# A MINOR PROJECT REPORT ON JOB PORTAL

Submitted in partial fulfillment of the requirement

for the award of the degree of

#### **BACHELOR OF TECHNOLOGY**

#### IN DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

BY

ANGOTH THARUN 21P61A0510

ANKARLA SANJAY 21P61A0511

Under the esteemed guidance of

G.ARUN

**Assistant Professor** 

Dept. of CSE



#### VIGNANA BHARATHI INSTITUTE OF TECHNOLOGY

(A UGC Autonomous Institution, Approved by AICTE, Affiliated to JNTUH, ccredited by NBA & NAAC)

Aushapur (V), Ghatkesar (M), Medchal(dist)

MAY 2024-2025



# Department of Computer Science and Engineering DECLARATION

We, A.Tharun, A.Sanjay bearing hallticket numbers 21P61A0510, 21P61A0511, hear by declare that the minor project report entitled "JOB PORTAL" under the guidance of **DR.N.Swapana**, **G.Arun**, Department of Computer Science And Engineering, Vignana Bharathi Institute of Technology, Hyderabad, have submitted to Jawaharlal Nehru Technological University Hyderabad, Kukatpally, in partial fulfillment of the requirements for the award of the degree of Bachelor of Technology in Computer Science And Engineering.

This is a record of bonafide work carried out by us and the results embodied in this project have not been reproduced or copied from any source. The results embodied in this project report have not been submitted to any other university or institute for the award of any other degree or diploma.

By:

ANGOTH THARUN (21P61A0510) ANKARLA ANJAY (21P61A0511)



#### **DEPARTMENT**

**OF** 

# COMPUTER SCIENCE AND ENGINEERING CERTIFICATE

This is to certify that the minor project titled "JOB PORTAL" submitted by Angoth Tharun (21p61a0510), Ankarla Sanjay (21P61A0511) in B. Tech IV-I semester Computer Science and Engineering is a record of the bonafide work carried out by them.

The results embodied in this report have not been submitted to any other University for the award of any degree.

**INTERNAL GUIDE** 

HEAD OF THE DEPARTMENT

G. Arun (Associate Professor) Dr.Dara.Raju (Professor)

**EXTERNAL EXAMINER** 

# **ACKNOWLEDGEMENTS**

We are extremely thankful to our beloved Chairman, **Dr. N. Goutham Rao** and secretary, **Dr. G. Manohar Reddy** who took keen interest to provide us the infrastructural facilities for carrying out the project work. Self-confidence, hard work, commitment and planning are essential to carry out any task. Possessing these qualities is sheer waste, if an opportunity does not exist. So, we whole-heartedly thank **Dr. P. V. S. Srinivas** Professor & Principal, **and Dr.Dara.Raju**, Head of the Department, Computer Science And Engineering for their encouragement, support and guidance in carrying out the project.

We would like to express our indebtedness to the project coordinator, **Mr.G. Arun**, Associate Professor, Department of CSE for her valuable guidance during the course of project work.

We thank our Project Guide, **G.Arun**, Associate Professor, for providing us with an excellent project and guiding us in completing our major project successfully.

We would like to express our sincere thanks to all the staff of Electronics And Communication Engineering, **VBIT**, for their kind cooperation and timely help during the course of our project. Finally, we would like to thank our parents and friends who have always stood by us whenever we were in need of them.

## **ABSTRACT**

This project aims to develop a comprehensive online job portal designed to streamline the recruitment process for both job seekers and employers. The platform will provide a user-friendly interface for job seekers to create and manage their profiles, search for relevant job openings, and apply directly to potential employers. For employers, the portal will offer tools to post job vacancies, screen resumes, schedule interviews, and track the entire hiring process efficiently. The project has been planned to be having the view of distributed architecture, with centralized storage of the database. The application for the storage of the data has been planned. Using the constructs of MS-SQL Server and all the user interfaces have been designed using the ASP.Net technologies. The database connectivity is planned using the "SQL Connection" methodology. The standards of security and data protective mechanism have been given a big choice for proper usage. The application takes care of different modules and their associated reports, which are produced as per the applicable strategies and standards that are put forwarded by the administrative staff.

Key Words: Opency, Java script, Html, Sql, Local binary patters

#### **DEPARTMENT**

#### **OF**

## COMPUTER SCIENCE AND ENGINEERING

#### **VISION**

To become, a Center for Excellence in Computer Science and Engineering with a focused Research, Innovation through Skill Development and Social Responsibility.

#### **MISSION**

- **DM-1:** Provide a rigorous theoretical and practical framework across *State-of-the-art* infrastructure with an emphasis on *software development*.
- **DM-2**: Impact the skills necessary to amplify the pedagogy to grow technically and to meet *interdisciplinary needs* with collaborations.
- **DM-3:** Inculcate the habit of attaining the professional knowledge, firm ethical values, *innovative research* abilities and societal needs.

## PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- **PEO 1: Domain Knowledge:** Synthesize mathematics, science, engineering fundamentals, pragmatic programming concepts to formulate and solve engineering problems using prevalent and prominent software.
- **PEO-02: Professional Employment:** Succeed at entry- level engineering positions in the software industries and government agencies.
- **PEO-03: Higher Degree:** Succeed in the pursuit of higher degree in engineering or other by applying mathematics, science, and engineering fundamentals.
- **PEO-04:** Engineering Citizenship: Communicate and work effectively on team-based engineering projects and practice the ethics of the profession, consistent with a sense of social responsibility.
- **PEO-05:** Lifelong Learning: Recognize the significance of independent learning to become experts in chosen fields and broaden professional knowledge.

## **PROGRAM OUTCOMES (POs)**

- **PO-01:** Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- **PO-02:** Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO-03:** Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and cultural, societal, and environmental considerations.
- **PO-04:** Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- **PO-05:** Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- **PO-06:** The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- **PO-07:** Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- **PO-08:** Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- **PO-09**: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- **PO-10:** Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO-11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to

one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**PO-12:** Life-long learning: Recognize the need for, and have the preparation and abilityto engage in independent and life-long learning in the broadest context of technological change.

## **PROGRAM SPECIFIC OUTCOMES (PSOs)**

**PSO-01:** Ability to explore emerging technologies in the field of computer science and engineering.

**PSO-02:** Ability to apply different algorithms indifferent domains to create innovative products.

**PSO-03:** Ability to gain knowledge to work on various platforms to develop useful and secured applications to the society.

