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

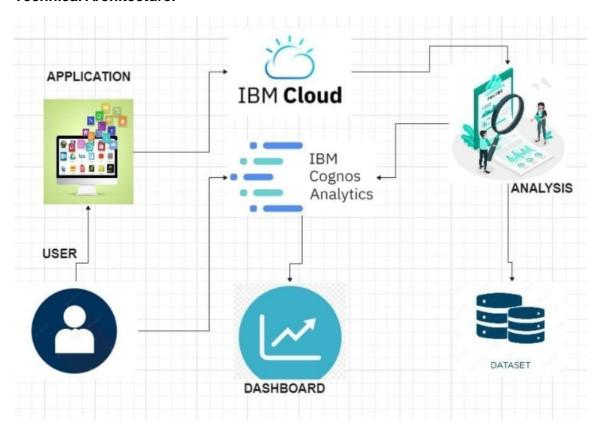| Date | 08 May 2023 |
|---|---|
| Team ID | NM2023TMID17100 |
| Project Name | Unleashing the Potential of Our Youth. A Student Performance Analysis |

**Technical Architecture:**

**Table-1 :**

**Components & Technologies:**

| S.No | Component | Description | Technology |
|------|-----------|-------------|------------|
| 1. | User Interface | How user interacts with application | IBM Cognos Analytics |
| 2. | Working with the dataset | Cleaning, extracting process of dataset is done | IBM Cognos Analytics with Watson |
| 3. | Data Exploration | Information in the dataset is identified | IBM Cognos Analytics with Watson |
| 4. | Data Visualization | Data is represented in form of chart, table and graph in an interactive way | IBM Cognos Analytics with Watson |
| 5. | Outcome of analysis process | The user will see the visualization through dashboards, report and story | IBM Cognos Analytics with Watson |
| 6. | Cloud Database | Uploaded data are stored in the cloud database (Database Service on Cloud) | IBM DB2, IBM Cloud and etc. |
| 7. | Flask | Dashboard, report, story is embedded with Flask | Cloud Flask |

**Table-2 :**

**Application Characteristics:**

| S.No | Characteristics | Description | Technology |
|------|-----------------|-------------|------------|
| 1. | Open-Source Frameworks | List the open-source frameworks used | IBM COGNOS With Watson, IBM CLOUD |
| 2. | Security Implementations | Secure storage and access of information | LDAP or Active Directory |
| 3. | Scalable Architecture | Supports data in different size | IBM Cloud |
| 4. | Availability | Ability to create complex, multi-page layouts using different data sources. High performance data access across all sources. Complete connectivity regardless of environment. | WebSphere Application Server, Cognos® Business Intelligence server |
| 5. | Performance | Large amount of information can be processed | 31BM Cognos Performance Management Hub (PMHub) |