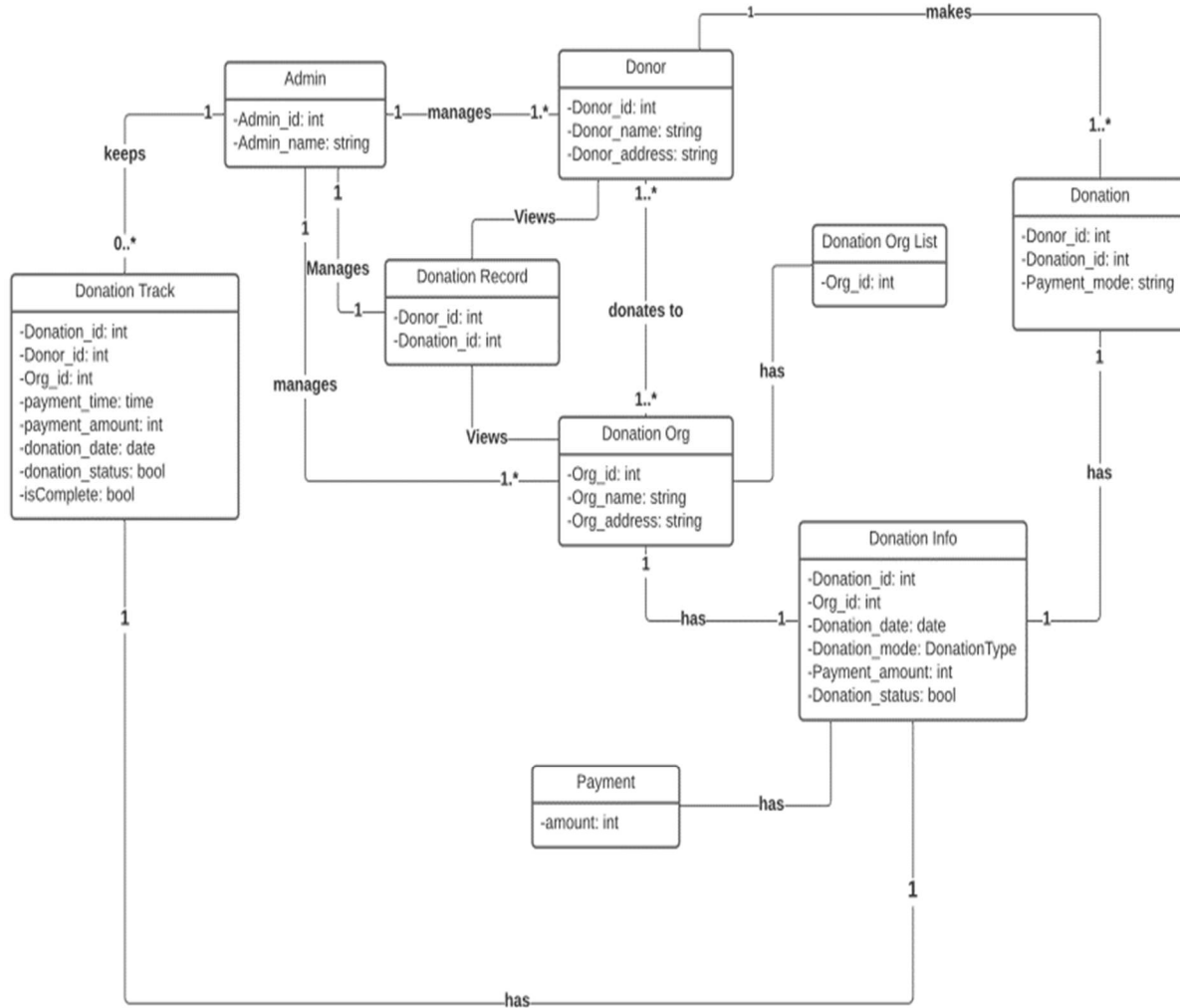# OOAD Project

Project Deliverable 2

Topic:

My Donation App

Team Members:
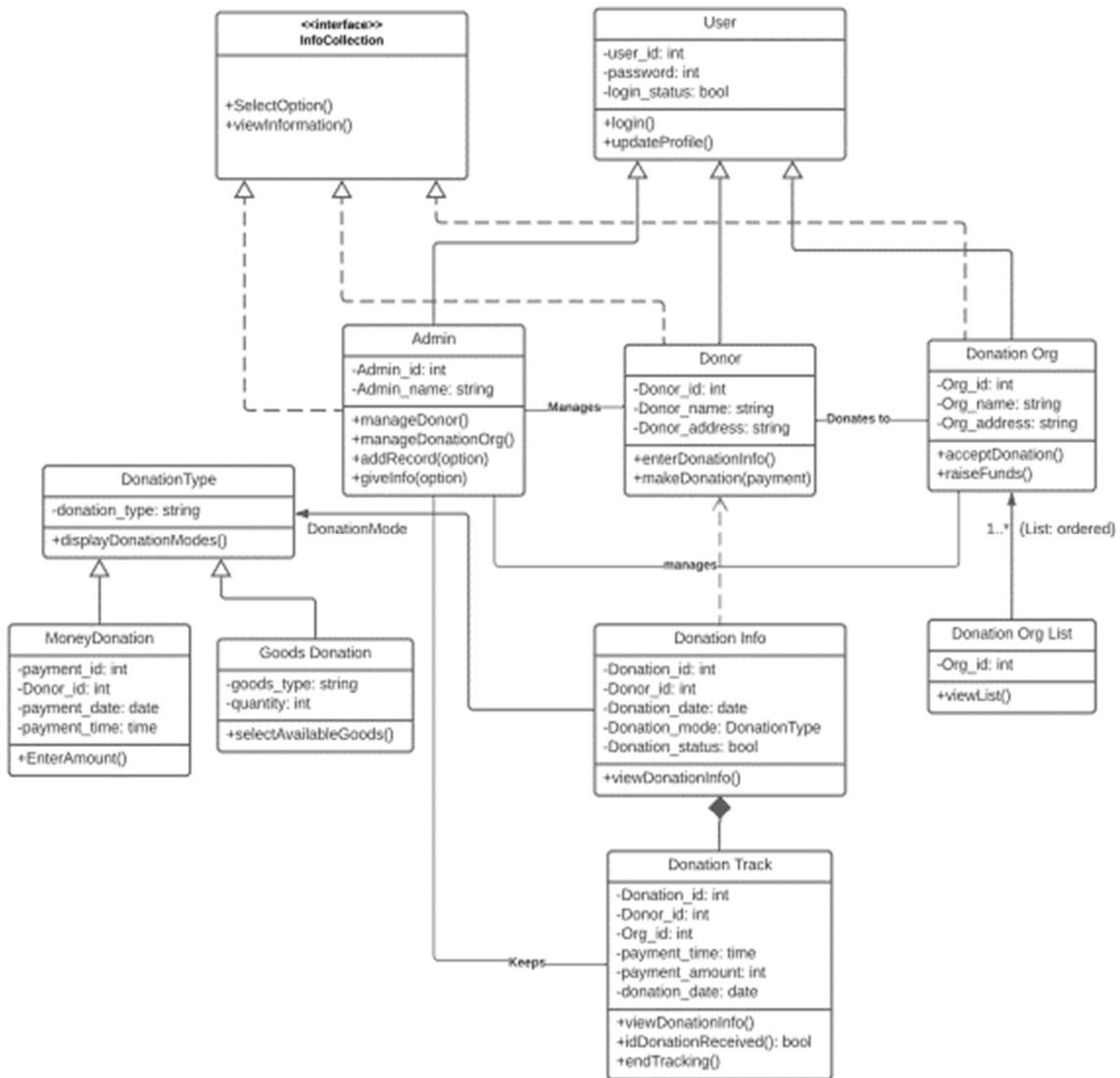
• Atif Iqbal Butt (bsef19m001)

• Saad Rahman (bsef19m021)

• Usman Arshad (bsef19m038)