**PSO-04:** Ability to apply the intelligence of system architecture and organization in designing the new era of computing environment.

Substantial/High	3
Moderate/Medium	2

## CO - PSO Correlation Matrix

COs			PSOs	
COs	PSO1	PSO2	PSO3	PSO4
CO1		3	2	
CO2		3	2	
CO3		3	2	
CO4		3	2	
CO5		3	2	

# CO - PO Correlation Matrix

CO		POs   PO2   PO3   PO4   PO5   PO6   PO7   PO8   PO9   PO10   PO11   PO12										
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	2	2			2	3	3	3	3
CO2	2	2	2	2	2			2	3	3	3	3
CO3	2	2	2	2	2			2	3	3	3	3
CO4	2	2	3	2	2			2	3	3	3	3
CO5	2	2	2	2	2			2	3	3	3	3

## **Project Outcomes (PROs)**

CO	Course Outcome Statement	Taxonomy
No.	Course Outcome Statement	Level
1	Identify challenging practical problems, solutions of Electronics and Communication Engineering field.	APPLY
2	Analyse the various methodologies and technologies and discuss with team for solving the problem.	ANALYZE
3	Apply technical knowledge and project management skills for solving the problem.	APPLY
4	Design and Development of technical projects as an individual or in a team	CREATE
5	Prepare the project reports and give proper explanation during the presentation and demonstration.	CREATE

# TABLE OF CONTENTS

CONTENTS CERTIFICATE	Page No
CANDITATE DECLARATION	i ii
ACKNOWLEDGEMENT	iii
ABSTRACT	iv
Chapter 1: Introduction	1
1.1 Brief Overview of Work	1
1.2 Objective	1
1.3 Scope	1
1.4 Project Modules	2
1.4.1 Registration	2
1.4.2 Search	2
1.4.3 Job Post	2
1.4.4 Manage Account	2
1.5 Literature Survey	2-3
1.6 Project Requirements	4
1.6.1 Hardware	4
1.6.2 Software	4
1.7 Applications	4-5
Chapter 2: System Analysis	6
2.1 Project Feasibility Study	6
2.1.1 Technical Feasibility	6
2.1.2 Economical Feasibility	6
2.1.3 Operational Feasibility	6
2.2 Project Timeline Chart	7
2.3 Detailed Module Description with all Functionalities	7

2.3.1Registration	7
2.3.2 Job Post	8
2.3.3 Search	8
2.3.4 Manage Account	8
Chapter 3: System Design	9
3.1 Use Case Diagrams	9
3.2 Data Flow Diagrams	10-11
3.3 Class Diagram	12
3.4 Entity Relationship Diagram	13
3.5 Activity Diagram	14-15
3.6 Data Dictionary	16
3.6.1 User Table	16
3.6.2 Job Table	16
3.6.3 Appliction Table	17
3.6.4 Resume Table	17
3.6.5 Feedback Table	17
3.6.6 Notification Table	18
Chapter 4: Implementation and Testing	19
4.1 User Interface and snapshots	19
4.2 Test Cases and Rest	19-20
Chapter 5:Existing Method	21
5.1 Introduction	21
5.2 Existing Method Block diagram	21
5.3 Imitations of this Method	22
Chapter 6:Proposed Method	23
	2.3.1Registration 2.3.2 Job Post 2.3.3 Search 2.3.4 Manage Account Chapter 3: System Design 3.1 Use Case Diagrams 3.2 Data Flow Diagrams 3.3 Class Diagram 3.4 Entity Relationship Diagram 3.5 Activity Diagram 3.6 Data Dictionary 3.6.1 User Table 3.6.2 Job Table 3.6.3 Appliction Table 3.6.4 Resume Table 3.6.5 Feedback Table 3.6.6 Notification Table Chapter 4: Implementation and Testing 4.1 User Interface and snapshots 4.2 Test Cases and Rest Chapter 5: Existing Method 5.1 Introduction 5.2 Existing Method Block diagram 5.3 Imitations of this Method Chapter 6: Proposed Method

6.1 To Overcome the limitations in Existing Method	23-24
6.2 Tools Required	24
6.3 Block Diagram	25
6.4 Advantages of this Project	26-27
6.5 Limitations of this Project	27-28
7.Chapter	29
Conclusion & FUTURE SCOPE	29
References	30

# **List of Figures**

S.No	Figure Name	Page no
1	Figure 1- Timeline Char	7
2	Figure 3.1-Use Case Diagrams	9
3	Figure 3.2.1 Context-Level (Level 0) DFD	9
4	Figure 3.2.2 DFD 1 level Diagram	10
5	Figure 3.2.2 Level 1 DFD	11
6	Figure 3.3 Class Diagram	12
7	Figure 3.4 Entity Relationship Diagram	13
8	Figure 3.5.1 Activity Diagram Employer	13
9	Figure 3.5.2 Employee	14
10	Figure 3.5.3 Admin	15
11	Figure 4.1 User Interface and Snapshots	19
12	Figure 4.2 Test and Result	19
13	Figure 4.3 Login Admin Job Portal	20
14	Figure 5.2 Existing Method Block Diagram	21
15	Figure 6.3 Block Diagram	25

# **List of Tables**

Table No	Name of the Table	Page No
1	<b>User Table</b>	16
2	Job Table	16
3	<b>Application Table</b>	17
4	Resume Table	17
5	Feedback Table	17
6	<b>Notification Table</b>	18

#### **CHAPTER 1**

#### Introduction

#### 1.1 Brief Overview of Work

Now a day, we know that searching of jobs is so difficult in proficient areas the portal developed for the providing the simple and good job searching. With the help of this portal easily the job seeker can submit their resume and get the lot of opportunity of the job related to their profile. And by this website the companies or employer can also find the good and well profiled resume.

## 1.2 Objective

The online job Portal System that is to be developed provides the members with jobs information, online applying for jobs and many other facilities. This system provides service to the job applicants to search for working opportunities. Job Portal will allow job provider to establish one to one relationships with candidates. This Portal will primarily focus on the posting and management of job vacancies. This system is designed such that ultimately all vacancies will be posted online and would offer employers the facilities to post their vacancies online. It helps to review and manage the resulting applications efficiently through the web. Employer can also find the resume according to key skill in very less amount of time.

