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

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| Date | 15 October 2022 |
| Team ID | PNT2022TMID35766 |
| Project Name | Project-Car Resale Value Prediction |
| Maximum Marks | 4 Marks |

**Technical Architecture:**

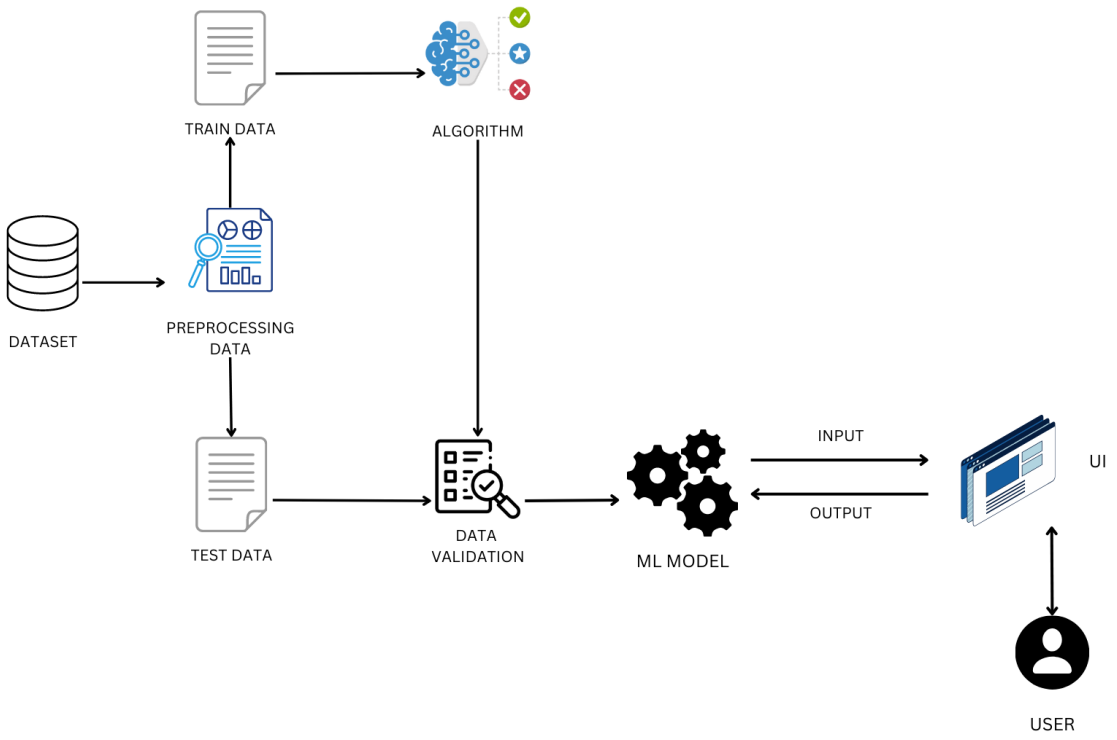

**Table-1 : Components & Technologies:**

| S.No | Component | Description | Technology |
|---|---|---|---|
| 1. | User Interface | How user interacts with application:<br>Web UI | HTML, CSS, JavaScript |
| 2. | Details of Car | How The User Inputs Data About The Car To Be Resold | Python |
| 3. | Database | Data Type, Configurations etc. | MySQL |
| 4. | Cloud Database | Database Service on Cloud | IBM DB2, IBM Cloudant etc. |
| 5. | File Storage | File storage requirements | IBM Block Storage |
| 6. | Machine Learning Model | Used for Predicting Car Resale Value | car resale value predictor |
| 7. | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud<br>Local Server Configuration<br>Cloud Server Configuration | Local |

**Table-2: Application Characteristics:**

| S.No | Characteristics | Description | Technology |
|---|---|---|---|
| 1. | Open-Source Frameworks | Web framework built on Python that uses the model-template-views design principle. | Django |
| 2. | Security Implementations | Security of the database and ML model | Encryptions |
| 3. | Scalable Architecture | As a result of the application servers' ability to be i nstalled on numerous machines, increased scalabi lity is the primary benefit of three tier architecture. | Three -tier architecture |
| 4. | Availability | One of the simplest methods to speed up page loads and decrease response times for any web app is to use caching. | Flask-Caching |

| S.No | Characteristics | Description | Technology |
|---|---|---|---|
| 5. | Performance | Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc. | Flask-caching |