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## \*\*Department of Computer Science\*\*

\*\*University of Gujrat\*\*

### \*\*Final Year Project Title\*\*

\*\*AI-Powered Doctor Recommendation System with Automated CV Parsing\*\*

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\*\*Submitted By:\*\*

Shahan Khattak

Reg# [Your Reg Number]

Kamran

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Ahmed

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\*\*Supervised By:\*\*

[Supervisor’s Name]

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## \*\*DECLARATION\*\*

I certify that project title \*\*AI-Powered Doctor Recommendation System with Automated CV Parsing\*\* is under my supervision with students \*\*Shahan Khattak, Kamran, Ahmed\*\* of \*\*Faculty of Computing & Information Technology\*\*, University of Gujrat, Pakistan, who worked under my supervision.

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\*\*Supervisor’s Name\*\*

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Dated: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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## \*\*Final Year Project Proposal\*\*

### \*\*Abstract:\*\*

This project proposes an AI-powered Doctor Recommendation System where patients can search for doctors using filters such as specialization and location. Doctors will upload their CVs, and the system automatically parses key information like qualifications, experience, and skills, storing them in a SQLite3 database. The AI evaluates the doctor's talent, skill level, and expertise based on the information extracted from the CV. The AI-generated recommendation provides a clear overview for each doctor, making it easy for patients to choose the best doctor based on this Ai Feature. Patients can directly contact doctors through their profile, which includes email or phone details. Admin verification ensures all doctor profiles are legitimate. The system is designed to streamline the doctor-patient connection process by using AI to evaluate doctor qualifications efficiently and accurately.

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### \*\*Introduction:\*\*

The Doctor Recommendation App aims to simplify how patients connect with qualified and skilled doctors. Doctors only need to upload their CVs, and the system automatically extracts key information such as qualifications, experience, and skills. An AI algorithm evaluates the doctor’s skill level based on the parsed CV data and generates a recommendation score, helping patients make informed decisions. The system also includes filters for patients to search for doctors by location and specialization. The entire process is secure, and doctor profiles are verified by the admin to ensure legitimacy.

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### \*\*Project Overview Statement:\*\*

This project is focused on creating a recommendation system where doctors upload their CVs, and the system automatically parses the data to create doctor profiles. The AI module evaluates each doctor’s talent and experience, generating a AI recommendation that patients can rely on to choose the best doctor. Patients can search for doctors using filters such as specialization and location, and they can contact doctors directly via email or phone. Admin verification ensures that all doctors are legitimate, making the platform secure and reliable for users. The system will use \*\*SQLite3\*\* for database management.

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### \*\*Targeted Audience:\*\*

- \*\*Patients\*\*: Individuals seeking skilled doctors for medical consultations.

- \*\*Doctors\*\*: Medical professionals looking to connect with patients and showcase their skills via the AI evaluation system.

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### \*\*Project Goals & Objectives:\*\*

- \*\*Goals\*\*: To create a system that allows patients to easily find skilled doctors based on AI-generated recommendations, location, and specialization.

- \*\*Objectives\*\*:

1. Automate the creation of doctor profiles by parsing CVs.

2. Implement an AI system that evaluates doctors' skills and generates AI recommendation.

3. Provide location-based search filters for finding nearby doctors.

4. Ensure admin verification for all doctor profiles.

5. Allow patients to directly contact doctors via email or phone.

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### \*\*Application Architecture:\*\*

The system will follow a three-tier architecture:

1. \*\*Frontend\*\*: A web-based user interface developed using HTML, CSS, and JavaScript. It will allow login/registration, doctor search, and display AI recommendations.

2. \*\*Backend\*\*: Django will be used to handle backend operations, including CV parsing, AI recommendations, and profile management.

3. \*\*Database\*\*: SQLite3 will store doctor profiles, patient data, and parsed CV information.

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### \*\*Hardware and Software Specifications:\*\*

- \*\*Frontend\*\*:

- HTML, CSS, JavaScript

- Bootstrap for responsive design

- \*\*Backend\*\*:

- Language: Python

- Framework: Django

- API Integrations: OpenAI for CV parsing, Google Maps API for location-based search

- \*\*Database\*\*: SQLite3 for managing doctor and patient data.

- \*\*Admin Panel\*\*: To verify doctor profiles and manage the platform.

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### \*\*Estimated Cost:\*\*

- \*\*Development\*\*: Using open-source technologies, so no direct software costs.

- \*\*API Costs\*\*: Free tiers of OpenAI (for CV parsing) and Google Maps API (for geolocation).

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### \*\*Tools and Technologies:\*\*

- \*\*Frontend\*\*: HTML, CSS, JavaScript, Bootstrap

- \*\*Backend\*\*: Django, Python

- \*\*Database\*\*: SQLite3

- \*\*APIs\*\*:

- OpenAI for parsing doctor CVs and extracting key information.

- Google Maps API for nearby doctor search.

- \*\*AI Recommendation\*\*: Machine learning models for evaluating doctor qualifications and providing AI recommendation.

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### \*\*Project Milestones & Deliverables:\*\*

1. \*\*Milestone 1\*\*: Login/registration system with admin verification.

2. \*\*Milestone 2\*\*: CV parsing and doctor profile creation.

3. \*\*Milestone 3\*\*: AI-based doctor recommendation system.

4. \*\*Milestone 4\*\*: Nearby doctor search using Google Maps API.

5. \*\*Milestone 5\*\*: Final testing, debugging, and deployment.

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### \*\*Work Division Among Group Members:\*\*

- \*\*Shahan Khattak\*\*: Backend development, database management (SQLite3), and API integration.

- \*\*Kamran\*\*: Machine Learning (AI recommendation system, CV parsing using OpenAI).

- \*\*Ahmed\*\*: Complete documentation and testing.

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