## 1.3 Scope

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

## 1.4 Project Modules

## 1.4.1 Registration

Employee or Employer can register with valid details like contact details, experience details, profile details.

#### **1.4.2 Search**

Employee Can Search job according to their interest. And also apply for that job. Employer search candidates for their requirements using keyword. Employer also can communicate with employee for their any other query or information via send message.

#### 1.4.3 Job Post

Employer post job for their organization. And include job vacancy, salary details, working hours, designation details, experienced details.

#### 1.4.4 Manage Account

Employee can also delete his/her account anytime. Admin Can Manage Employee and Employer Details. Admin observed Users Action like job posting, candidate details false or not.message.

## 1.5 Literature Survey

## 1.5.1 Enhancing Job Portals with AI-Based Resume Screening

Description: Explores how AI algorithms analyze and rank resumes based on job requirements, reducing manual effort in candidate shortlisting.

## 1.5.2. Recommendation Systems in Job Portals

Description: Reviews techniques for personalized job recommendations using collaborative filtering, content-based filtering, and hybrid approaches.

## 1.5.3. Big Data Analytics in Job Market Trend Prediction

Description: Discusses the use of big data to identify industry trends, salary benchmarks, and in-demand skills, enhancing decision-making for employers and job seekers.

#### 1.5.4. Chatbots in Recruitment Platforms

Description: Investigates the role of AI-powered chatbots in streamlining candidate interactions, including answering FAQs and scheduling interviews.

## 1.5.5 Machine Learning for Job-Matching Algorithms

Description: Examines ML models used to match job seekers with relevant positions based on skills, experience, and preferences.

# 1.5.6. Natural Language Processing (NLP) for Job Description and Resume Parsing

Description: Surveys NLP techniques for extracting key information from resumes and job descriptions to improve compatibility analysis.

#### 1.5.7. Gamification in Job Portals for Engagement and Skill Assessment

Description: Explores gamification strategies, such as quizzes and challenges, to assess candidate skills and enhance user engagement.

#### 1.5.8. Blockchain Technology for Transparent Recruitment Processes

Description: Reviews the potential of blockchain in creating secure, tamper-proof records of candidate credentials and employment history.

#### 1.5.9 Cloud-Based Solutions for Scalable Job Portals

Description: Analyzes the use of cloud computing for hosting job portals, focusing on scalability, reliability, and cost-effectiveness.

#### 1.5.10. Remote Hiring Through Video Interviewing Platforms

Description: Surveys the integration of video interview tools into job portals to facilitate remote recruitment and candidate assessment.

## 1.5.11. Sentiment Analysis for Candidate and Employer Reviews

Description: Investigates sentiment analysis techniques to evaluate feedback on job roles, companies, and hiring experiences.

## 1.5.12. Mobile Job Portals: Trends and Usability Challenges

Description: Reviews the development of mobile-friendly job portals, highlighting design considerations and user behavior trends.

## 1.6 Project Requirements

## 1.6. Hardware Requirements

**1.RAM:** Min of 4 GB

2.Hard Disk: 256 GB

**3.Operating System:** Windows 8.1/10/11/Linux/MacOs

**4. Webcam:** A functioning webcam with at least 720p resolution for capturing video input.

## 1.6. Software Requirements

**1. Programming Languages:** Python 3.7

2. Libraries Used: Opency-Python, Mediapipe, Pyautogui.

**3. Integrated Development Environment (IDE):** Visual Studio Code, PyCharm, Jupyter Notebook, or any text editor supporting Python.

## 1.7Applications

#### For Job Seekers:

Job Search: Users can search for jobs based on keywords, location, industry, and job type.

Profile Creation: Job seekers can create detailed profiles, including their resume, skills, experience, and certifications.

Job Application: Users can apply for jobs directly through the portal, often with a single click.

Job Alerts: Job seekers can set up alerts to receive notifications for new jobs matching their criteria.

## For Employers:

Job Posting: Employers can post job openings with detailed descriptions, requirements, and deadlines.

Candidate Screening: Employers can review resumes and applications, filter candidates based on specific criteria, and schedule interviews.

Talent Pool: Employers can create talent pools of potential candidates for future hiring needs.

Employer Branding: Companies can use the portal to showcase their employer brand and attract top talent.

#### **Additional Features:**

Resume Builder: A tool to help job seekers create professional resumes.

Interview Scheduling: A feature to schedule interviews between employers and candidates.

Skill Assessment Tests: Employers can conduct online tests to assess candidates' skills.

Video Interviews: A platform for conducting video interviews remotely

#### **Technical Considerations:**

User-Friendly Interface: A clean and intuitive interface for both job seekers and employers.

Robust Search Functionality: Efficient search algorithms to help users find relevant jobs and candidates.

Secure Data Storage: Strong security measures to protect user data.

Mobile Optimization: A mobile-friendly design for easy access on smartphones and tablets.

Integration with HR Systems: Integration with existing HR systems for seamless data transfer.

#### **CHAPTER 2**

## **Project Feasibility Study**

## 2.1.1 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.

#### 2.1.2 Economical Feasibility

Economical 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.

## 2.1.3 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 websupport 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

# 2.2 Project Timeline Chart

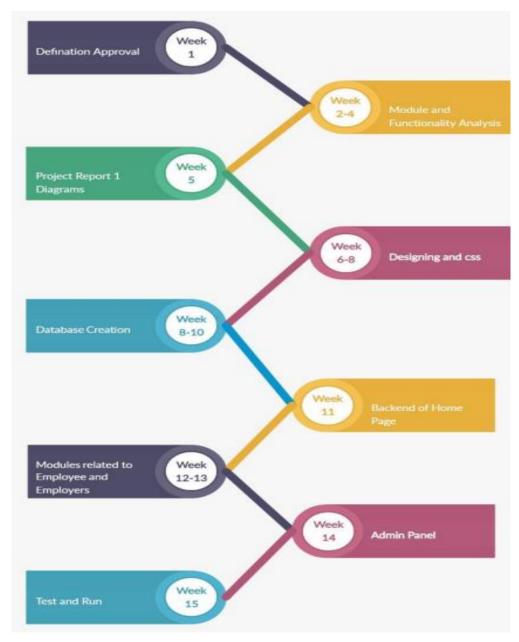


Figure 1- Timeline char

# 2.3 Detailed Module Description with all Functionalities

## 2.3.1 Registration

In the registration module job seeker have to include all the details like personal details, contact details, education details like school, graduation, post-graduation, course certification details etc. Also job seeker has to add his experience details, job requirements and uploading resume and photo. While job recruiter has to add his contact details and organization details for the registration and upload company logo and profile.