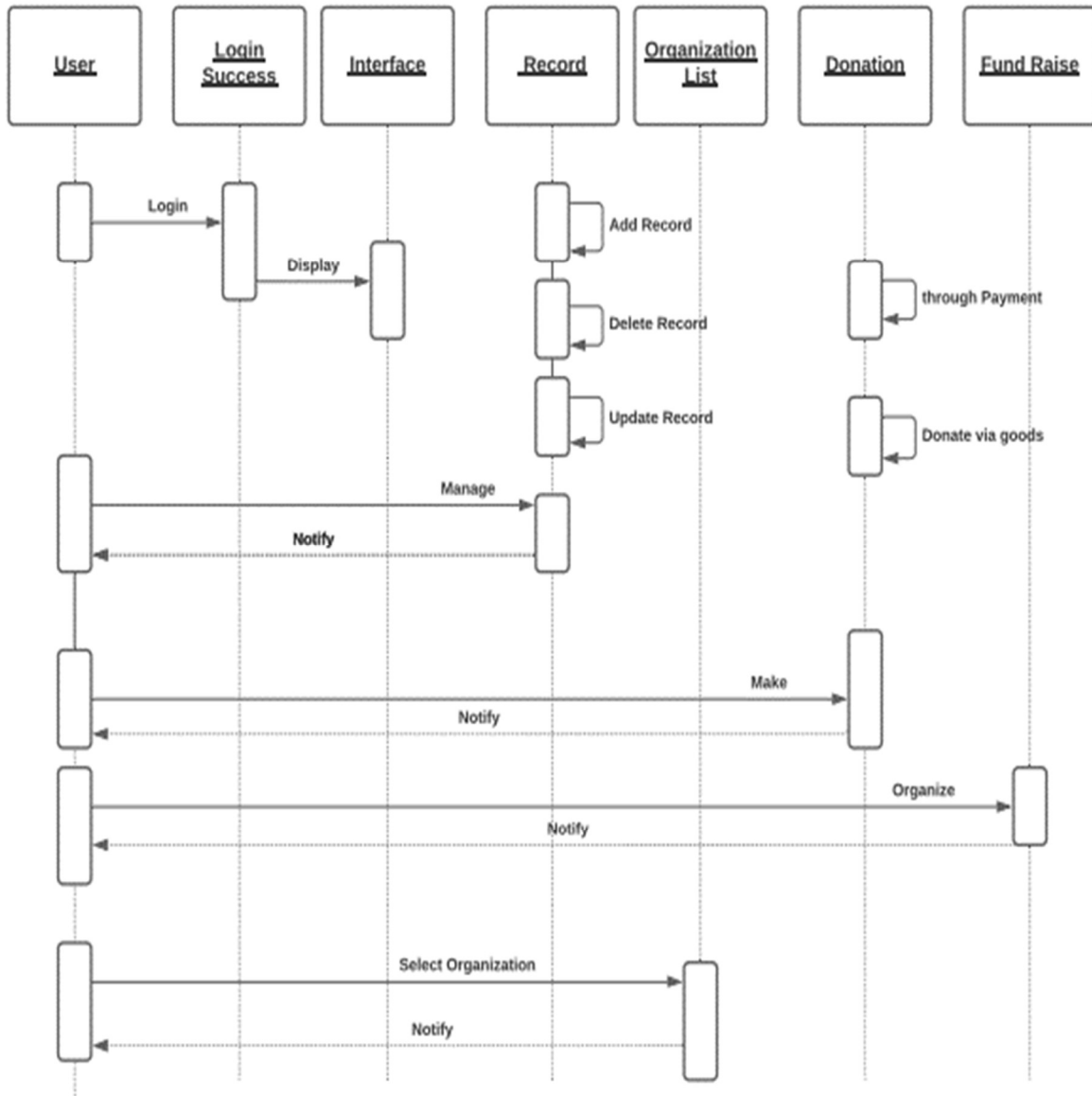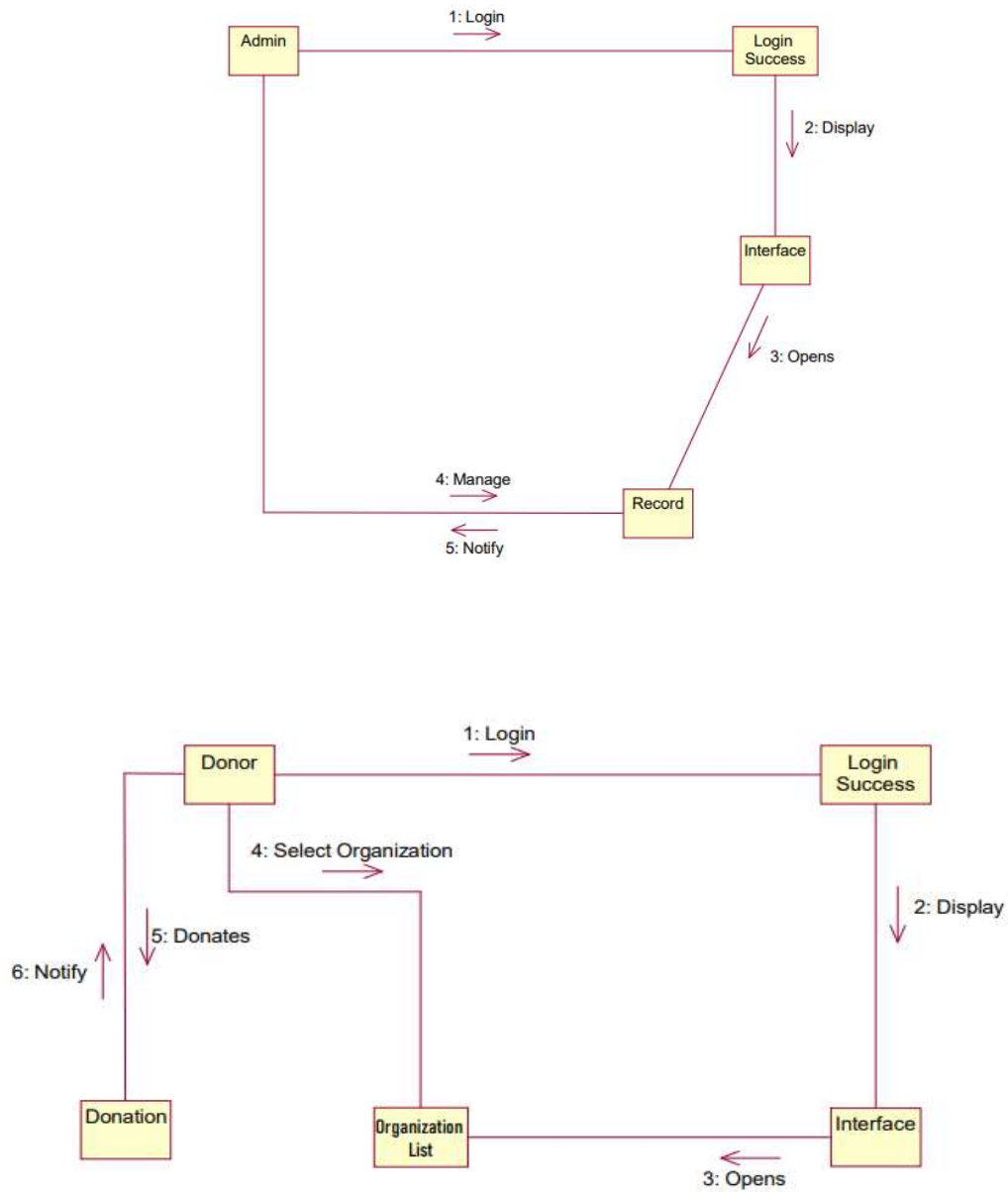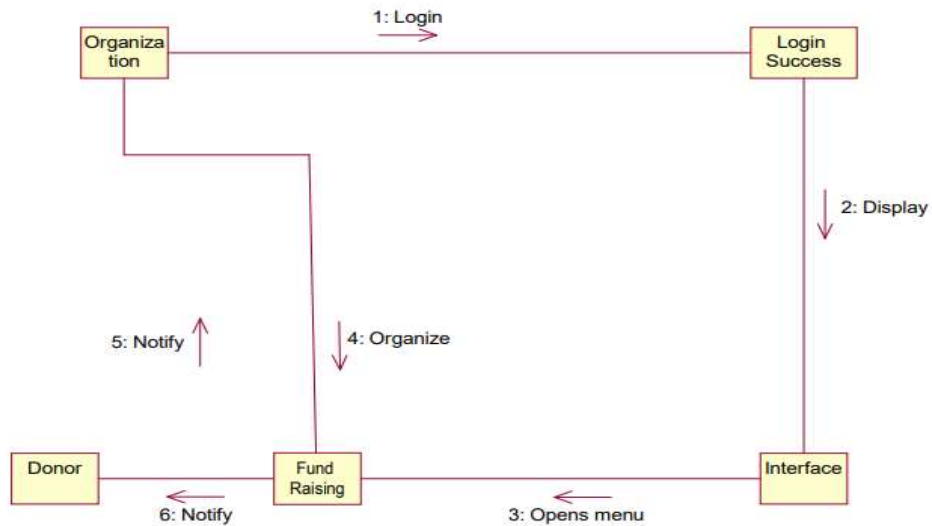# Domain Model

