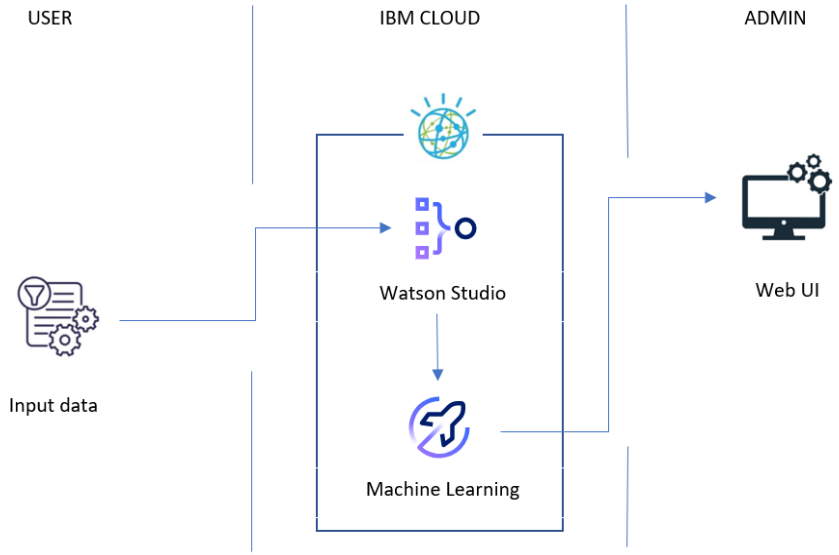
Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	17 October 2022
Team ID	PNT2022TMID28666
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 along with accuracy graph.

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI	HTML, CSS, JavaScript
2.	Application Logic-1	Model is built	Python
3.	Application Logic-2	Python model is deployed	IBM Watson Studio
4.	File Storage	Predicted outputs of the image are stored in a local folder.	Local Filesystem
5.	Machine Learning Model	To predict the image uploaded by the user.	Image Recognition Model
6.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Flask Cloud Server Configuration : IBM Watson Studio	Local, Cloud Foundry.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Flask
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	High workload can be supported without undergoing any major changes.	Technology used in the architecture is that with Python and the IBM cloud.
4.	Availability	Readily available enables the IT Infrastructure to function when some of the components fail.	Technology used is IBM cloud.
5.	Performance	Performance technology is a field which uses various tools,processes and procedures in a systematic and efficient manner to improve the desired outcomes of individuals and organizations.	Technology used is python.