#### 2.3.2 Job Post

Employer can post a job by providing all the job details like qualifications details, requirements for the job, designation details, job salary details and also provide type of jobs. They also can delete the jobs whenever they want. After successfully posted a job it will be available for all the job seekers who are searching for a job. And it will be available on home page as recently posted job.

#### 2.3.3 Search

Employee Can Search job according to their interest. And also apply for that job or they can add into wishlist for future whenever they find for job for that company then they easily find out company from wishlist. Employer search candidates for their requirements using keyword like technology. And also can communicate with employee for their any other query or information via send message and also employer see the resume of applicants.

## 2.3.4 Manage Account

While employers can manage their job postings. And providing all the job details like qualifications details, requirements for the job, designation details, job salary details and also provide type of jobs. They also can delete the jobs whenever they want. While employee can manage their wishlist, applied for job and also getting full details of employer. Employees can delete their account anytime. Also they can apply for the different jobs according to their interests

## **CHAPTER 3**

# **System Design**

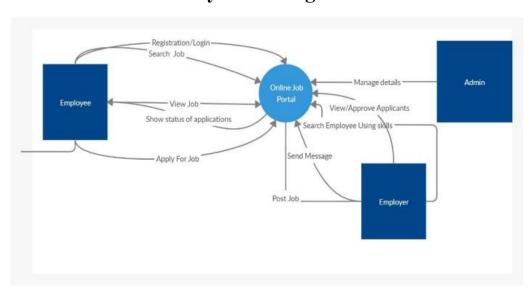
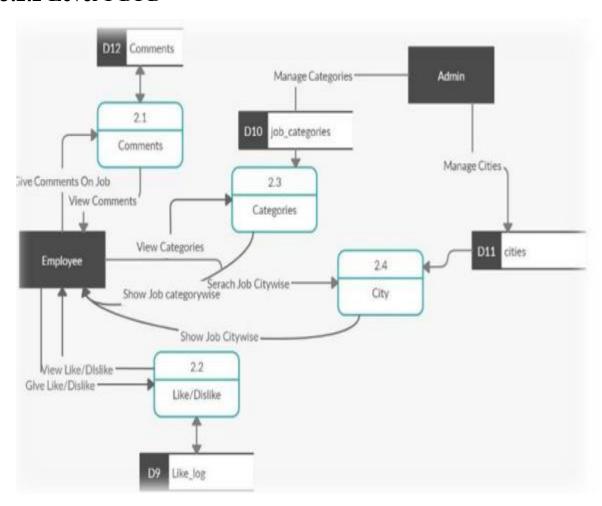
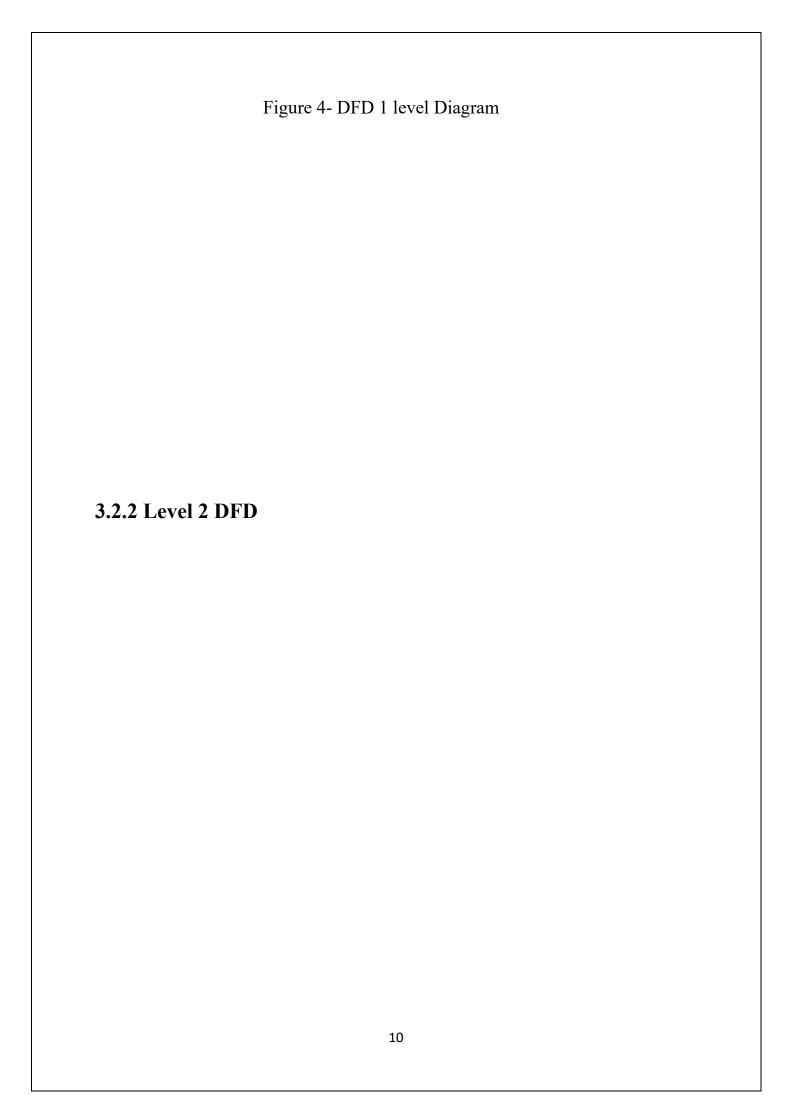


