

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

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| Date | 03 October 2022 |
| Team ID | PNT2022TMID17752 |
| Project Name | A New Hint to Transportation-Analysis of the NYC Bike Share System |
| Maximum Marks | 4 Marks |

Technical Architecture:

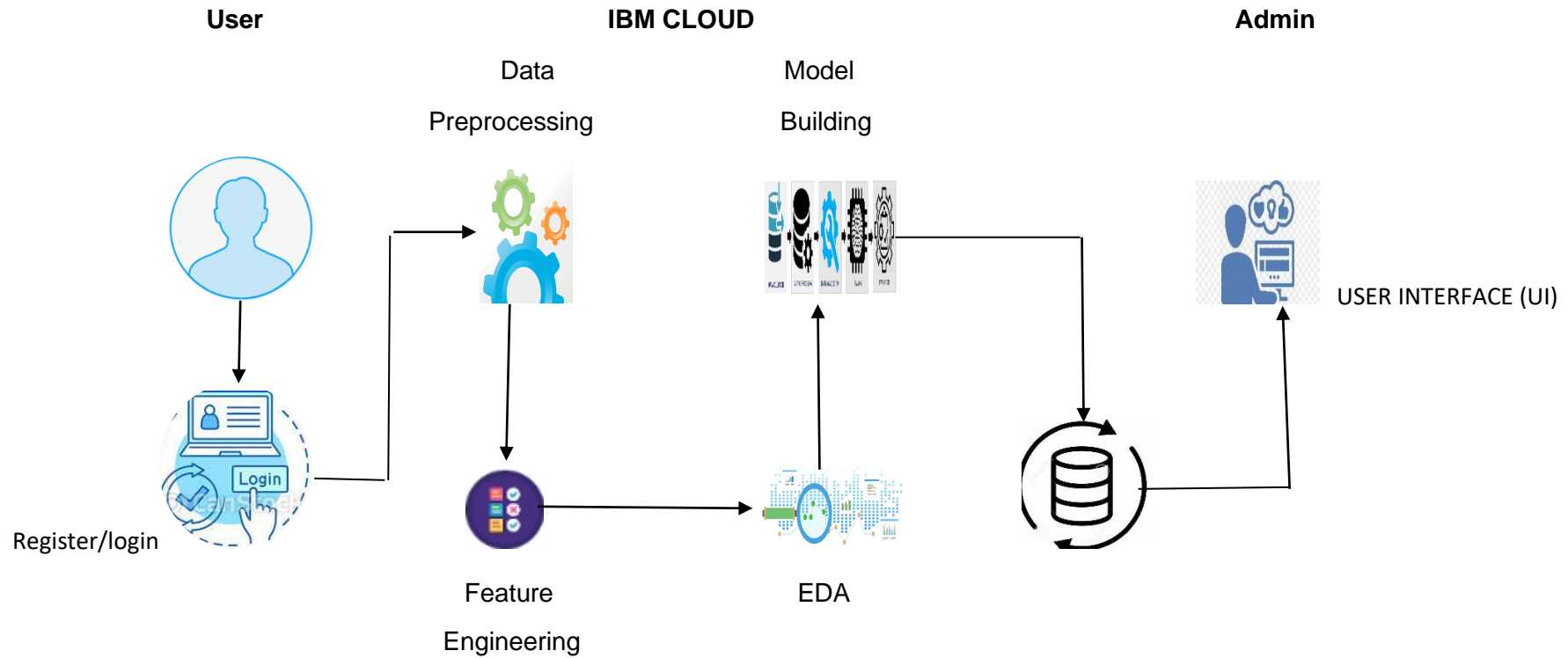


Table-1 :Components & Technologies:

| S.No | Component | Description | Technology |
|------|---------------------------|---|----------------------------|
| 1. | User Interface | User can Interact with web Application | HTML, CSS, JavaScript . |
| 2. | Data Pre processing | Pre processing of data should be done | Python |
| 3. | Feature Engineering | Feature engineering of Dataset by adding new values to the existing dataset. | Python |
| 4. | Exploratory Data Analysis | Exploring the data using boxplot, pie plot, scatter plot etc.. | Python |
| 5. | Model Building | Build the model using machine learning algorithm | python |
| 6. | Data Storage | Database Service on Cloud | IBM DB2, IBM Cloudant etc. |
| 7. | User Interface | Dashboard showing the details of the trip duration, no of trips, bike usage etc.. | HTML,CSS, JavaScript. |

Table-2: Application Characteristics:

| S.No | Characteristics | Description | Technology |
|------|--------------------------|--|---|
| 1. | Security Implementations | The main security concern is for users account hence proper login mechanism should be used to avoid hacking. | e.g. SHA-256, Encryptions, IAM Controls, OWASP etc. |
| 2. | Availability | The system shall be available 24 hours a day 7 days a week. User can access at anytime | |
| 3. | Performance | The system should require a fair amount of speed especially while browsing through the catalogue | |