

A Mini Project Synopsis on
Job Navigo

T.E. - D.S Engineering

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CERTIFICATE

This to certify that the Mini Project report on Job Navigo has been submitted by Krish Jaswal (21107039), Shravani Kulkarni (21107063), Vedant Mayekar (22207007) and Khushi Kadam (21107031) who are a Bonafede students of A. P. Shah Institute of Technology, Thane, Mumbai, as a partial fulfilment of the requirement for the degree in CSE(DATA SCIENCE), during the academic year 2023-2024 in the satisfactory manner as per the curriculum laid down by University of Mumbai.

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Chapter 1

Introduction:

In the modern professional landscape, the role of technology has become increasingly pivotal in reshaping the way individuals seek employment opportunities and organizations source talent. This project introduces a comprehensive and user-centric job portal aimed at revolutionizing the job search and recruitment process. By leveraging cutting-edge technologies, intuitive design, and a robust framework, this platform addresses the challenges faced by both job seekers and employers. This report delves into the development, features, and significance of the job portal, highlighting its potential to bridge the gap between talent acquisition and talent exploration in a seamless and efficient manner.

In a rapidly evolving job market, the need for an efficient and tailored approach to job hunting and recruitment has never been more apparent. Traditional methods often lead to information overload for job seekers and a labor-intensive process for employers. This project's job portal aims to streamline this process by providing personalized job recommendations, advanced search filters, and a user-friendly interface that simplifies the entire job lifecycle. By harnessing the power of data analytics and artificial intelligence, the portal not only enhances the experience for users but also equips organizations with a powerful tool to identify the best-fit candidates for their vacancies. This report dives into the intricate functionalities and underlying technologies that drive this job portal, showcasing its potential to redefine how individuals navigate their careers and how companies discover top talent.

- **Tailored Recommendations:** The portal's personalized job suggestions cut through information overload, presenting users with opportunities that match their skills and goals, streamlining the job search.
- **Effortless Interaction:** By facilitating real-time messaging, interview scheduling, and application tracking, the platform optimizes communication between job seekers and employers, expediting the hiring process.

- **Internship Focus:** The project's commitment to internships equips students and graduates with practical experience, aligning with the goal of fostering skill development and preparing emerging professionals for the evolving job market.

With these additional points, the project's overarching aim of reshaping the job search and recruitment landscape through innovative technology, personalized features, and a focus on skill development is further emphasized. This comprehensive approach holds the potential to not only connect job seekers with their ideal roles but also empower organizations to source and engage with the best-fit talent more efficiently than ever before.

1.1 Purpose:

- **Expanded Access:** This project aims to offer a wide array of job opportunities and internships across industries, catering to individuals with diverse skills and backgrounds.
- **Efficient Search:** By providing advanced search filters, the portal helps users quickly find relevant job openings and internships, saving time and frustration.
- **Personalized Suggestions :** Utilizing data analysis and machine learning, the portal tailors job and internship recommendations based on users' preferences and qualifications.
- **Smooth Interactions:** The portal facilitates seamless communication between employers and job seekers, simplifying application tracking, interview scheduling, and direct engagement.
- **Skill Enhancement:** With a dedicated internship section, the project supports skill development by offering hands-on experience and industry exposure for students and early-career professionals.

1.2 Objectives:

- **Aggregation of Opportunities:** The primary objective of this project is to develop a centralized platform that aggregates a diverse range of job opportunities and internships, providing users with a comprehensive database to explore and apply for relevant positions.
- **Efficient Search and Matchmaking:** The project aims to implement advanced search and matchmaking functionalities, enabling users to quickly find job openings and internships that align with their skills, qualifications, and preferences.
- **Personalization Through Technology:** Leveraging data analytics and machine learning, the project seeks to personalize the user experience by offering job and internship recommendations tailored to each user's background, experience, and job search history.
- **Enhanced Communication Channels:** The project's goal is to establish seamless communication channels between employers and job seekers, allowing for streamlined application submission, interview scheduling, and real-time updates on application statuses.
- **Promotion of Skill Development:** With a dedicated focus on internships, the project aims to promote skill development and practical learning by providing students and early-career professionals with valuable internship opportunities across various industries and sectors.

1.3 SCOPE:

The scope of this project encompasses the development and implementation of a dynamic job portal designed to revolutionize the job search and recruitment process. This includes creating a user-friendly platform with advanced search features, personalized recommendations, and direct communication channels between job seekers and employers. The project will aggregate a diverse range of job opportunities and internship listings across industries, providing users with a centralized hub for exploring and applying for positions.

