQA), which encompasses all business process areas, not just testing. At SDEI 3 levels of software testing is done at various SDLC phases.

UNIT TESTING: in which each unit (basic component) of the software is tested to verify that the detailed design for the unit has been correctly implemented

INTEGRATION TESTING: in which progressively larger groups of tested software components corresponding to elements of the architectural design are integrated and tested until the software works as a whole.

SYSTEM TESTING: in which the software is integrated to the overall product and tested to show that all requirements are met.

8.1TEST CASE:

8.1.1 POSITIVE TEST CASES:

TEST CASE 1: ADMIN LOGIN

Field	Input	Output	Remark
Username	admin	Successfully Login.	Test case working successfully.
Password	adminadmin		

Test Case 1: Admin Login

CASE 2: USER LOGIN

Field	Input	Output	Remark
Username	suraj	Successfully Login	Test case working successfully

Test Case 2: user Login

TEST CASE 3: HR LOGIN

Field	Input	Output	Remark
Username	suraj	Successfully Registered.	Test case working successfully.
Password	Suraj1999		
Email ID	suraj@gmail.com		

Test Case 3: hr Login

8.1.2 NEGATIVE TEST CASES:

TEST CASE 4: ADMIN LOGIN

Field	Input	Output	Remark
Username	admin	Password Incorrect.	Test case failed.
Password	jzadbc		

Test Case 4: Admin Login

TEST CASE 5: HR LOGIN

Field	Input	Output	Remark
Username	suraj	Password Incorrect.	Test case failed.
Password	Suraj2000		

Test Case 5: hr Login

CHAPTER-9

CONCLUSION

Resume evaluation system is an important process to post the job requirement and the job seeker can upload their resumes using this portal. This project analyses the job seeker resume and make the recruitment process easier using text mining and natural language processing techniques. The main goal of this portal is to attempt to produce the right graduates based on the industry needs using natural language processing techniques. In future work, we can integrate video-based resume format to validate candidate communication and technical skills, which saves time and cost for the recruiter. Also in future, developing job portal as mobile application would have greater scope The field of artificial intelligence is gaining momentum especially in this new era of advanced computing. Various fields such as Assessments and Analysis are now taking advantage of this field to optimize the analysis activities. The system not only saves businesses personnel costs but also mitigates the limitations of time and space using the Internet. It produces a final report that is delivered to both the job recruiting company and job applicant and can serve as a reference for both parties to understand each other's needs, thereby facilitating achievement of a win-win situation.

CHAPTER-10

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