Admin
- Admin_id: int
- Admin_name: string

Donor
- Donor_id: int
- Donor_name: string
- Donor_address: string

Donation
- Donor_id: int
- Donation_id: int
- Payment_mode: string

Donation Record
- Donor_id: int
- Donation_id: int

Donation Org List
- Org_id: int

Donation Track
- Donation_id: int
- Donor_id: int
- Org_id: int
- payment_time: time
- payment_amount: int
- donation_date: date
- donation_status: bool
- isComplete: bool

Donation Org
- Org_id: int
- Org_name: string
- Org_address: string

Donation Info
- Donation_id: int
- Org_id: int
- Donation_date: date
- Donation_mode: DonationType
- Payment_amount: int
- Donation_status: bool

Payment
- amount: int

Relationships:
- Admin 1 — keeps — 0..* Donation Track
- Admin 1 — manages — 1..* Donor
- Admin 1 — Manages — 1 Donation Record
- Admin 1 — manages — 1..* Donation Org
- Donor 1 — makes — 1..* Donation
- Donor — Views — 1..* (Donation Record)
- Donor 1..* — donates to — 1..* Donation Org
- Donation Record — Views — Donation Org
- Donation Org — has — Donation Org List
- Donation Org 1 — has — 1 Donation Info
- Donation 1 — has — 1 Donation Info
- Payment — has — Donation Info
- Donation Track 1 — has — 1 (Payment/Donation Info)

Design Class Diagram

<<interface>>
InfoCollection

+SelectOption()
+viewInformation()

User

-user_id: int
-password: int
-login_status: bool

+login()
+updateProfile()

Admin

-Admin_id: int
-Admin_name: string

+manageDonor()
+manageDonationOrg()
+addRecord(option)
+giveInfo(option)

Donor

-Donor_id: int
-Donor_name: string
-Donor_address: string

+enterDonationInfo()
+makeDonation(payment)

Manages

Donates to

Donation Org

-Org_id: int
-Org_name: string
-Org_address: string

+acceptDonation()
+raiseFunds()

DonationType

-donation_type: string

+displayDonationModes()

DonationMode

1..* {List: ordered}

manages

MoneyDonation

-payment_id: int
-Donor_id: int
-payment_date: date
-payment_time: time

+EnterAmount()

Goods Donation

-goods_type: string
-quantity: int

+selectAvailableGoods()

Donation Info

-Donation_id: int
-Donor_id: int
-Donation_date: date
-Donation_mode: DonationType
-Donation_status: bool

+viewDonationInfo()

Donation Org List

-Org_id: int

+viewList()

Donation Track

-Donation_id: int
-Donor_id: int
-Org_id: int
-payment_time: time
-payment_amount: int
-donation_date: date

+viewDonationInfo()
+idDonationReceived(): bool
+endTracking()

Keeps

Sequence Diagram

User	Login Success	Interface	Record	Organization List	Donation	Fund Raise

Login → (Login Success)

Display → (Interface)

Add Record (Record)

Delete Record (Record)

Update Record (Record)

through Payment (Donation)

Donate via goods (Donation)

Manage → (Organization List)

Notify ←

Make → (Donation)

Notify ←

Organize → (Fund Raise)

Notify ←

Select Organization → (Organization List)

Notify ←

Collaboration Diagram

Admin —— 1: Login —→ Login Success

Login Success —— 2: Display —→ Interface

Interface —— 3: Opens —→ Record

Record —— 4: Manage —→ Admin

Admin ←— 5: Notify —— Record

Donor —— 1: Login —→ Login Success

Login Success —— 2: Display —→ Interface

Interface —— 3: Opens —→ Organization List

Organization List —— 4: Select Organization —→ Donor

Donor —— 5: Donates —→ Donation

Donation —— 6: Notify —→ Donor

System Sequence Diagram

Risk:

