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

Date	22 October 2022
Team ID	PNT2022TMID00805
Project Name	Project - A NOVEL METHOD FOR HANDWRITTEN DIGIT RECOGNITION SYSTEM
Maximum Marks	4 Marks

Technical Architecture:

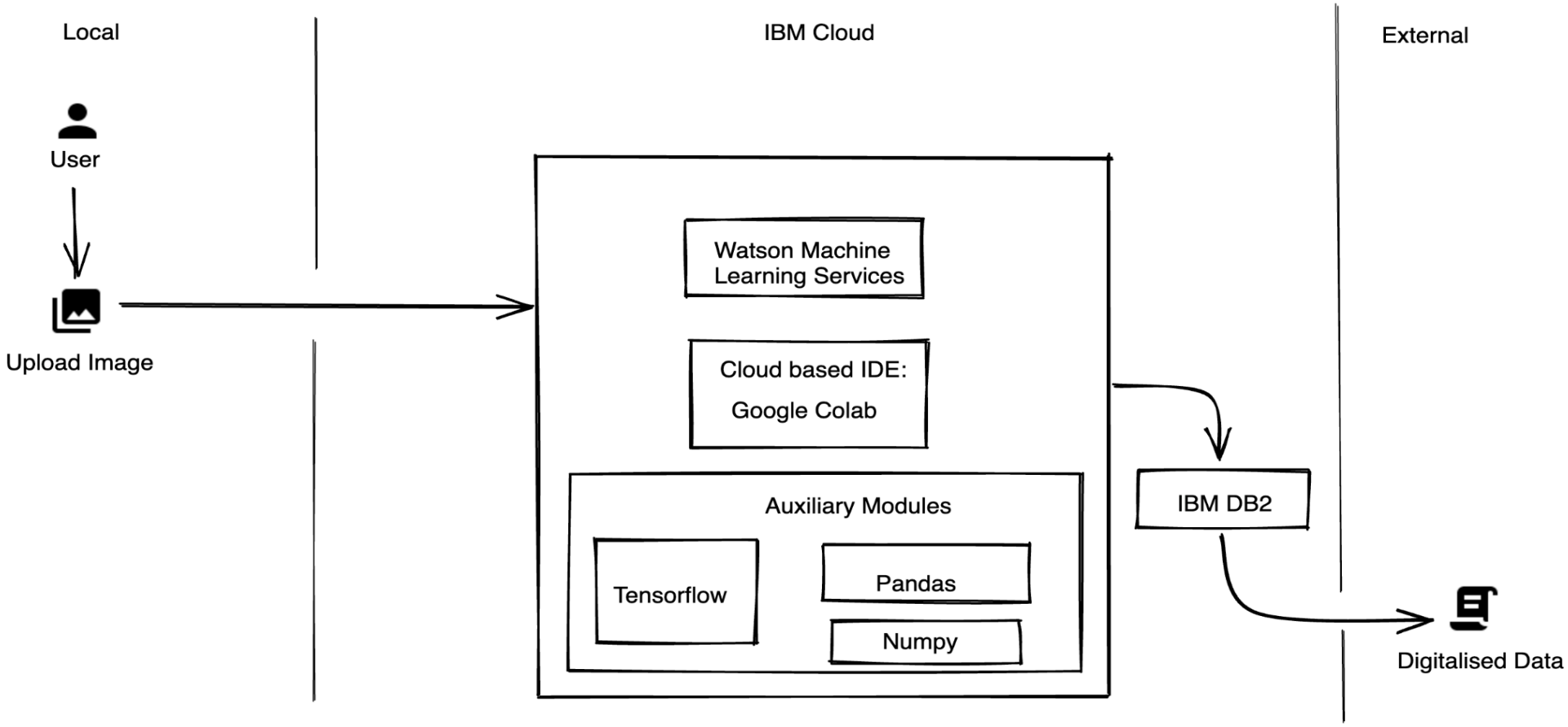

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web UI	HTML, CSS, JavaScript

2.	Application Logic-1	Logic for a process in the application	Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	NoSQL
6.	Cloud Database	Database Service on Cloud	IBM DB2
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	Purpose of External API used in the application	IBM Weather API, etc.
9.	Machine Learning Model	Purpose of Machine Learning Model	Handwriting Recognition Model
10.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local/ Kubernetes

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Tensorflow, numpy, pandas, matplotlib
2.	Scalable Architecture	Justify the scalability of architecture	2-tier architecture
3.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	DB2: multi-tenant system
4.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	15 connections per user, 200 MB of storage per user