Leveraging data analytics and machine learning, the portal will offer tailored suggestions to enhance user experience. Additionally, the project will focus on establishing a dedicated section for internships, enabling students and early-career professionals to gain valuable hands-on experience. The scope encompasses the end-to-end process, from designing the interface to developing backend functionalities, ensuring efficient interaction, and ultimately contributing to bridging the gap between talent acquisition and talent exploration.

Chapter 2

Problem Definition:

The existing job search and recruitment process is fraught with inefficiencies, often leading to information overload for job seekers and time-consuming processes for employers. Traditional job portals lack personalized recommendations and seamless communication channels, resulting in mismatches between job seekers' skills and available positions. Additionally, the transition from education to employment is often challenging due to a lack of practical experience. This project aims to address these issues by developing a comprehensive job portal that leverages cutting-edge technologies to provide personalized job recommendations, streamlined candidate-employer interactions, and a dedicated internship section, thereby revolutionizing the job search and recruitment process while enhancing skill development opportunities.

- **Information Overload:** The current job market presents an overwhelming array of job openings and internships across various platforms, making it challenging for job seekers to identify relevant opportunities. The lack of tailored recommendations often results in frustration, wasted time, and missed potential matches.
- **Inefficient Communication:** Conventional job application processes involve manual submission, limited transparency, and delayed responses. This leads to a disjointed experience for both job seekers and employers, causing valuable opportunities to be lost in the process.
- **Skills Gap and Transition:** Graduates and entry-level professionals often struggle with the transition from academia to the workforce due to a lack of practical experience. Traditional job portals primarily focus on full-time roles, leaving students with limited avenues to secure internships that can enhance their skill sets and improve their employability.

- **Unmet Employer Needs:** Employers, on the other hand, grapple with a flood of applications that may not align with their specific requirements. The absence of efficient tools to evaluate and manage applicants can lead to delayed hiring decisions and potentially overlooking well-suited candidates.

Chapter 3

Proposed system:

The proposed system is a revolutionary job portal and skill development platform designed to address the multifaceted challenges faced by job seekers, employers, and students transitioning into the workforce. Leveraging state-of-the-art technologies and innovative features, this platform offers a comprehensive solution to the current inefficiencies within the job search and recruitment process. At its core, the system aims to provide a personalized experience for job seekers by utilizing advanced machine learning algorithms to offer tailored job recommendations that align with individual preferences and skills. This approach alleviates the information overload often encountered in traditional job searches, increasing the likelihood of finding suitable positions.

Facilitating efficient and transparent communication channels between job seekers and employers is a central pillar of the proposed system. Through features like real-time messaging, interview scheduling, and application tracking, the platform streamlines interactions, leading to quicker response times and greater transparency throughout the hiring journey. Additionally, the system acknowledges the importance of internships in bridging the skills gap for students and fresh graduates. A dedicated internship-focused section will connect users with valuable hands-on experiences, empowering them to develop practical skills and insights necessary for success in the job market.

3.1 Features and Functionality:

- **Enhanced User Experience:** Job seekers will experience a streamlined job search process with personalized recommendations, leading to improved satisfaction and increased job match rates.
- **Accelerated Hiring Process:** Employers will benefit from efficient communication channels and data-driven insights, resulting in quicker hiring decisions and reduced time-to-fill vacancies.

- **Improved Skill Readiness:** Students and fresh graduates will have access to internship opportunities that align with their career aspirations, enabling them to develop practical skills and increase their employability.
- **Holistic Skill Enhancement:** The inclusion of skill development resources will empower users to continually enhance their skills, fostering a culture of lifelong learning.

By offering a comprehensive job portal that addresses the challenges of information overload, communication gaps, skills gap, and employer needs, the proposed system aims to redefine the job search and recruitment landscape, ultimately benefiting both job seekers and employers in the modern professional landscape.

Chapter 4

Project outcome:

A project outcome refers to the tangible and measurable results, deliverables, or achievements that are expected as a result of completing a specific project. These outcomes are typically defined at the beginning of the project and serve as the primary goals or objectives to be accomplished. The project outcome represents the intended impact or value that the project is expected to bring to its stakeholders, whether it's a product, service, solution, or any other desired result. It provides a clear understanding of what success looks like for the project and serves as a basis for evaluation and assessment once the project is completed.

