

Project Planning Phase-III

Technology Stack (Architecture & Stack)

Date	13 November 2023
Team ID	Team – 592864
Project Name	Restaurant Recommendation System
Maximum Marks	4 marks

Technical Architecture:

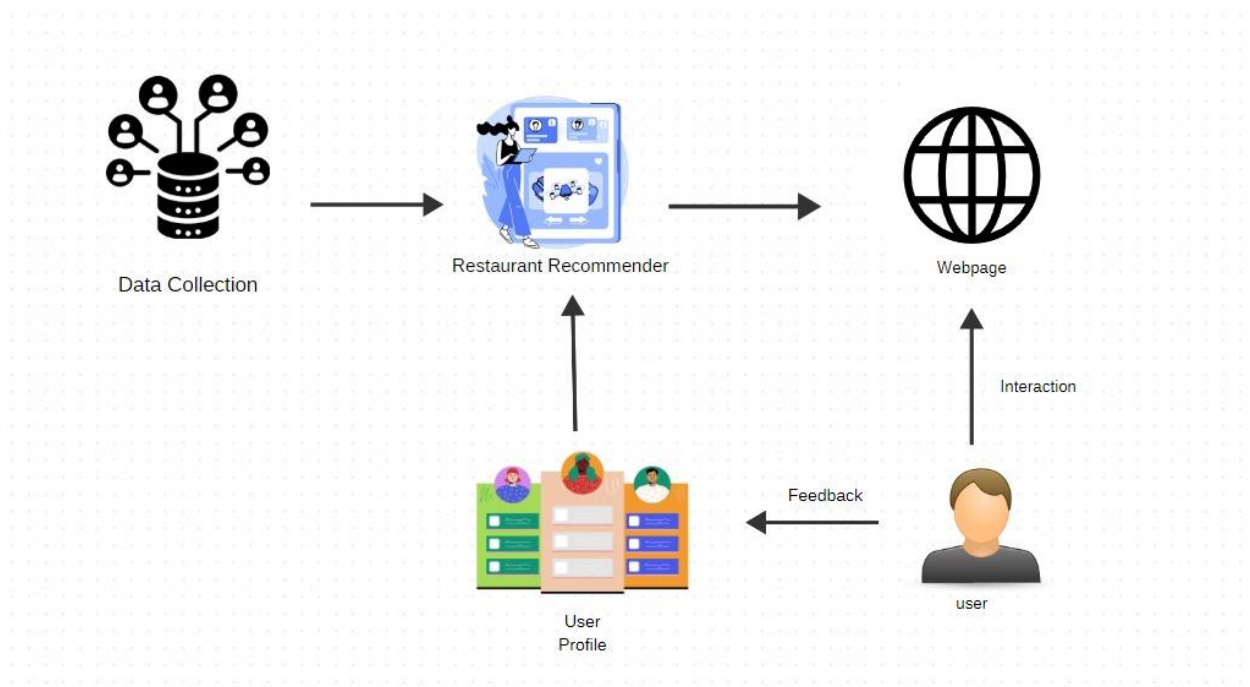


Table-1: Components and Technologies:

S. No	Component	Description	Technology
1	User Interface	How user interacts with application, e.g., Web UI	JS, Material-UI
2	Application Logic	Logic for a process in the application	Flask (Python) for the backend logic
3	Database	JSON web tokens (JWT) for storing user profiles, restaurants, and related data	JSON
4	Cloud Storage	Google Cloud Storage for scalable and secure cloud-based storage.	Google Cloud Storage
5	File Storage	Local file storage for storing static files like images are hosted on a cloud service.	Local storage, Google Cloud Storage (for static files)
6	External API	Purpose of External API used in the system	Google Maps API
7	Machine Learning Model	Purpose of Machine Learning Model	Kaggle
8	Infrastructure (Server/Cloud)	Hosting on AWS or Google Cloud Platform, utilizing server instances or serverless architecture.	Google Cloud Platform (Compute Engine, Lambda, or Kubernetes)

Table-2: Application Characteristics:

S. No	Characteristics	Description	Technology
1	Open-Source Frameworks	List the open-source frameworks used	JS, Flask (Python), Kaggle
2	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	HTTPS, Authentication (JWT), Role-based access control
3	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Microservices architecture, Docker, Kubernetes
4	Availability	Justify the availability of application, e.g., use of load balancers, distributed servers etc.)	Load balancing, Google Cloud Load Balancer, High Availability (HA) setups
5	Performance	Design consideration for the performance of the application	Caching mechanisms, Content Delivery

		(number of requests per sec, use of Cache, use of CDN's) etc.	Networks (CDN), Efficient database indexing, Query optimization
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References:

<https://javascript.info/>

<https://flask.palletsprojects.com/>

<https://cloud.google.com/storage/docs>

<https://categoritau.medium.com/restaurant-recommender-system-eefd3226ed61>

<https://docs.python.org/3/>

https://www.canva.com/design/DAF06JjTPDM/dr0TqmOhQW8UGvg_ILmz9Q/view?utm_content=DAF06JjTPDM&utm_campaign=designshare&utm_medium=link&utm_source=editor