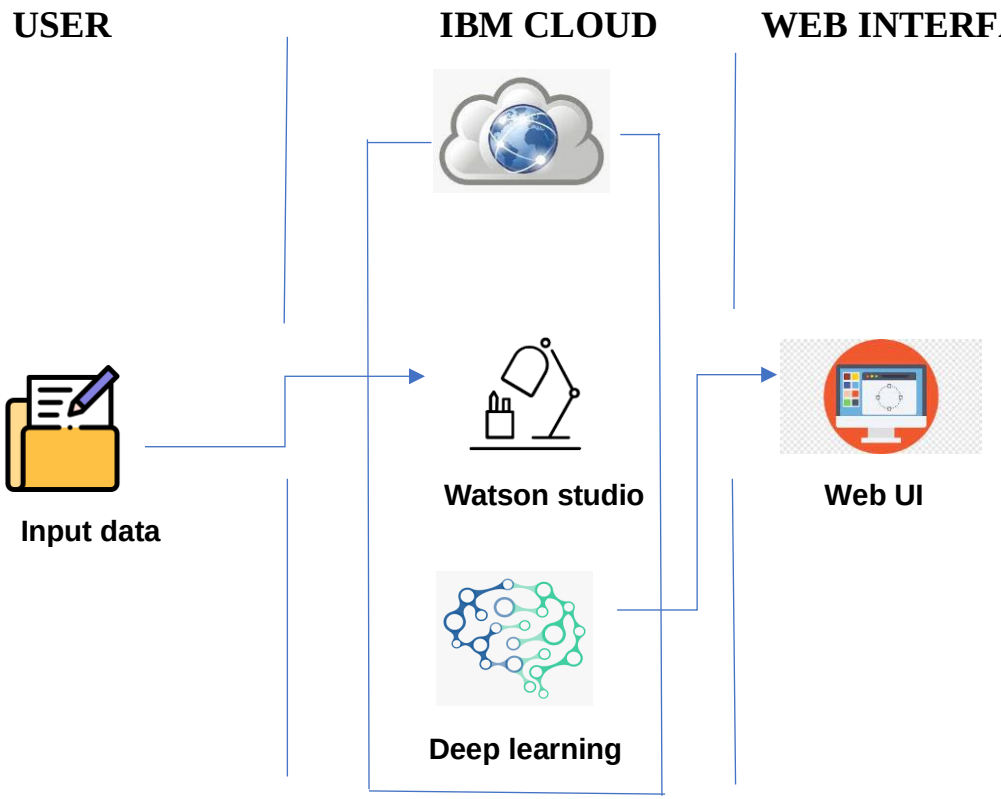
Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	18 October 2022
Team ID	PNT2022TMID52735
Project Name	Project – A Novel Method for Handwritten Digit Recognition System
Maximum Marks	4 Marks

Technical Architecture:



Guidelines:

- The HTML and CSS are used for the user interface for the user to use the application
- The user can see the information on how the image is being recognized.
- Once the button is launched, the user can see the screen to upload the image.
- After uploading the image, the predicted result will be displayed.

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with web based Handwritten digit predictor (UI)	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	Dealing with dataset	Java / Python
3.	Application Logic-2	Training and Building Deep learning model	IBM Watson STT service
4.	Application Logic-3	Deployment	IBM Watson Assistant
5.	Database	Data Type, Configurations	MySQL, NoSQL
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloud ant.
7.	File Storage	File storage requirements	IBM Cloud
8.	Deep Learning Model	Purpose of Deep Learning Model	Digit Recognition Model, etc.
9.	Infrastructure (Server / Cloud)	On cloud server we will be deploying the web interface using python	Local, Cloud Foundry

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Handwritten digit framework in python	Python
2.	Security Implementations	The segmentation capabilities of the generative models are powered by recognition. The method makes use of a relatively	OCR
3.	Scalable Architecture	The task of handwritten digit recognition using a classifier is of great importance and use in a variety of applications, including online handwriting recognition on computer tablets, the processing of bank check amounts, numeric entries in forms filled out by hand and more.	OCR
4.	Availability	Available for the user who wants to convert handwritten image to digital format	VGG
5.	Performance	Optical character recognition (OCR) technology gives more accuracy rates for typed text in high-quality pictures.	OCR