- **Improved Job Matching:** This outcome indicates that the job filtering system will have a significant impact on users' job matches. It means that users will no longer need to sift through numerous job listings that may not be relevant to their qualifications or career goals. Instead, they will receive personalized recommendations that closely align with their unique skills, experience, preferences, and aspirations. This leads to more efficient and effective job searching.
- **Time and Effort Savings:** This outcome highlights the practical benefits of the system. Users will experience a reduction in the time and effort required for their job search. By providing an organized list of relevant job listings, the system streamlines the process and eliminates the frustration of searching through irrelevant opportunities. This leads to a more user-friendly and efficient job search experience.
- **Enhanced Career Development:** This outcome emphasizes the long-term advantages for users. The system not only helps users find jobs but also recommends positions that challenge them and contribute to their personal and professional growth.

Chapter 5

Software Requirement:

The job recommending system you've described utilizes a comprehensive stack of front-end and back-end technologies. On the front end, it relies on HTML, CSS, and Bootstrap to create an appealing and user-friendly interface. HTML forms the backbone for structuring the content, CSS provides the styling and layout, and Bootstrap offers a responsive framework for seamless design across various devices. Together, these technologies ensure a visually pleasing and accessible user experience, enabling job seekers to interact with the system effortlessly.

On the back end, the system leverages Django, specifically version 4.2.5, as its web framework. Django is a powerful and secure Python framework renowned for its high-level functionalities, including built-in authentication and database management. It provides an efficient way to handle user data, job listings, and recommendation algorithms. With Django's robust features, your job recommendation system can process and analyze user preferences and job listings, delivering tailored recommendations to users based on their skills, experience, and interests. This combination of front-end and back-end technologies creates a dynamic and efficient platform for connecting job seekers with suitable employment opportunities.

Chapter 6

Project Design:

- **Home page:** Upon logging in, Job Navigo's home page offers users a tailored experience, showcasing their profile information and providing quick access to job searches, alerts, and recent activities, streamlining their job search process.



Figure 6.1 **Home page**

- **Job List:** The job list on Job Navigo compiles a comprehensive range of job opportunities, enabling users to explore and apply for positions that align with their career goals and interests. Whether you're searching for your dream job or seeking the next career move, the job list on Job Navigo provides a diverse selection of opportunities to choose from.



Job Portal						
Home Latest Jobs User Login Recruiter Login Admin Login Contact us						
Latest Job List						
<div>Copy Excel CSV PDF</div> <div>Search: <input type="text"/></div>						
S.No	Company Name	Job Title	Location	Start Date	End Date	Action
1	APSIT	Web Computing Professor	Thane	Oct. 23, 2023	Oct. 31, 2023	Login to apply
2	APSIT	Backend Developer	Thane	Oct. 20, 2023	Nov. 5, 2023	Login to apply
3	Guitar	PHP Developer	Thane	Oct. 19, 2023	Dec. 29, 2023	Login to apply
4	Vaikhav ED	Engineering Graphics	Mumbai	Oct. 19, 2023	Nov. 16, 2023	Login to apply

Figure 6.2 Job List

- **User Profile:** The user profile on Job Navigo encapsulates your professional identity, skills, and preferences, allowing you to manage and personalize your job search journey.


