

Project Design Phase Solution Architecture

Date	15 February 2025
Team ID	LTVIP2026TMIDS79606
Project Name	online payments fraud detection using machine learning
Maximum Marks	4 Marks

Solution Architecture:

The solution architecture defines the structure and workflow of the Online Payment Fraud Detection System. It integrates a machine learning model with a web-based application to provide real-time fraud detection.

The architecture bridges the gap between online payment users and intelligent fraud detection using a layered design approach.

The goals of the solution architecture are:

- Identify and detect fraudulent transactions accurately using machine learning.
- Provide real-time fraud prediction through a web interface.
- Ensure modular and scalable system design.
- Maintain system reliability and fast response time.
- Enable future integration with banking systems and payment gateways.

Example - Solution Architecture Diagram:

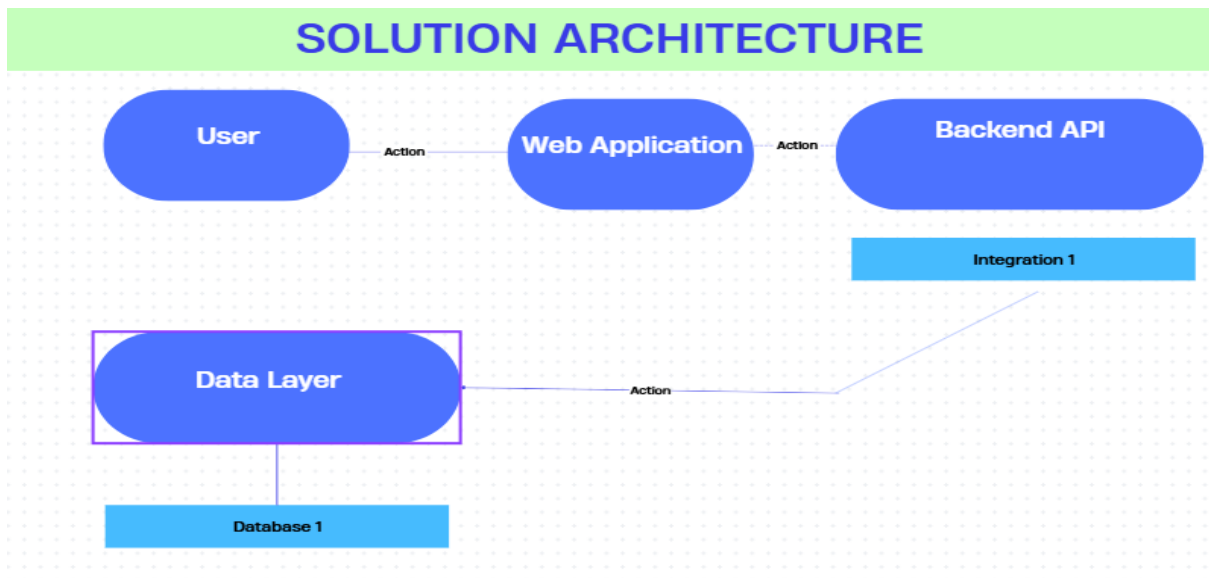


Figure 1: Architecture and data flow of the online payments fraud detection using machine learning

Reference: <https://aws.amazon.com/blogs/industries/voice-applications-in-clinical-research-powered-by-ai-on-aws-part-1-architecture-and-design-considerations/>