Figure 3- DFD 0 level Diagram

## **3.2.2 Level 1 DFD**





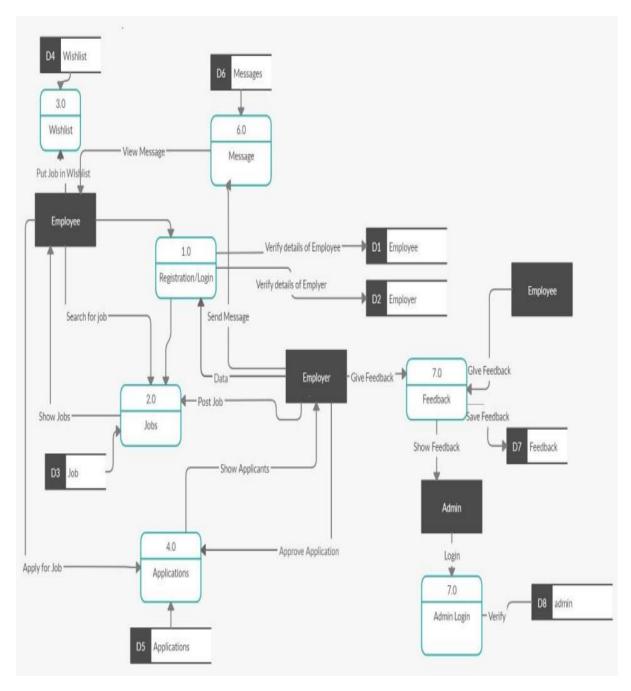


Figure 5- DFD 2 level Diagram

# 3.3 Class Diagram

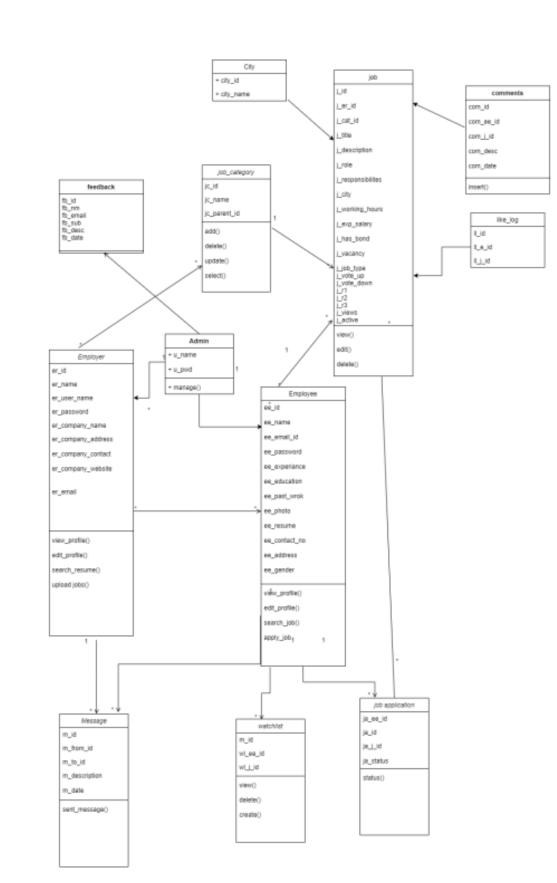


Figure 6- Class Diagram

# 3.4 Entity Relationship Diagram

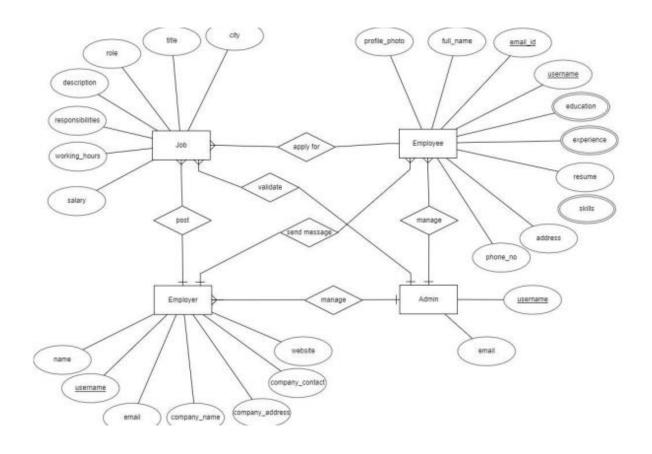


Figure 7- ER Diagram

# 3.5 Activity Diagram

## 3.5.1 Employer

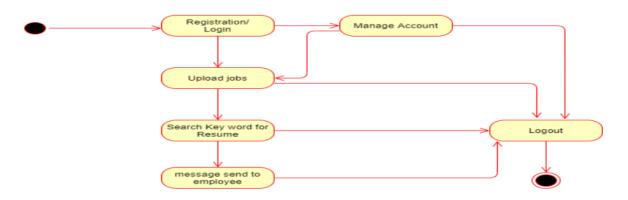


Figure 8- Employer Activity Diagram

# 3.5.2 Employee

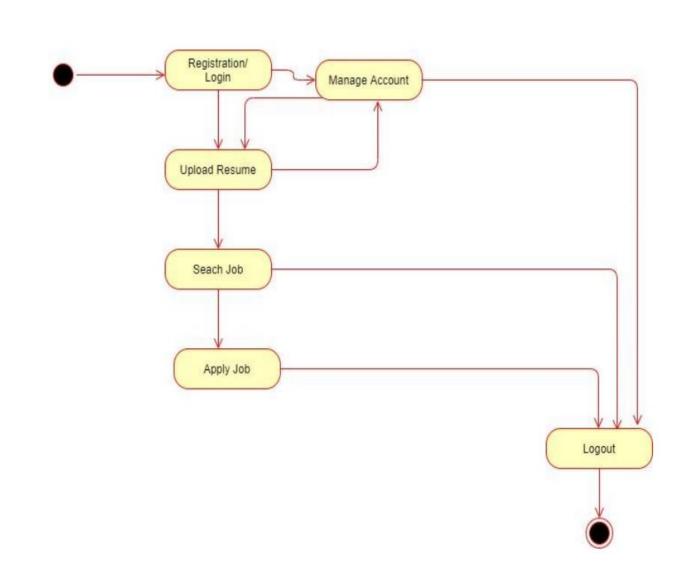


Figure 9- Employee Activity Diagram

# 3.5.3 Admin

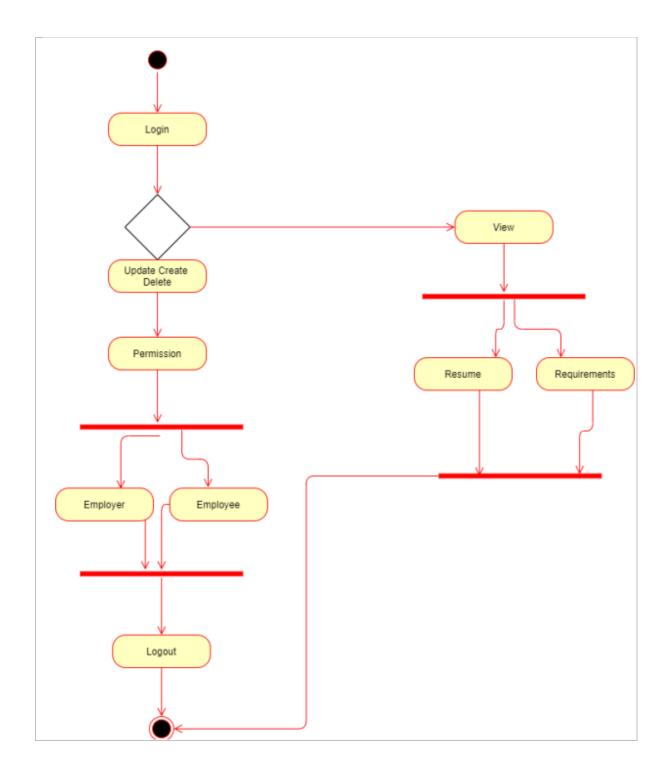


Figure 10- Admin Activity Diagram

# 3.6 Data Dictionary

**Table 1- User table** 

Table 1:	
Name:	employer
<b>Description:</b>	Records information regarding employer

Descriptio	Records information regarding employer				
Fields					
Sr. No.	Field Name	Field Type	Constraints	Description	
1	er_id	int	primary key	Holds unique id of employer	
2	er_full_name	varchar(50)	NULL	Holds full name of the employer	
3	er_user_name	varchar(50)	NULL	Holds user name of the employer	
4	er_email	varchar(50)	NULL	Holds e-mail id of the employer.	
5	er_pwd	varchar(50)	NULL	Holds password of employer	
6	er_comp_name	Varchar(50)	NULL	Holds company name.	
7	er_comp_address t	Text	NULL	Holds company address.	

# **Table 2 –Job Table**

Attribute	Data Type	Description
job_id	INT (Primary Key)	Unique identifier for each job.
employer_id	INT (Foreign Key)	References the user_id of the employer posting the job.
title	VARCHAR(200)	Job title or designation.
description	TEXT	Detailed description of the job.
required_skills	TEXT	List of required skills for the job.
experience_level	ENUM ('Entry', 'Mid', 'Senior')	Experience level required for the job.
location	VARCHAR(100)	Job location (e.g., city, remote).
salary_range	VARCHAR(50)	Salary range offered for the position.
posted_at	TIMESTAMP	The date and time the job was posted.
status	ENUM ('Active', 'Closed')	Current status of the job posting.

**Table 3- Application Table** 

Attribute	Data Type	Description
application_id	INT (Primary Key)	Unique identifier for each application.
job_id	INT (Foreign Key)	References the <code>job_id</code> for the job being applied to.
job_seeker_id	INT (Foreign Key)	References the user_id of the job seeker.
resume_url	TEXT	URL of the resume uploaded by the job seeker.