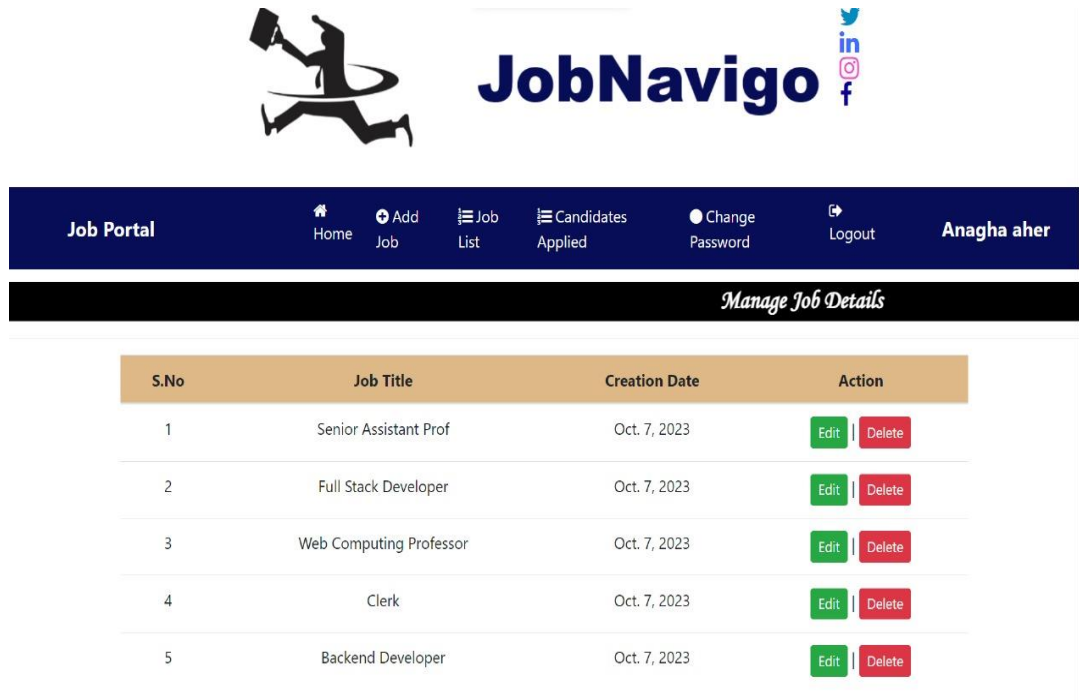
Job Portal	
Home Job List Recommendation Resume Builder Change Password Logout	Ayush Mistry
Profile	
<div> <div>First Name</div> <input type="text" value="Ayush"/> </div> <div> <div>Last Name</div> <input type="text" value="Mistry"/> </div> <div> <div>Contact</div> <input type="text" value="7620483162"/> </div> <div> <div>Email ID</div> <input type="text" value="ayush@gmail.com"/> </div> <div> <div>Gender</div> <div> <input type="radio"/> Male <input type="radio"/> Female </div> </div> <div> <div>Image</div> <div> <input type="button" value="Choose File"/> No file chosen </div> </div> <div> <input type="button" value="Submit"/> </div>	

Figure 6.3 User Profile

➤ Job Details

Job details typically include information such as job title, responsibilities, and qualifications. They provide a concise overview of what the position entails, ensuring candidates understand the role's expectations and requirements.



The screenshot displays the JobNavigo web application interface. At the top, there is a header bar with the JobNavigo logo and navigation links: Home, Add Job, Job List, Candidates Applied, Change Password, Logout, and the user name Anagha aher. Below the header, there is a section titled "Manage Job Details" which contains a table with the following data:

S.No	Job Title	Creation Date	Action
1	Senior Assistant Prof	Oct. 7, 2023	Edit Delete
2	Full Stack Developer	Oct. 7, 2023	Edit Delete
3	Web Computing Professor	Oct. 7, 2023	Edit Delete
4	Clerk	Oct. 7, 2023	Edit Delete
5	Backend Developer	Oct. 7, 2023	Edit Delete

Figure 6.4 Job Details

➤ Chat bot

A chatbot is a computer program designed to simulate human conversation, enabling automated interactions with users through text or voice. Chatbots are commonly used in customer service, providing quick responses and assistance 24/7. They can be rule-based, following predetermined scripts, or employ artificial intelligence to understand and respond to natural language. Chatbots are increasingly prevalent in various industries, from e-commerce and healthcare to banking, as they enhance user experiences and streamline communication, ultimately saving time and resources.

