Project Design Phase-I
Solution Architecture

Date	23 October 2023
Team ID	PNT2023TMID591251
Project Name	Vande Bharat Express: Pioneering India's High-Speed Rail Journey
Maximum Marks	20 Marks

Solution Architecture:

Finding the Best Tech Solution:
The project utilizes a solution architecture that incorporates data analytics, visualization, and web integration tools such as Tableau and Flask. This aligns with the goal of finding the best tech solution to address the existing business problems associated with the Vande Bharat Express. By leveraging these technologies, the project aims to optimize the operational efficiency and user experience of the high-speed train.

Describing Structure and Characteristics:
In the context of the project, the solution architecture describes the structure and characteristics of the software components used for data collection, preparation, visualization, and web integration. It outlines how these components interact to provide a comprehensive view of the Vande Bharat Express, including technical performance metrics and passenger-related data.
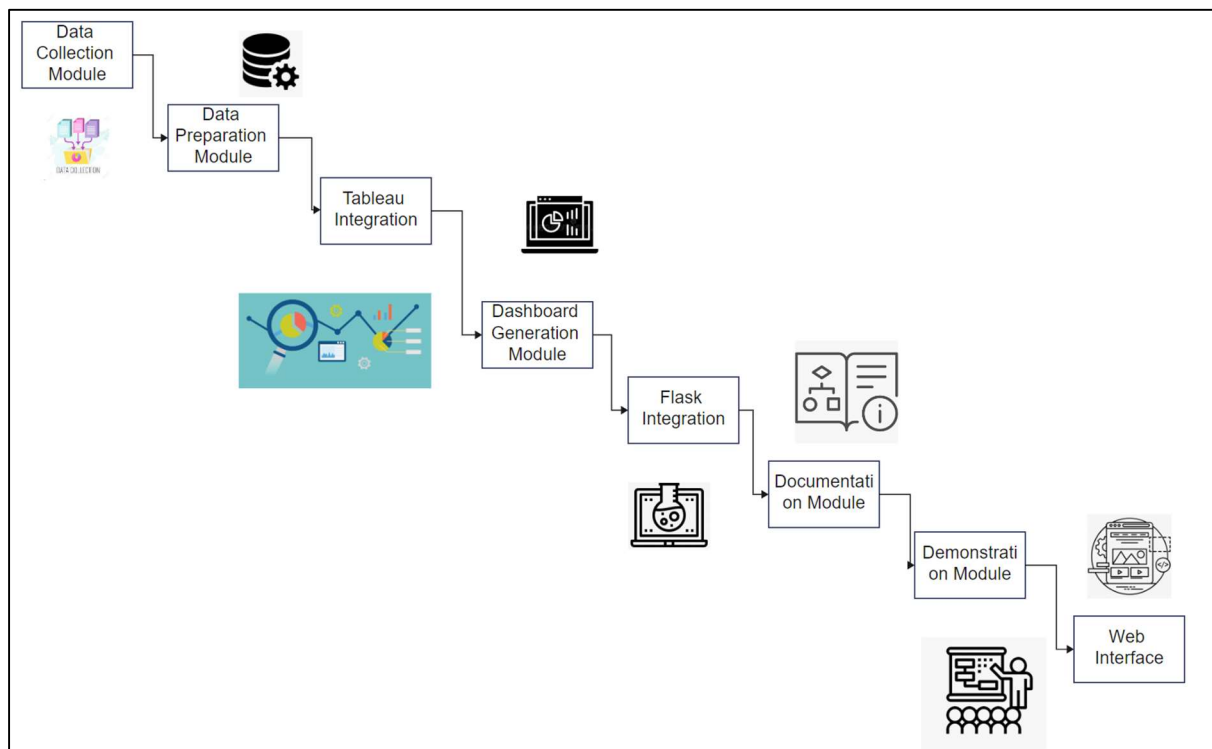
Defining Features, Development Phases, and Requirements:
The solution architecture plays a crucial role in defining the features and development phases of the project. It outlines the various activities such as data collection, preparation, visualization creation, web integration, and documentation. Additionally, it sets forth the specific requirements that need to be addressed to achieve the project's goals, including considerations for data accuracy, completeness, and user interaction.

Providing Specifications for Solution Management:
The solution architecture provides specifications that guide the management and delivery of the project. This includes defining the steps involved in each milestone, specifying the tools and technologies to be used, and outlining the overall project development procedure. These specifications serve as a roadmap for the project team, ensuring a structured and well-managed approach to the implementation of the solution.

Solution Architecture Diagram

In summary, the solution architecture for this project aligns with the overarching goals of finding the best tech solution, describing software structure and characteristics, defining features and development phases, and providing specifications for effective solution management and delivery.