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

| Date | 25 June 2025 |
|---------------|-----------------------------------------------------------------------------------------|
| Team ID | LTVIP2025TMID51528 |
| Project Name | Strategic Product Placement Analysis: Unveiling Sales Impact with Tableau Visualization |
| Maximum Marks | 4 Marks |

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table 1 & table 2

Technical Architecture:



Table-1: Components & Technologies:

| S.No | Component | Description | Technology | |
|------|------------------------|-----------------------------------|------------------------------|--|
| 1 | User Interface | Final dashboard seen by end users | Tableau Public, HTML, Flask | |
| 2 | Data Source | Housing dataset source | Google Drive / Local CSV | |
| 3 | Data Collection | Gathering dataset for analysis | Manual / Scripted download | |
| 4 | Data Preparation | Cleaning & transformation | Tableau Prep | |
| 5 | Data Visualization | Building charts & visuals | Tableau Public Desktop | |
| 6 | Dashboard & Story | Visual storytelling with filters | Tableau Story | |
| 7 | Web Integration | Embedding dashboards into UI | Flask (Python Web Framework) | |
| 8 | Hosting Infrastructure | Hosting the Flask app | Localhost / Web server | |

Table-2: Application Characteristics:

| S.No | Characteristics | Description & Technology |
|------|--------------------------|-----------------------------------------------------------|
| 1 | Open-Source Frameworks | Tableau Public, Flask |
| 2 | Security Implementations | Dataset access via local storage or private Tableau links |
| 3 | Scalable Architecture | Layered and modular architecture flow |
| 4 | Availability | Accessible via Tableau Cloud and Flask Web App |
| 5 | Performance | Optimized Tableau dashboards using filters and cache |