

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

Date	16 October 2022
Team ID	PNT2022TMID19163
Project Name	Project – A new hint to transportation – Analysis of the NYC bike share system
Maximum Marks	4 Marks

Technical Architecture:

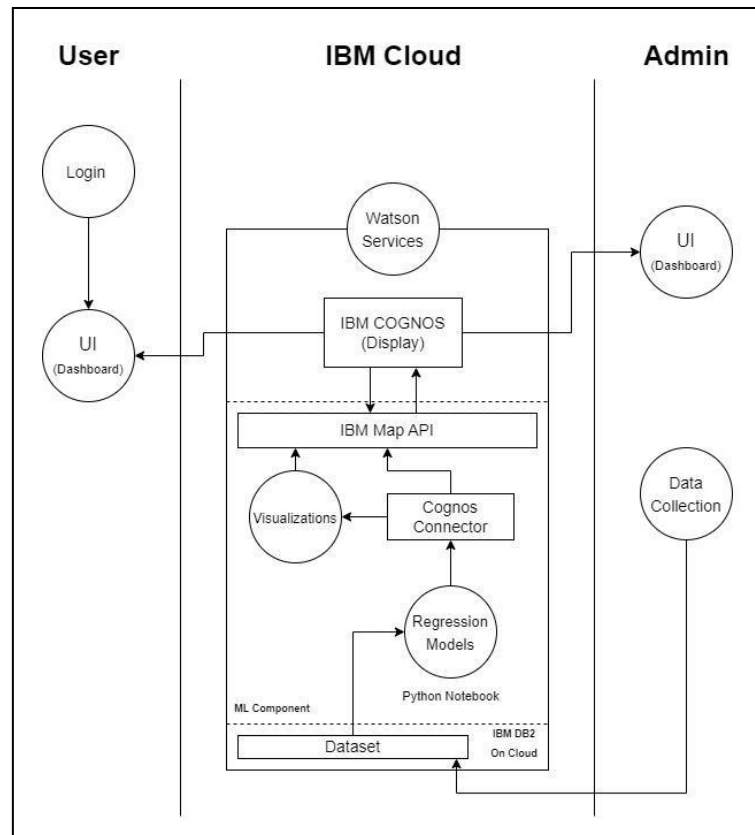


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface - 1	1. Display results of analysis as visualizations to user 2. Display insights obtained after data analysis	HTML, CSS, JavaScript, React JS, IBM Cognos, etc.
2.	Application Logic-1	Logic for a process in the application	Java / Python
3.	Database	To store the memory intensive Citi bike dataset	MySQL, MongoDB, etc.
4.	Cloud Database	To store the memory intensive Citi bike dataset on Cloud	IBM DB2, IBM Cloudant etc.
5.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
6.	External API-1	To obtain geospatial information of Citi bike in NYC and map it	IBM Map API
7.	External API-2	To perform analysis	Google Colab, Jupyter Notebook
8.	Machine Learning Model	1. To help predict results / values for new incoming data 2. To plot graphs based on dataset	Regression Models
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Local Server (localhost) Cloud Server Configuration : IBM Cloud	Local, Cloud Foundry, Kubernetes, etc.