Simple Donation Tracking Scenario

1) Admin gets the donation Id to track the donation process
2) System returns the donation id
3) Admin views the donation info by providing donation id
4) System displays the donation info
5) Admin checks if donation is pending or received by the particular donation organization
6) System returns the Donation Status
7) Admin ends the tracking process
8) Admin notifes the donor about the donation status

Business Value:

Simple Donation Process scenerio

1) Donor logins the app and gets verified
2) Donor requests to system to view the list of donation organization
3) System displays the requested list
4) Donor selects the specific donation organiztion from list for donation
5) Donor makes donation and enters amount
6) System handles the payment
7) System notifies the donor

Donor

:System

RequestToViewOrgList()

DisplayList

SelectOrg(Org_id)

MakeDonation(payment)

Notify
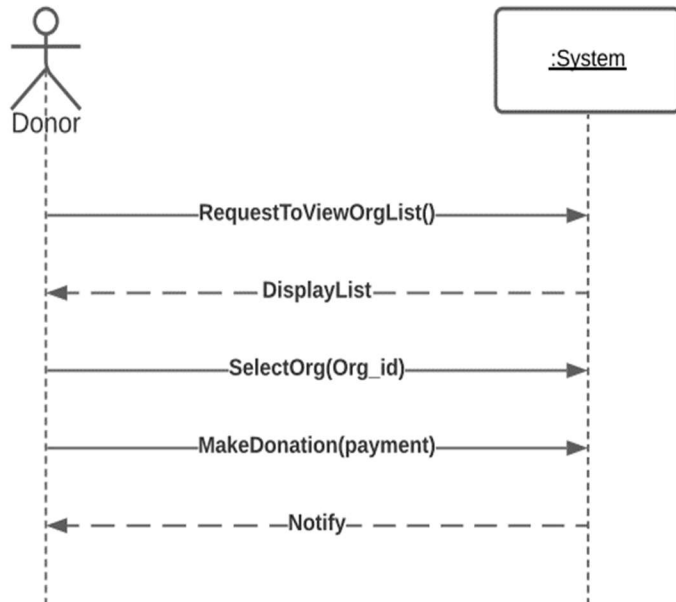
Architecture:

Simple Add record to system scenario

1) Admin selects the particular option (donor, organization) to add the record
2) System displays "add info" form of selected option
3) Admin provides the required info like id, name
4) System adds the record to database
5) System notifes the admin after adding the record

Admin

:System

SelectOption()

Display "add info" form

GiveRequiredInfo(option.id,option.name)

AddToDB()

Notify
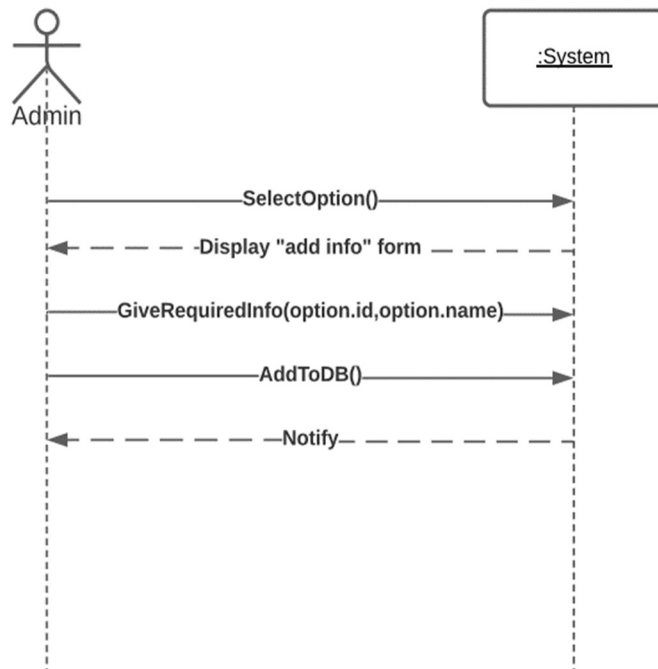
Use Case Contract

Contract C01: Make Donation

Operation:

Make Donation (Payment: money)

Cross Reference:

Use Case: Online Donation

Pre-Condition:

Donor selects the organization for donation.

Post-Condition:

1) Instance of Payment **p** was created (Instance Creation).

2) p.amount became Payment(Attribute Modification).

3)p was associated with Donation Info. (Association) (to add it with the historical log of completed donation)

4)p was associated with donation track (Association).

Contract C02: End Tracking

Operation:

EndTracking( )

Cross-Reference:

Use Case: Track Donation

Pre-Condition:

There is a donation underway.

Post Condition:

Track.isComplete became true (Attribute Modification)

Contract C03: GiveRequiredInfo(option.id, option.name)

Operation:

Give Required Info (Donor d2.Donor_id,Donor d2.Donor_name)

Cross-Reference:

Use Case: Add Record

Pre-Condition:

A new Donor information is received which has to be added in record.

Post-Condition:

1) Instance of donor d1 was created (Instance Creation).

2) d1.Donor_id became d2.Donor_id.

