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

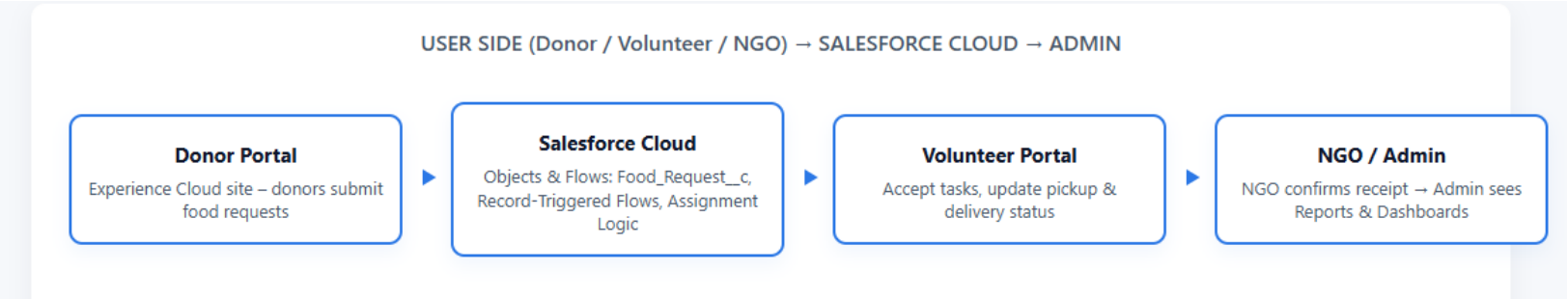
Date	01 NOVEMBER 2025
Team ID	NM2025TMID09002
Project Name	To Supply Leftover Food to Poor
Maximum Marks	4 Marks

Technical Architecture:

The deliverable includes the architecture diagram and the details aligned with Table-1 & Table-2

for the project: "To Supply Leftover Food to Poor".

Example Reference: Food Donation & Distribution Process using Salesforce



Guidelines Followed:

✓ **Included all major processes as technology blocks (Donor → Volunteer → NGO → Admin)**
✓ **Infrastructural demarcation clearly defined (Salesforce Cloud / Optional External Services)**
✓ **Added external interfaces (SMS API, Maps API, Email Service, WhatsApp API)**
✓ **Included Data Storage components (Salesforce Objects, Files, Logs)**
✓ **Added optional Machine Learning integration (Einstein Prediction Builder / External ML API)**

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Donor, Volunteer, NGO, Admin access via Salesforce Experience Cloud site	Salesforce Experience Cloud (Digital Experience)
2.	Custom Data Objects	Store donors, volunteers, NGOs, food requests, delivery status	Custom Objects: Donor__c,Volunteer__c, NGO__c, Food_Request__c
3.	Application Logic – Request Submission	Donor submits leftover food details (quantity, location, expiry time)	Salesforce Screen Flow
4.	Application Logic – Assignment	System auto-assigns nearest volunteer based on location & availability	Record-Triggered Flow + Assignment Rules
5.	Process Automation	Status update, pickup, delivery, completion workflow	Salesforce Flow + Approval + Record Updates
6.	Notifications	Email / SMS alerts to Donor, Volunteer, NGO	Email Alert + Twilio / MSG91 (via Named Credentials)
7.	File Storage	Food photos, delivery proof attachments	Salesforce Files / ContentDocument
8.	Database Storage	All records stored inside Salesforce platform	Salesforce Object Storage (Multi-Tenant DB)
9.	External API Integration	For SMS, WhatsApp, Google Maps distance API	Named Credentials + External Services
10.	Security Layer	Role-based access control (Donor, Volunteer, NGO, Admin)	Profiles, Permission Sets, Sharing Rules
11.	Deployment	Fully cloud-hosted; no servers required	Salesforce SaaS Platform

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Not applicable (Salesforce is a proprietary cloud platform)	-
2.	Security Implementations	Role-based access control for Donor, Volunteer, NGO, Admin	Profiles, Permission Sets, Sharing Rules
3.	Scalable Architecture	SaaS-based, auto-scalable multi-tenant cloud environment	Salesforce Cloud Architecture
4.	Availability	Highly available (99.9% uptime, managed by Salesforce)	Salesforce SaaS (Load-balanced Instances)

5.	Performance	Fast execution using Flows, indexed object storage, real-time processing	Salesforce Lightning Platform + Flow Builder