

Project planning phase 3

Technology Stack Architecture

Date	6/11/23
Team id	PNT2022TMID592330
Project title	Doctors annual salary prediction
Marks	

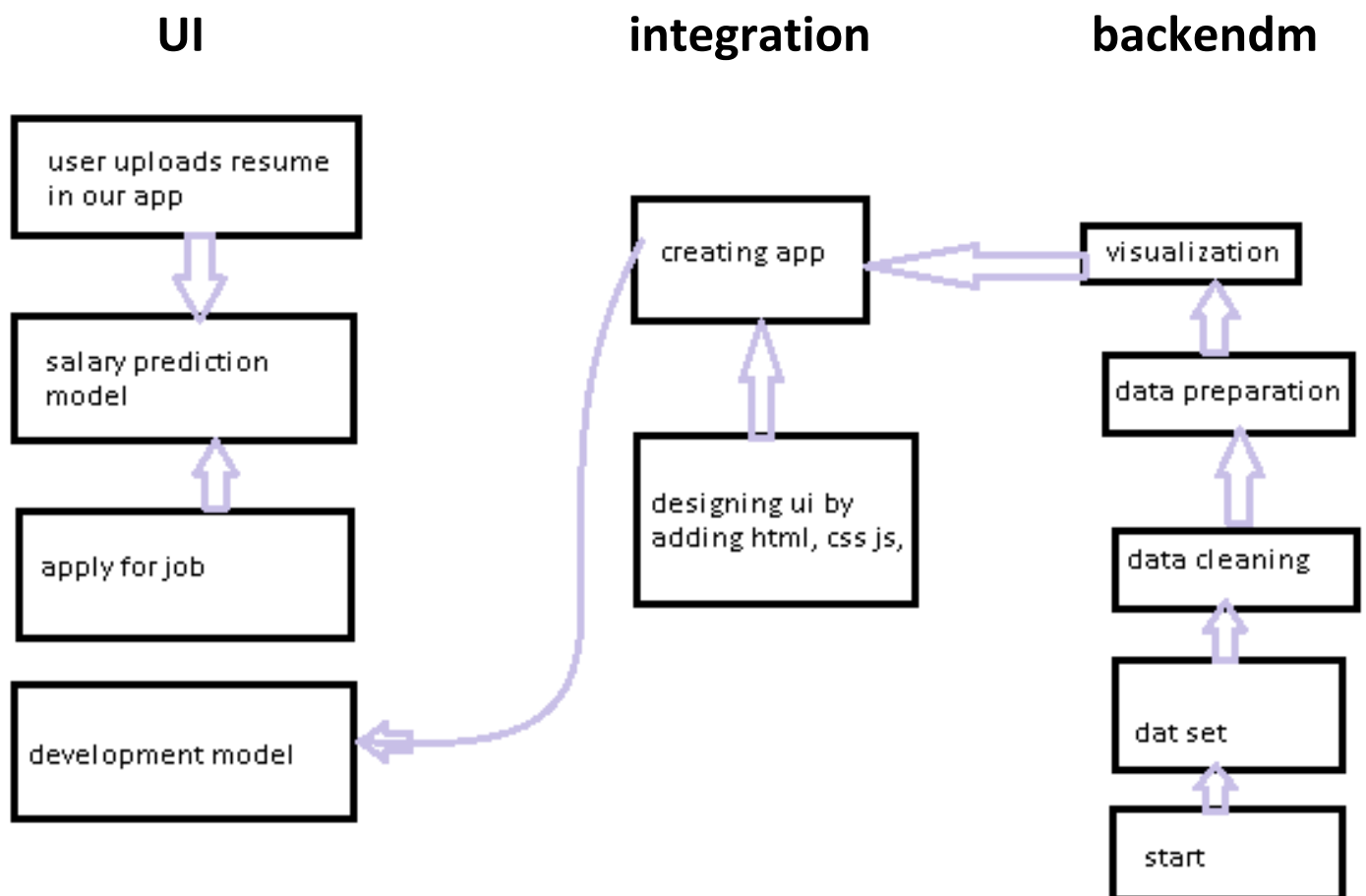


Table 1: components and technology

S no	Component	Description	Technology
1	User interface	How users will interact with the application to view and analyze salary predictions	HTML, CSS, JavaScript, Bootstrap
2	Application logic	Logic for processing salary data and generating predictions	Python
3	Data base	Storing and querying structured data on doctors' salaries, experience, and specializations	PostgreSQL, MongoDB
4	File storage	Secure storage for datasets and model artifacts	Amazon S3, Google Cloud storage
5	Frame work	Backend framework to handle requests and serve the data analytics dashboard	Django Framework
6	Machine learning	Algorithms to predict salaries based on various influencing factors	Regression Trees, neural network
7	Server/Cloud	Hosting the application and ensuring scalability and availability	AWS EC2, Google cloud compute engine

Table 2: application and characteristics

S no	Characteristics	Description	Technology
1	Open source frame work	Open-source frameworks that facilitate data analysis and predictive modeling	Python, R
2	Security implementation	Ensuring the security and privacy of sensitive salary data and compliance with healthcare regulations	SSL encryption, OAuth for authentication, HIPAA-compliant data handling practices
3	Scalable architecture	A robust system capable of handling large datasets of doctors' salaries and integrating new data sources as they become available	Cloud-based SQL and NoSQL databases, Containerization with Docker, Kubernetes for orchestration
4	availability	High availability of salary	Load balancers, Redundant server setup, CDN for static
5	performance	The system should process large datasets efficiently, deliver quick response times for salary Predictions, and handle concurrent requests without lag.	Data scrapping and collection, data visualization and we development