Technology Stack (Architecture & Stack)

Date: 24 June 2025

Team ID:**LTVIP2025TMID31109**

Project Name: **Field Service WorkOrder Optimization**

Technical Architecture:

The architecture for "Field Service WorkOrder Optimization" is designed using the Salesforce Platform. It leverages standard and custom Salesforce objects (Technician, WorkOrder, Assignment), Lightning Components, Apex logic, triggers, reports, and dashboards.

Architecture Overview:
- User Interface (UI): Salesforce Lightning UI
- Application Logic: Apex Classes and Triggers (WorkOrderClass, AssigningEmail, CompletionMail, RecordDeletions)
- Storage: Salesforce Cloud Object Storage
- Deployment: Entirely on Salesforce Cloud Platform
- External API (Email Service): Salesforce's internal Messaging service for email notifications
- Automation: Scheduled Apex Jobs for cleanup tasks
- Analytics: Dashboards and Reports for monitoring assignment and status

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1	User Interface	Salesforce Lightning Experience UI	Salesforce Lightning UI
2	Application Logic-1	WorkOrder assignment automation logic	Apex Classes (WorkOrderClass)
3	Application Logic-2	Email notifications to technicians	Apex Classes (AssigningEmail)
4	Application Logic-3	Completion mail on status update	Apex Classes (CompletionMail)
5	Database	Custom Objects (WorkOrder,	Salesforce Object

		Technician, Assignment)	Storage
6	Cloud Database	Same as above	Salesforce Platform Cloud
7	File Storage	N/A	N/A
8	External API-1	Internal email messaging system	Messaging.sendEmail() API
9	External API-2	Not used	N/A
10	Machine Learning Model	Not applicable	N/A
11	Infrastructure	Fully cloud-based deployment on Salesforce Platform	Salesforce Platform Cloud

Table-2: Application Characteristics:

S.No	Characteristics	Technology
1	Open-Source Frameworks	N/A
2	Security Implementations	Salesforce IAM, FLS, Profiles
3	Scalable Architecture	Salesforce Apex + Triggers
4	Availability	Salesforce Infrastructure
5	Performance	Apex Batch Jobs, Efficient Queries

References:

https://c4model.com/

https://www.ibm.com/cloud/architecture

https://developer.salesforce.com/

https://trailhead.salesforce.com/