

## Project Requirement Analysis Phase Technology Stack (Architecture & Stack)

Date	24 June 3035
Team ID	LTVIP2025TMID29797
Project Name	Workforce Administration Solution(dev)
Maximum Marks	4 Marks

### Technical Architecture:

#### High-Level Architecture Overview

A workforce administration solution's high-level architecture typically involves several key components that work together to manage and optimize an organization's workforce. These include strategic planning, forecasting, scheduling, staffing, and performance management, all underpinned by a robust data infrastructure and integration with other business systems.

##### ◆ 1. Presentation Layer (User Interfaces)

- **Web Portals:** Employee, Manager, and HR portals built using Salesforce Experience Cloud
- **Mobile Access:** Supported via Salesforce Mobile App
- **Self-Service Dashboards:** Personalized views for different user roles

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##### ◆ 2. Application Layer (Core Business Logic)

- **Salesforce Platform Services:**
  - **Lightning Components**
  - **Apex Triggers & Classes**

- **HR Modules:**
    - **Employee Profile Management**
    - **Leave & Attendance Tracking**
    - **Performance Management**
    - **Document & Compliance Tracking**
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### ◆ **3. Data Layer**

- **Standard and Custom Salesforce Objects for:**
    - **Employee records**
    - **Leave requests**
    - **Performance logs**
    - **Attendance entries**
  - **File Storage: Salesforce Files or external (e.g., AWS S3, SharePoint)**
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### ◆ **4. Integration Layer**

- **MuleSoft or REST/SOAP APIs to connect with:**
    - **Payroll Systems**
    - **ERP & Finance**
    - **Identity Providers (for SSO)**
  - **Salesforce Connect for real-time external data access**
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- ◆ **5. Analytics & Reporting Layer**
    - **CRM Analytics (Tableau CRM) for:**
      - **Workforce metrics**
      - **Attrition & performance trends**
      - **Custom dashboards and KPIs**
    - **Scheduled Reports for HR and leadership**
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- ◆ **6. Security & Governance**
    - **Role-Based Access Control (RBAC)**
    - **Salesforce Shield for encryption and monitoring**
    - **Audit Trail & Field History**
    - **Compliance with GDPR, SOC 2, ISO 27001**
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## **2. Architecture Components**

Layer	Component
User Interface	Salesforce Experience Cloud (for employee & manager portals)
Application Logic	Salesforce Platform (Lightning Components, Apex Controllers)
Process Automation	Salesforce Flow, Process Builder, Approval Processes, Workflow Rules

Layer	Component
Data Layer	Custom & Standard Objects (e.g., Employee, Leave, Attendance, Review)
Analytics & Reports	Salesforce CRM Analytics (Tableau CRM), Dashboards, Scheduled Reports
Integration Layer	MuleSoft, Salesforce Connect, External Services, REST/SOAP APIs
Authentication	Salesforce Identity, Single Sign-On (SSO), OAuth 2.0
Security	Salesforce Shield, Field-Level Security, Role-Based Access Control (RBAC)
Mobile Access	Salesforce Mobile App (Lightning Mobile SDK support)
Document Storage	Salesforce Files, External Doc Storage Integration (e.g., SharePoint, AWS)

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### 3. Key Integrations

System	Integration Method	Purpose
Payroll System	MuleSoft / REST API	Sync employee details, leave data, benefits
ERP/Finance	Salesforce Connect or Custom API	Cost allocation, salary budgeting
Email / Calendar	Salesforce + Outlook/Gmail Connector	Meeting scheduling, interview tracking

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### 4. Security & Compliance

- Role-based access control (profiles, permission sets)
- Field-level and object-level security
- Data encryption (Salesforce Shield)