cover_letter	TEXT	Optional cover letter text provided by the job seeker.
applied_at	TIMESTAMP	The date and time of the application.
status	ENUM ('Pending', 'Reviewed', 'Accepted', 'Rejected')	Application status.

## **Table 4- Resuem Table**

Attribute	Data Type	Description
resume_id	INT (Primary Key)	Unique identifier for each resume.
job_seeker_id	INT (Foreign Key)	References the user_id of the job seeker.
file_url	TEXT	URL of the resume file uploaded by the job seeker.
created_at	TIMESTAMP	The date and time the resume was uploaded.

# **Table 5- Feedback Table**

Attribute	Data Type	Description
feedback_id	INT (Primary Key)	Unique identifier for each feedback.
user_id	INT (Foreign Key)	References the user_id of the reviewer.
job_id	INT (Foreign Key)	References the <code>job_id</code> being reviewed.
rating	INT	Rating provided by the user (e.g., 1 to 5).
comments	TEXT	Additional feedback comments.
created_at	TIMESTAMP	The date and time the feedback was submitted.

# **Table 6-Notification Table**

Attribute	Data Type	Description
notification_id	INT (Primary Key)	Unique identifier for each notification.
user_id	INT (Foreign Key)	References the user_id of the recipient.
message	TEXT	Notification message content.
is_read	BOOLEAN	Whether the notification has been read.
created_at	TIMESTAMP	The date and time the notification was created.

## **CHAPTER 4**

## **Implementation and Testing**

#### 4.1 User Interface and Snapshots

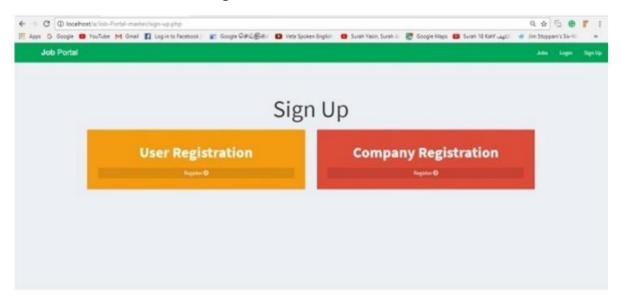


Fig 1:Sign Up

It seems like you want to create a job portal or need help with signing up for a job portal. Could you clarify if you need assistance with building a job portal website or if you're asking how to sign up on an existing job platform like LinkedIn, Indeed, or another service

#### 4.2 Test and Result

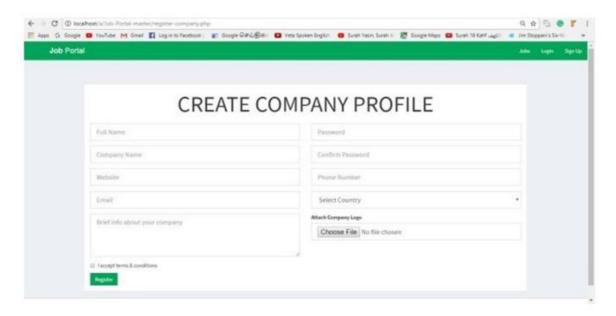


Fig 2:Create Company Profile

Creating a profile on a job portal involves a series of steps that enable job seekers or employers to set up their accounts and manage their information. Here's a detailed guide on how to create a profile for a job portal:

#### **LOGIN ADMIN PAGE**



Fig 3:Job portal

Here is the visual representation of a modern job portal interface showcasing the key functionalities for job seekers and employers. Let me know if you need further enhancements or details.