3) d1.Donor_name became d2.Donor_name

MVC
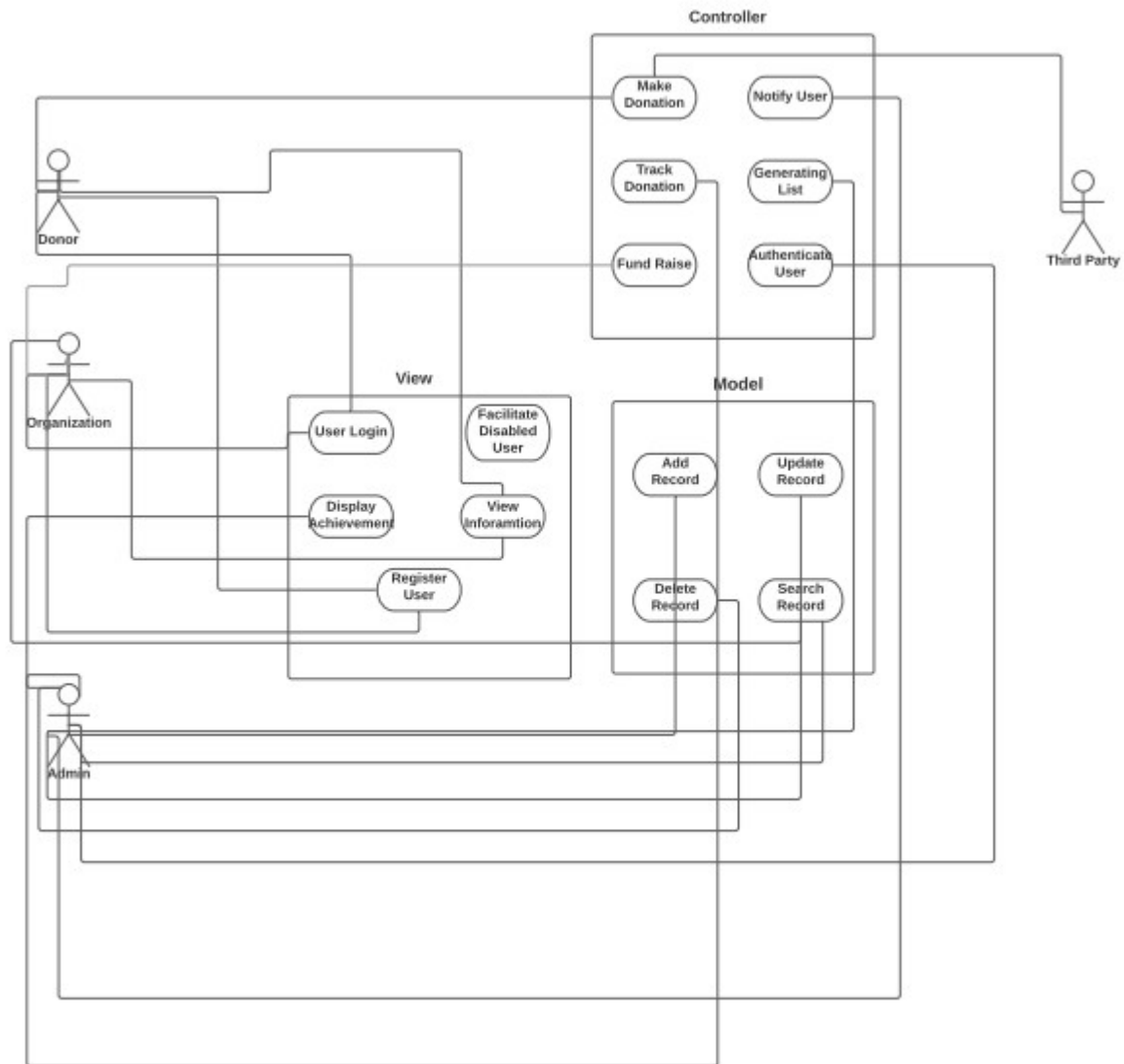
Prototype

Login:

My Donation App

Sign In

👤 Username

🔒 Password

Login

Forgot Password?

Create New Account

My Donation App

Verification

Enter code sent on your email...

___ ___ ___ ___

Authenticate

Resend Code...

Admin Interface:

Donor Interface:
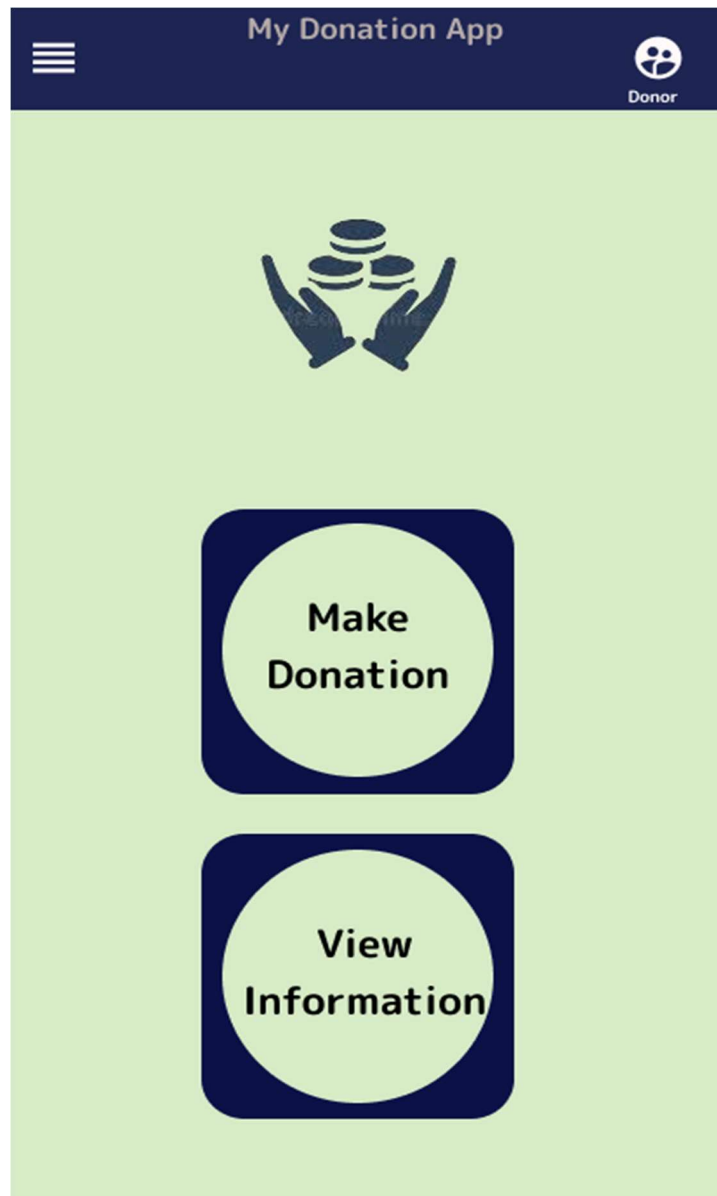
Organization Interface:

Add Record:

My Donation App

≡   Admin

Add Record

Select User...   ⌄

Donor

Organization

Add Donor

Add Name

Add ID

Add Email

Add Address

Add Donor

Update Organization

Add Name

Add ID

Add Email

Add Address

Add Organization

Delete Record:

My Donation App

Admin

Delete Record

Select User...

Donor

Organization

Admin

Delete Donor

Select ID of Donor... ⌄
03451
03452
...

Delete Donor

Delete Organization

Select ID of Organization...	⌄
03451	
03452	
...	

Delete Org

Update Record:

Update Donor

Select ID of Donor... ⌄

Update Name

Update Email

Update Address

Update Donor

Admin

Update Organization

Select ID of Organization... ⌄

Update Name

Update Email

Update Address

Update Org

View Information Donor:

My Donation App

Donor

View Information

Org_ID	Donation_ID	Date
35421	5678	12-10-2019
37832	5321	24-10-2019
35221	2618	02-11-2019
...	...	...
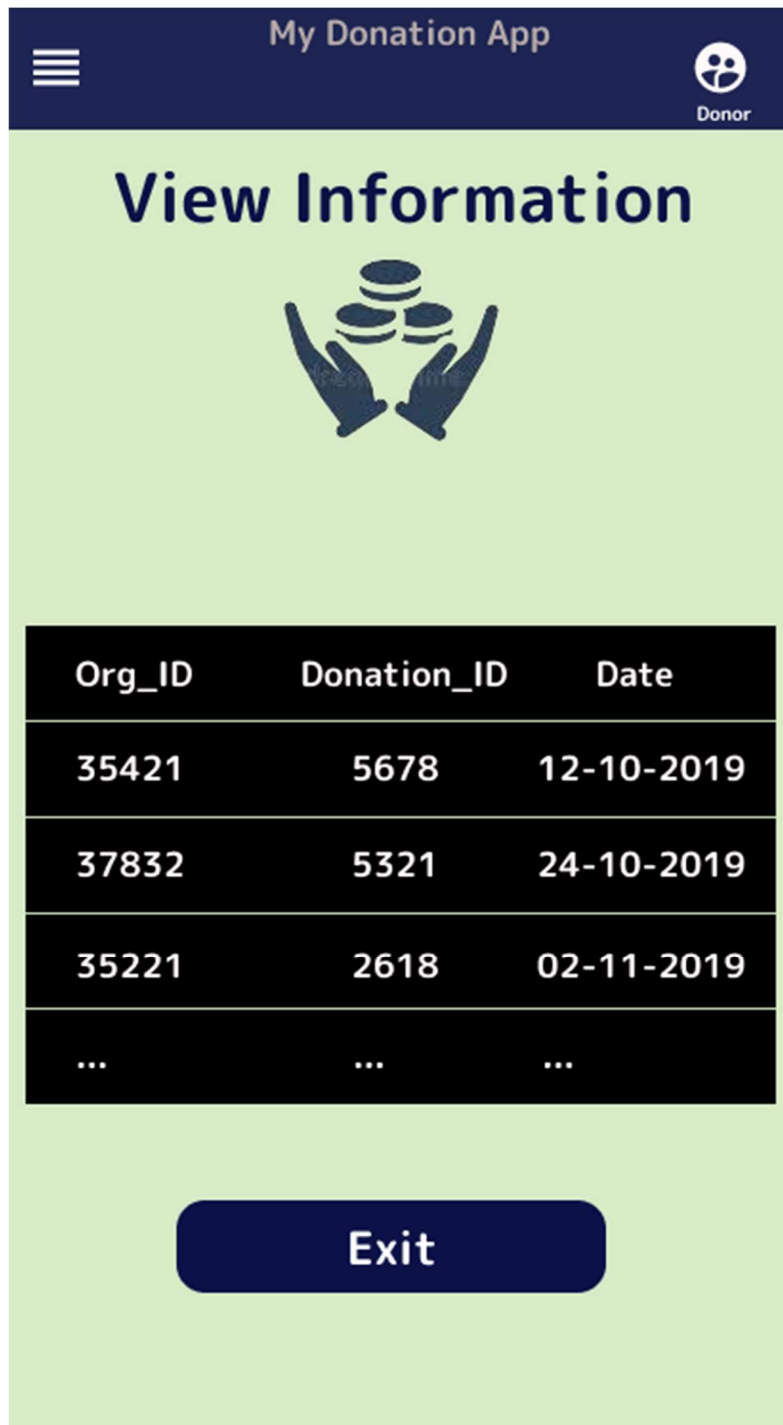
Exit

