Unnati Path (Job Portal)

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I.   ABSTRACT

A Unnati Path (job portal) is an online platform designed to facilitate the interaction between job seekers and employers, streamlining the hiring process. This portal serves as a bridge, offering a centralized location for candidates to browse job listings, upload resumes, and apply for relevant positions across industries. Simultaneously, it enables companies to post job openings, filter applications, and shortlist potential candidates based on qualifications and experience. The portal is built with user-friendly interfaces that cater to both job seekers and recruiters, ensuring seamless navigation. Advanced search filters such as job type, location, salary, and required qualifications enable users to narrow down their options efficiently. In addition to these, personalized dashboards allow candidates to track their applications, receive job alerts, and gain insights into the job market. Furthermore, the integration of ChatGPT can provide personalized job recommendations based on users' skills, preferences, and previous searches, creating a more tailored job-hunting experience. Voice assistants can also facilitate real-time updates, reminding users of application deadlines and upcoming interviews, thereby improving their organization and preparation. The combined functionality of ChatGPT and voice assistants fosters a more interactive and supportive environment for job preparation. Overall, a well-designed job portal optimizes the job search and recruitment process, offering efficiency, convenience, and accessibility for both job seekers and employers.

Keywords: Find jobs online, Career opportunities, Job interview preparation, ChatGPT for job interviews, Google Assistant job help, AI mock interview, AI career guidance, Mock interview online, Resume and cover letter AI review, Online job applications.

II. INTRODUCTION

A job portal is an online platform that connects employers with job seekers, streamlining the process of job search and recruitment. It allows companies to post job openings, while individuals can browse listings, upload their resumes, and apply for jobs. Additionally, job portals often feature filters to sort listings by industry, location, salary range, and experience level. **Unnati Path** is an online job portal developed with the vision of bridging this digital employment divide. The platform aims to create an inclusive ecosystem where job seekers can discover relevant job opportunities based on their skills, location, and interests, while employers can efficiently find suitable candidates. Designed with user-friendly features, regional language support, and skill-based job matching, Unnati Path caters especially to first-time digital users and those seeking opportunities beyond metropolitan areas.

Unnati Path helps users create resumes, search for jobs based on their skills and location, and apply directly through the website. Employers can post jobs, view applicant profiles, and find the right candidates faster. To make the process smarter and more efficient, we also use Artificial Intelligence (AI). The AI system suggests jobs to users based on their interests and experience, and helps employers filter the best candidates.

III. LITERATURE REVIEW

Job portals have become an important part of the hiring process in today's digital world. Websites like Naukri, Indeed, and LinkedIn help people search and apply for jobs easily. They also help companies post job openings and find suitable candidates. These platforms have made job hunting faster and more organized than traditional methods like newspapers or word-of-mouth. resources that assist you in writing a professional technical paper.

To improve the job search experience, new technologies like Artificial Intelligence (AI) are being used. AI can help match jobs to people based on their skills and interests. It can also give smart suggestions to users. Another helpful tool is AI-based chat systems, like ChatGPT, which can guide users in writing resumes, answering common questions, and suggesting job roles. Our project, Unnati Path, builds on these ideas. It not only connects job seekers and employers but also uses AI and a simple chatbot to help users find the right jobs and apply more easily. This makes

the platform more useful, especially for people who may not be very experienced with technology.

Study/Platform	Reference Link	Advantages	Disadvantages
Naukri, Indeed, LinkedIn	https://www.naukri.com https://www.indeed.com https://www.linkedin.com	Fast job search; easy application; broad reach	High competition; sometimes outdated listings
Use of AI in job portals	https://openai.com/research	Smart job matching; personalized recommendations	May miss human judgment; possible bias in AI
AI-chatbots (e.g., ChatGPT)	https://openai.com/blog/chatgpt/h	Helps write resumes; answers FAQs; gives suggestions	May give generic answers; needs updates
Unnati Path (project)	— (internal project)	Combines job search + AI chatbot; easy for users	New system; limited user base initially

IV. SYSTEM DESIGN AND METHODOLOGY

The system architecture of Unnati Path is designed using a modular, client-server model that separates the frontend and backend components to ensure scalability, maintainability, and ease of development. The platform provides a smooth and responsive user interface for job seekers and employers, along with robust backend services that manage data and security operations. It also integrates artificial intelligence features, including a chatbot assistant, to improve user experience.