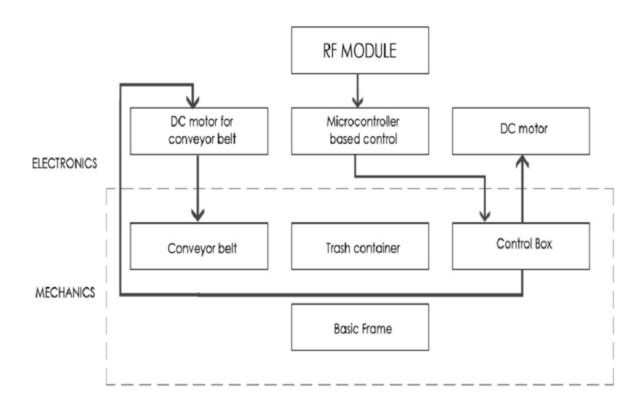
#### **CHAPTER 5**

#### **EXISTING METHOD**

#### **5.1 Introduction:**

Job portals have revolutionized the way employers and job seekers connect. They employ a variety of methods to streamline the recruitment process and enhance user experience. Here are some of the existing methods:

## 5.2 Existing Method Block Diagram



A block diagram is a graphical representation of a system – it provides a functional view of a system. Block diagrams give us a better understanding of a system's functions and help create interconnections within it. Block diagrams derive their name from the rectangular elements found in this type of diagram.

#### **5.3**imitations of this Method:

#### 1. Overwhelming Volume of Applications:

Job portals often attract a large number of applications, making it challenging for recruiters to sift through and identify qualified candidates.

This can lead to information overload and increased workload for recruiters.

#### 2. Quality of Applications:

The quality of applications can vary widely, with many candidates submitting generic resumes or incomplete applications.

This can make it difficult for recruiters to assess a candidate's suitability for a specific role.

#### 3. Lack of Personal Connection:

Online applications often lack the personal touch of traditional recruitment methods, such as face-to-face interviews.

This can make it difficult to assess a candidate's soft skills, communication abilities, and cultural fit.

## 4. Potential for Misrepresentation:

Some candidates may misrepresent their skills or experience on their resumes or profiles.

This can lead to hiring mistakes and wasted time and resources.

#### 5. Technical Issues:

Technical glitches or system failures can disrupt the recruitment process and frustrate both job seekers and employers.

This can lead to delays in the hiring process and negative experiences for users.

#### 6. Limited Reach for Niche Roles:

Job portals may not be effective for niche roles or specialized skills, as they may not attract a sufficient number of qualified candidates.

## 7. Privacy Concerns:

Job portals collect and store personal information about job seekers, raising concerns about data privacy and security.

Data breaches or unauthorized access can lead to serious consequence

#### **CHAPTER 6**

#### PROPOSED METHOD

#### **6.1 To overcome the limitations in Existing Method:**

## 1.Enhancing User Experience

AI-Powered Matching: Utilize AI algorithms to match job seekers with relevant job postings based on skills, experience, and preferences.

Personalized Job Recommendations: Employ machine learning to recommend tailored job opportunities to each user.

Intuitive User Interface: Design a user-friendly interface that is easy to navigate and visually appealing.

Mobile Optimization: Ensure the platform is accessible and functional on mobile devices.

## 2.Improving Candidate Screening and Selection

Skill-Based Matching: Focus on matching candidates based on specific skills and competencies rather than just keywords.

Video Interviews: Incorporate video interviewing tools to assess candidates' communication skills and cultural fit.

Gamified Assessments: Use gamified assessments to evaluate candidates' problem-solving, critical thinking, and other cognitive abilities.

AI-Powered Resume Parsing: Automatically parse resumes and identify key information to streamline the screening process.

## 3. Enhancing Employer-Candidate Interaction

Real-time Chat: Implement real-time chat features to facilitate direct communication between employers and candidates.

Virtual Career Fairs: Organize virtual career fairs to connect employers with a large pool of potential candidates.

Employer Branding Tools: Provide tools for employers to create compelling company profiles and showcase their employer brand.

## 4. Addressing Privacy and Security Concerns

Robust Security Measures: Implement strong security measures to protect user data, such as encryption, firewalls, and regular security audits.

Transparent Data Practices: Clearly communicate data privacy policies and practices to build trust with users.

Compliance with Data Protection Regulations: Adhere to relevant data protection regulations, such as GDPR and CCPA.

#### 5.Leveraging Emerging Technologies

Blockchain Technology: Utilize blockchain to ensure the security and integrity of job postings and applications.

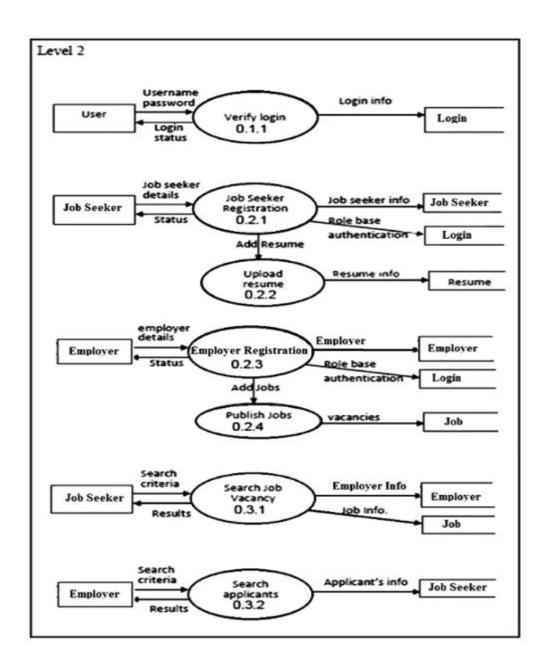
Virtual Reality (VR) and Augmented Reality (AR): Explore VR and AR for immersive job simulations and virtual office tours.

Internet of Things (IoT): Integrate IoT devices to track real-time job market trends and provide personalized insights.