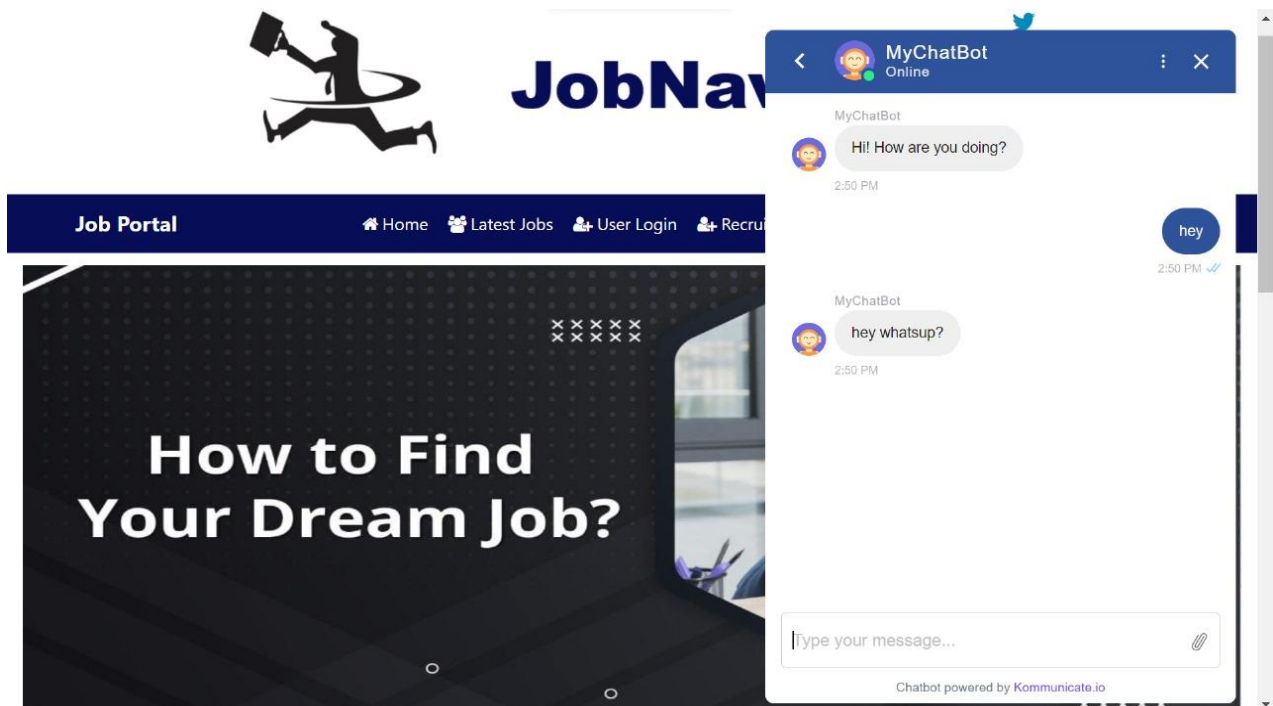


Figure 6.5 Chat bot

Chapter 7

Project Scheduling :

Sr. No	Group Member	Time duration	Work to be done
<u>1</u>	KRISH JASWAL	August-November	Implementing the genetic algorithm required for the project.
<u>2</u>	SHRAVANI KULKARNI	August-November	Implementing the NLP algorithm required for the project.
<u>3</u>	KHUSHI KADAM	August-November	Implementing the GUI of the project.
<u>4</u>	VEDANT MAYEKAR	August-November	Implementing the GUI of the project.

Smartsheet Tip → A Gantt chart's visual timeline allows you to see details about each task as well as project dependencies.

Smartsheet Tip → A Gantt chart's visual timeline allows you to see details about each task as well as project dependencies.

[illegible]

Conclusion:

In conclusion, the implementation of this job filtering system represents a significant step forward in simplifying and enhancing the job and internship search process. By aligning users with opportunities that match their skills, experience, preferences, and career goals, the project addresses the common challenges of navigating a competitive job market.

The project's outcomes, including improved job matching, time and effort savings, enhanced career development, user satisfaction, and an adaptive system, collectively create a user-centric solution that offers both immediate and long-term benefits. Users will experience a more efficient and fulfilling job search experience, leading to increased job satisfaction and personal growth.

Moreover, the system's adaptability ensures that it remains valuable and relevant over time, evolving with user feedback and the ever-changing landscape of the job market. This project represents a significant stride in simplifying job searching, enhancing career prospects, and ultimately contributing to the success and contentment of its users. In addition to the immediate benefits for users, the project holds the potential to influence the larger job market landscape. It can encourage employers and recruiters to present more relevant opportunities to potential candidates, ultimately fostering a more efficient and harmonious job market.

The adaptability and continuous improvement aspect of the project also underscore its commitment to long-term success. As it evolves with the changing needs and preferences of users, the system is poised to remain a valuable resource for job seekers, ensuring their success well into the future.

By addressing the complexities and challenges of the job search process, this project not only streamlines the path to satisfying career opportunities but also contributes to an ecosystem where individuals are better matched with the right roles, leading to increased job market efficiency and overall economic productivity. Ultimately, this project has the potential to make a meaningful impact on the lives of job seekers and the job market as a whole.

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