FRONTEND
The **frontend** of the system is developed using **React.js**, a popular JavaScript library for building interactive user interfaces. React's component-based architecture allows for reusable UI elements and a dynamic user experience. The interface includes pages for registration, job searching, job

posting, resume building, and an AI chat assistant for guidance.

BACKEND
The backend is built using Node.js with the Express.js framework. This server handles all the core functionalities such as user authentication, job and resume management, and AI integration. It interacts with the frontend through RESTful APIs, ensuring a smooth and secure flow of data. The backend also communicates with the database and AI services.

DATABASE
The system uses MongoDB, a MYSQL database, to store user profiles, job listings, applications, and chat logs. The flexible document-based structure of MongoDB is ideal for handling varied user data, including resumes and skill sets. The main collections in the database include Users, Jobs, Applications, and Chat Logs. Each user document stores information like name, email, hashed password, and role (job seeker, employer, or admin). Jobs are stored with fields like title, description, skills required, and employer ID. Applications link job seekers with specific jobs and include resume details and status tracking
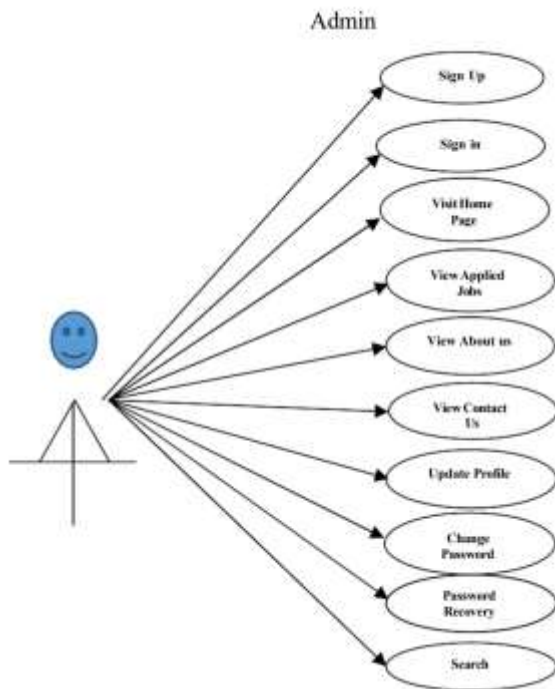
AI/Chat Module
An AI assistant (like ChatGPT integration) helps users build resumes, answer job-related queries, and suggest roles. AI-driven chatbot to assist users with job searching, resume building, and interview preparation**.**

V. MODULES DISCUSSION

Admin modules:
Functionalities relevant to administrators are provided by this module. The administrator oversees the whole application process and keeps track of the job candidate and employer profiles.

Admin

Dashboard: This part gives the administrator a quick overview of all jobs, all employers, all candidates, and all jobs combined.

Job Category: The administrator can add, edit, and delete jobs in this section.

List of Employers: The administrator can access this part to view the list of employers and view each employer's details.

Reg Job seeker: The administrator can examine the list of applicants (job seekers) as well as the specifics of each candidate in this area.

Pages: The administrator can control the contact and about us pages in this section.

Reports: Admins can create reports in this section detailing the number of employers and applicants who register between two dates.

Search: Using the company name and mobile number fields, the administrator can look up a specific employer or candidate in this section.

Employers module:
Employer-related functions are offered by this module. Employers are able to post job opening details and update

them as needed. Employers have various factors to choose from when sifting through applicant resumes.