## **6.2 Tools Required**

- 1. HTML, CSS, and JavaScript
- 2. Python
- 3. Django
- 4. MySQL
- 5. MongoDB
- 6.5JUnit

## 6.3 Block Diagram:



## 6.4 Advantages of this Project

#### 1.Benefits for Job Seekers:

Easy Access to Job Opportunities: Job portals provide a centralized platform to search and apply for jobs from various companies.

#### 2. Efficient Job Search:

Advanced search filters and personalized job recommendations help job seekers find relevant opportunities quickly.

#### 3. Career Guidance and Resources:

Many job portals offer career advice, resume tips, and other resources to help job seekers improve their job search.

#### **4. Networking Opportunities:**

Job portals can connect job seekers with industry professionals and potential employers.

#### **5.Remote Work Opportunities:**

These portals can facilitate finding remote and flexible work arrangements.

## **6.Benefits for Employers:**

Efficient Recruitment Job portals streamline the recruitment process by automating tasks like job posting, resume screening, and scheduling interviews.

#### 7. Wider Talent Pool:

Employers can reach a larger pool of potential candidates from diverse backgrounds and locations.

## 8.Improved Employer Branding:

A well-designed job portal can enhance a company's employer brand and attract top talent.

## 9.Cost-Effective Hiring:

By reducing recruitment costs associated with traditional methods like print advertising and agency fees.

## 10.Data-Driven Insights:

Job portals can provide valuable data on recruitment trends, candidate behavior, and hiring metrics.

#### **Overall Benefits:**

#### 1.Faster Time-to-Hire:

By streamlining the recruitment process, job portals can reduce the time it takes to fill vacancies.

#### 2.Improved Candidate Experience:

A user-friendly job portal can provide a positive experience for job seekers, leading to increased brand loyalty.

#### 3. Enhanced Employer-Candidate Matching:

Advanced algorithms can match candidates with the right job opportunities based on skills, experience, and preferences.

## **4.**Greater Transparency and Efficiency:

Job portals can improve transparency in the recruitment process and reduce bias.

#### 5. Global Reach:

Job portals can help companies recruit talent from around the world.

## 6.5 Limitations of this Project

#### For Job Seekers:

## 1. Overwhelming Number of Job Postings:

The sheer volume of job postings can be overwhelming, making it difficult to identify relevant opportunities.

#### 2. Ineffective Search Filters:

Sometimes, search filters may not be accurate or comprehensive, leading to irrelevant results.

## 3. Spam and Fraudulent Job Postings:

Job portals can be plagued by spam and fraudulent job offers, wasting job seekers' time and effort.

## **4.Privacy Concerns:**

Sharing personal information on job portals raises concerns about data privacy and security.

#### **5.Lack of Personal Touch:**

Online applications and automated screening processes can lack the personal touch of traditional recruitment methods.

## For Employers:

## **1.Low-Quality Applications**:

Many job portals receive a high volume of low-quality applications, making it difficult to identify qualified candidates.

#### **2.Inefficient Screening Process:**

Manual screening of resumes can be time-consuming and inefficient.

#### **3.**Costly Job Postings:

Some job portals charge high fees for job postings, especially for premium features.

## **4.Difficulty in Assessing Cultural Fit**:

Online applications and video interviews may not accurately assess a candidate's cultural fit with the company.

#### **CHAPTER 7**

## 7.1 CONCLUSION:

It can be concluded that this project of Online Job Portal was a real learning experience. The principles of software production were well implemented throughout the system. The project has been made as per as the given specifications. The Online Job Portal developed by us is purely based on ASP.NET platform. A Job Portal provides an efficient search for online information on job vacancies for Job Seekers. The main goal of this portal is to attempt to produce the right graduates based on the industry needs. However, it is important that be aware the Job Portals can never fulfill all the problems of jobless graduates.

#### **ACKNOWLEDGEMENT**

This work is a part of the Final Year Project of Terna Engineering College, affiliated to Mumbai University, Mumbai, in the Faculty of Computer Engineering.

#### 7.2 FUTURE SCOPE:

The job boards have to keep up with the shift in consumer base and market demands. There has been a significant change happening in the digital platform in terms of the content the generation consumes and demands due to differences in political, technological, and economic points of view. Therefore, the job boards must focus on offering value propositions that are quite different and relevant as well.

Recruiters and job seekers are experiencing an entirely automated process of searching and connecting. All job boards should be perfectly indexed, highly responsive, and exhaustive in job descriptions to establish their credibility and reliability. These features can be clubbed with technical upgrades like job tags supported with search engine optimisations and resume-matching criteria that are need of the hour.

#### REFERENCES

Literature review on online job portal

M Arvindhan, Bhanu Prakash Ande Data mining approach and security over Ddos attacks

ICTACT jouranl on soft computing, 2020.

www.w3school.com (it helps HTML, AJAX, JavaScript & etc) www.asp.netpractise.com

[1]Dr. K. Satheesh (Professor), A. Jahnavi, L. Iswarya, K. Ayesha, G. Bhanusekhar, K. Hanisha, "Resume Ranking based on Job Description using SpaCy NER model," International Research Journal of Engineering and Technology (IRJET), Volume: 07 Issue: 05 | May 2020.

- [2] Rajath V, Riza Tanaz Fareed, Sharada devi Kaganurmath, 2021, "Resume Classification and Ranking using KNN and Cosine Similarity," International Journal of Engineering Research & Technology (IJERT) Volume 10, Issue 08 (August 2021).
- [3] Tasnim, Z., Shamrat, F. M. J. M., Allayear, S. M., Ahmed, K., & Nobel, N. I. (2020). Implementation of an Intelligent Online Job Portal Using Machine Learning Algorithms. In Proceedings of the 2nd International Conference on Emerging Technologies in Data Mining and Information Security (IEMIS 2020), Kolkata, West Bengal, India, 2nd-4th July 2020.
- [4] Nikumbe, P., Samewar, A., Khan, A., & Tambe, D. (2022). Al Based Job Portal. International Research Journal of Modernization in Engineering Technology and Science, 04(04), 760.
- [5] Liang H, Chen S, Wu J. "Enhancing User Experience in AI-Powered Job Portals."
- [6] Gupta R, Sharma A, Singh M. "Ethical Considerations in Al-Based Recruitment Platforms."
- [7] Wang Y, Zhang Z, Li J. "User Privacy and Data Protection in Al-Driven Recruitment."