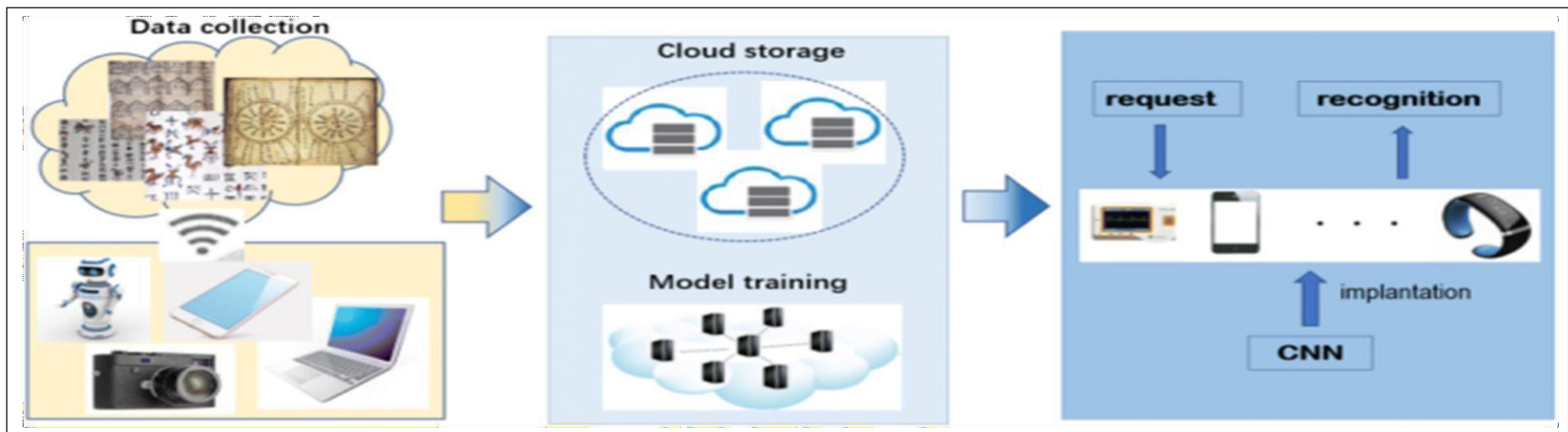


**Project Design Phase-II**  
**Technology Stack (Architecture & Stack)**

Date	14 October 2022
Team ID	PNT2022TMID20722
Project Name	Project - A Novel Handwritten Digit Recognition System
Maximum Marks	4 Marks

**Technical Architecture:**



**Table-1 : Components & Technologies:**

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript
2.	Application Logic-1	Logic for a process in the application	Python
3.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant
4.	File Storage	File storage requirements	IBM Block Storage
5.	External API-1	Purpose of External API used in the application	IBM Weather API
6.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model

S.No	Characteristics	Description	Technology
1.	Scalable Architecture	To justify the scalability of architecture used in system. User friendly and highly flexible.	3 – tier, Micro-services
2.	Availability	Figures and abstract. The capabilities for recognizing handwritten digits have been implemented. These characteristics extract slope or slant information from the digit image based on shape analysis. They are successful in achieving high recognition accuracy.	Distributed servers, IBM cloud
3.	Performance	The handwritten digits are accurately classified with an accuracy of (98-99) percent using the typical neural network implementations.	number of requests per sec, use of Cache, use of CDN's