Jobs: Employers can post and manage jobs in this section. Candidates

List : Employers can browse the list of applicants in this section and communicate the candidates they have chosen.
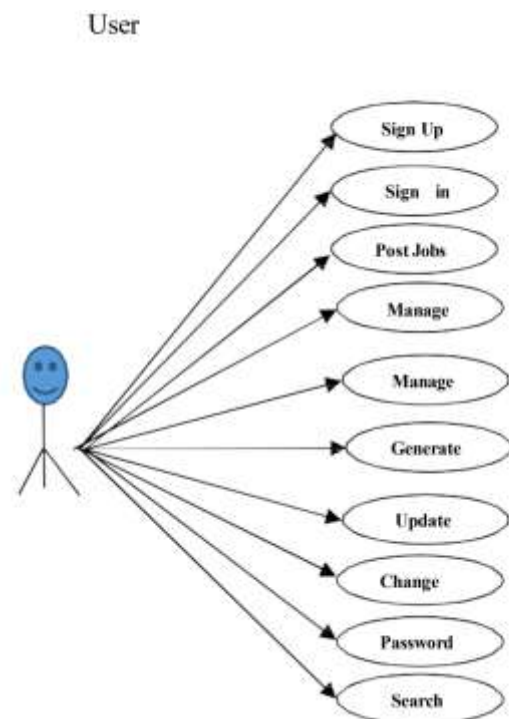
Reports: Employers can check the number of candidates who apply for a job during specific time periods in this section. Additionally, the employer has the ability to reset, modify, and update his password.

Candidates(Jobseeker) Modules:

Home: Candidates can view and apply for jobs advertised by employers in this section. Jobs Applied: Candidates can examine the results of jobs applied for in this section.

About Us: Candidates can examine the website's "about us" page in this part.

Get in touch with us: Candidates can read the website's contact us page in this area. Moreover, candidates (job seekers) have the ability to reset, modify, and update their passwords.

User

VI. IMPLEMENTATION

LAYER	TECHNOLOGY
Frontend	React.js, Tailwind CSS
Backend	Node.js, Express.js
Database	MongoDB
Hosting	Vercel,(Frontend), Render/Heroku/AWS (Backend)
Others	AI , ChatGPT , ChatBot Virtual Assistance Multer(for CV uploads),

	Cloudinary (optional for file storage)

LOGIN PAGE

VII.   DATA MODELING

Data modelling structure for a Job Portal Website like Unnati Path. This model defines the main entities (collections/tables), their attributes, and relationships.

ADMIN TABLE

The admin table (or Admin document, if you're using MongoDB) for the Unnati Path job portal.

RECRUITER TABLE

Recruiters are users who post jobs, manage applications, and interact with job seekers.

SEEKER

Job seekers are users who register to apply for jobs, upload resumes, and manage applications.

JOB POST

This table stores all job listings created by recruiters.

APPLIED JOB

This table tracks job applications submitted by seekers to job posts.

VIII.   RESULT AND EVALUATION

Personalized Job Search Assistance: The Virtual Assistant (powered by ChatGPT) can Interact with job seekers to understand their preferences, skills, and career goals, providing tailored job recommendations in real-time.

Instant Help and Guidance: ChatGPT will offer 24/7 assistance, answering common queries like how to apply for jobs, how to improve resumes, or how to best prepare for interviews.

Interview Preparation ChatGPT can simulate mock interviews, helping job seeker prepare for various job interview questions by offering feedback and suggesting improvements.

IX. CONCLUSION

AI-driven job recommendations provide more relevant matches based on users' skills and preferences. Real-Time Career Assistance an AI chatbot offers instant resume guidance, interview tips, and career advice.

The Unnati Path job portal system was designed and developed to provide a reliable platform for job seekers and recruiters to connect efficiently. Using modern technologies like React.js, Node.js, and MongoDB, we built a responsive, secure, and scalable web application.

The system supports key features such as user registration, job postings, application tracking, and admin management, all while ensuring data security and role-based access control. The database design supports efficient data storage and retrieval for users, jobs, and applications.

This project demonstrates how structured system design, proper data modeling, and clean implementation can result in a functional and user-friendly job portal that meets real-world employment needs.

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