View Information Organization:
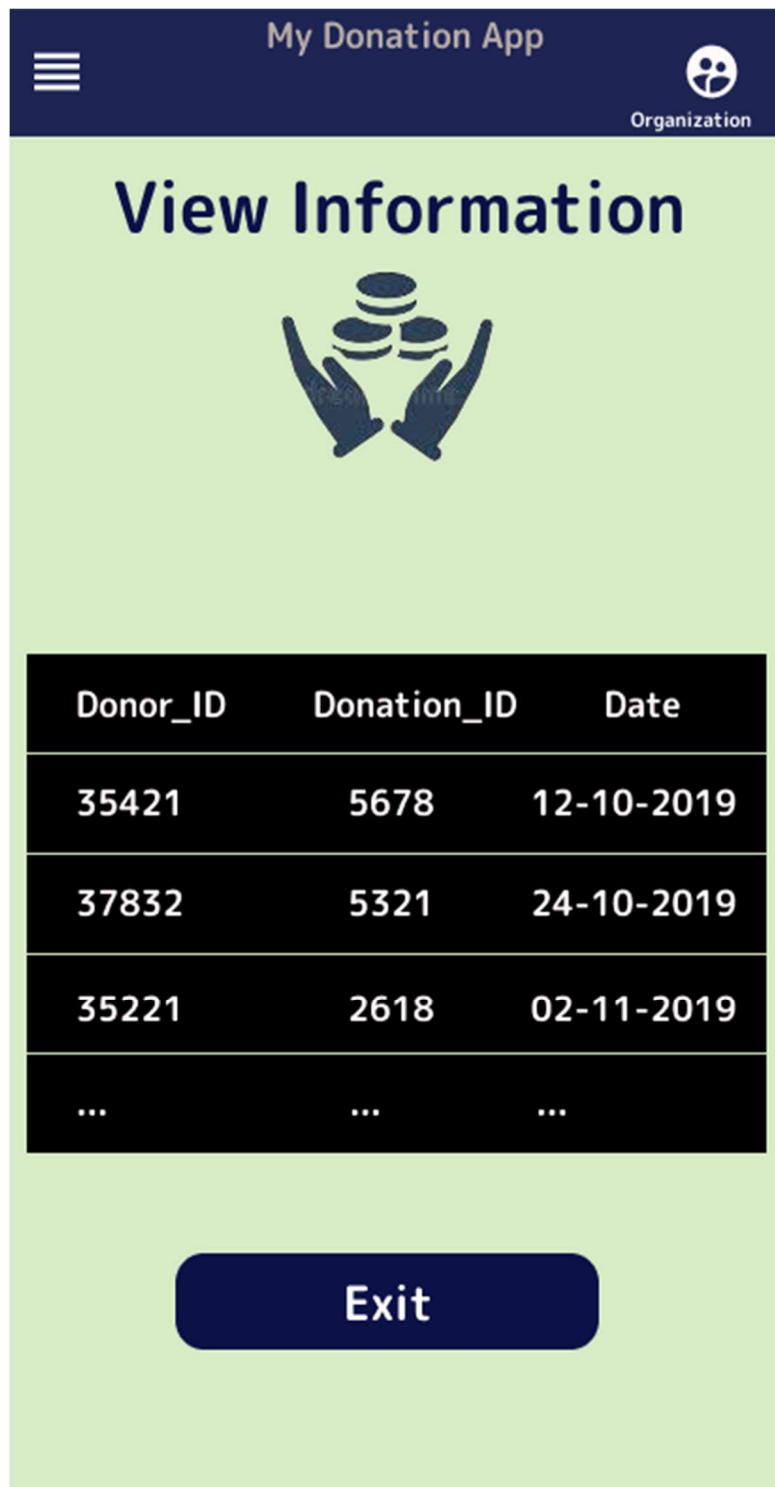
View Information

Donor_ID	Donation_ID	Date
35421	5678	12-10-2019
37832	5321	24-10-2019
35221	2618	02-11-2019
...	...	...

Exit

Track Donation:

Donor

Track Donation

Org_ID	Donation_ID	Donor_ID	Status
35421	5678	1210	True

Exit

Notify Donor

Donation:

Admin

Make Donation

☐ **Donate Cash**

☐ **Donate Goods**

Enter Amount

Card-Number

Bank Name

Card-Expiry

Donate