

Project Design Phase-II Technology Stack (Architecture & Stack)

Technical Architecture:

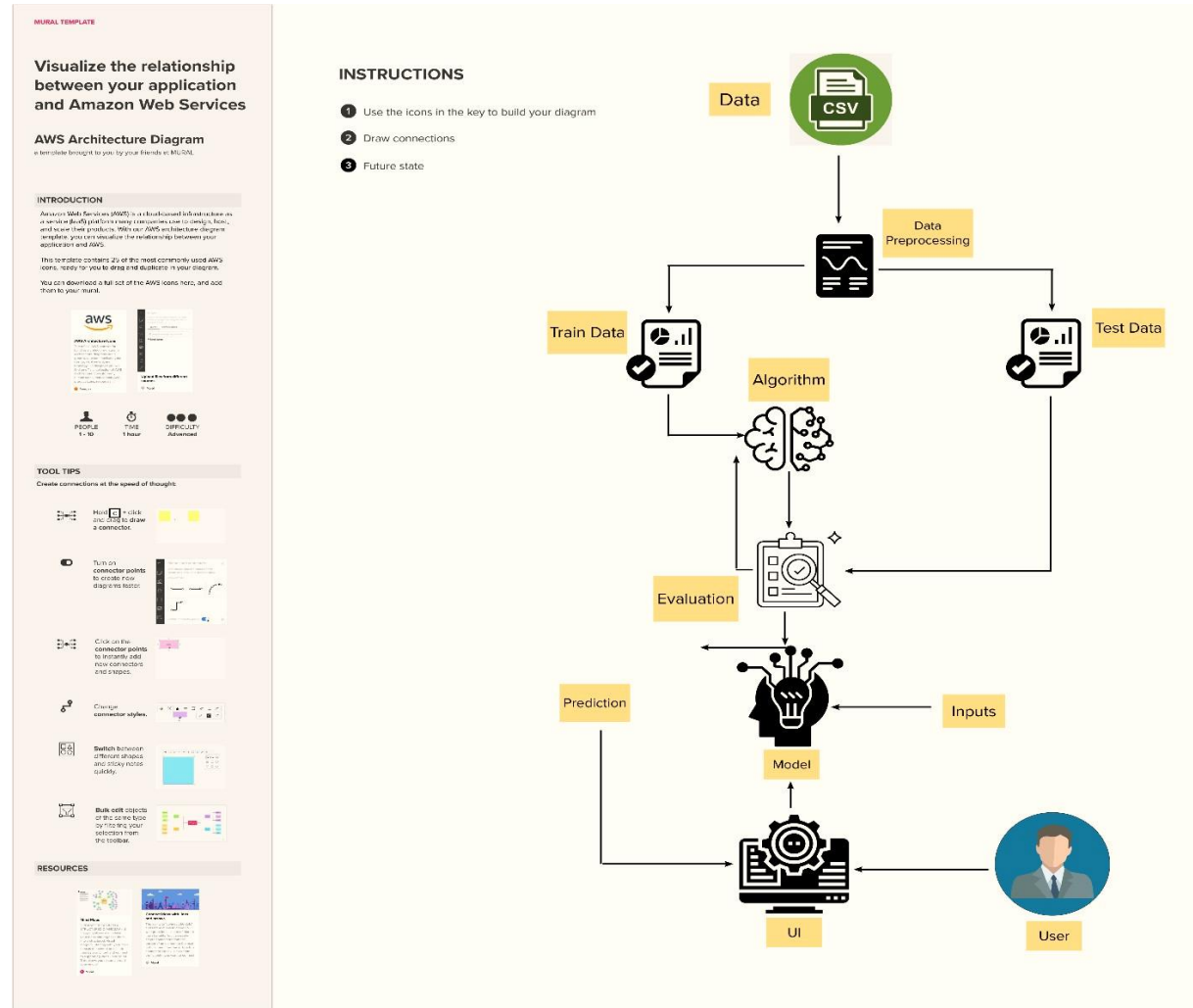


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User interacts with application like Web UI, Mobile App etc.	HTML, CSS, JavaScript etc.
2.	Application Logic-1	By collecting and analyzing past data, you train a model that detects specific patterns so that it can predict outcomes.	Java / Python
3.	Application Logic-2	This system provides a dialog interaction between the conversation system and users like chatbot.	IBM Watson STT service
4.	Application Logic-3	Add a natural language interface to your application to automate interactions with your end users.	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	Web API are available to developers and other users with minimal restrictions.	Web API, etc.
9.	External API-2	Access is limited to authorized clients with official licenses, and thus security measures tend to be stronger.	Partner API, etc.
10.	Machine Learning Model	Regression models always target a prediction value which is based on independent variables. It is used to calculate the relationship between two quantitative variables	Linear Regression Model, etc.
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: HTTP server Cloud Server Configuration: IaaS, SaaS, PaaS	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Flask is used for developing web applications using python.	Technology of Opensource framework are cloud, Agile, and DevOps.
2.	Security Implementations	SSL(Secured Sockets Layers), TLS(Transport Layer Security) etc.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	However with open source technology widely available, analytics tools are easier to access and are getting more affordable.	Technology used
4.	Availability	It is fast, efficient and reliable. Chances of occurrence of error is less when compared to existing system.	Technology used
5.	Performance	This system can support any number of users at a time. The mean time to view a webpage over a 56 Kbps modem connection shall not exceed 5 seconds.	Technology used