Ehsan Data Base

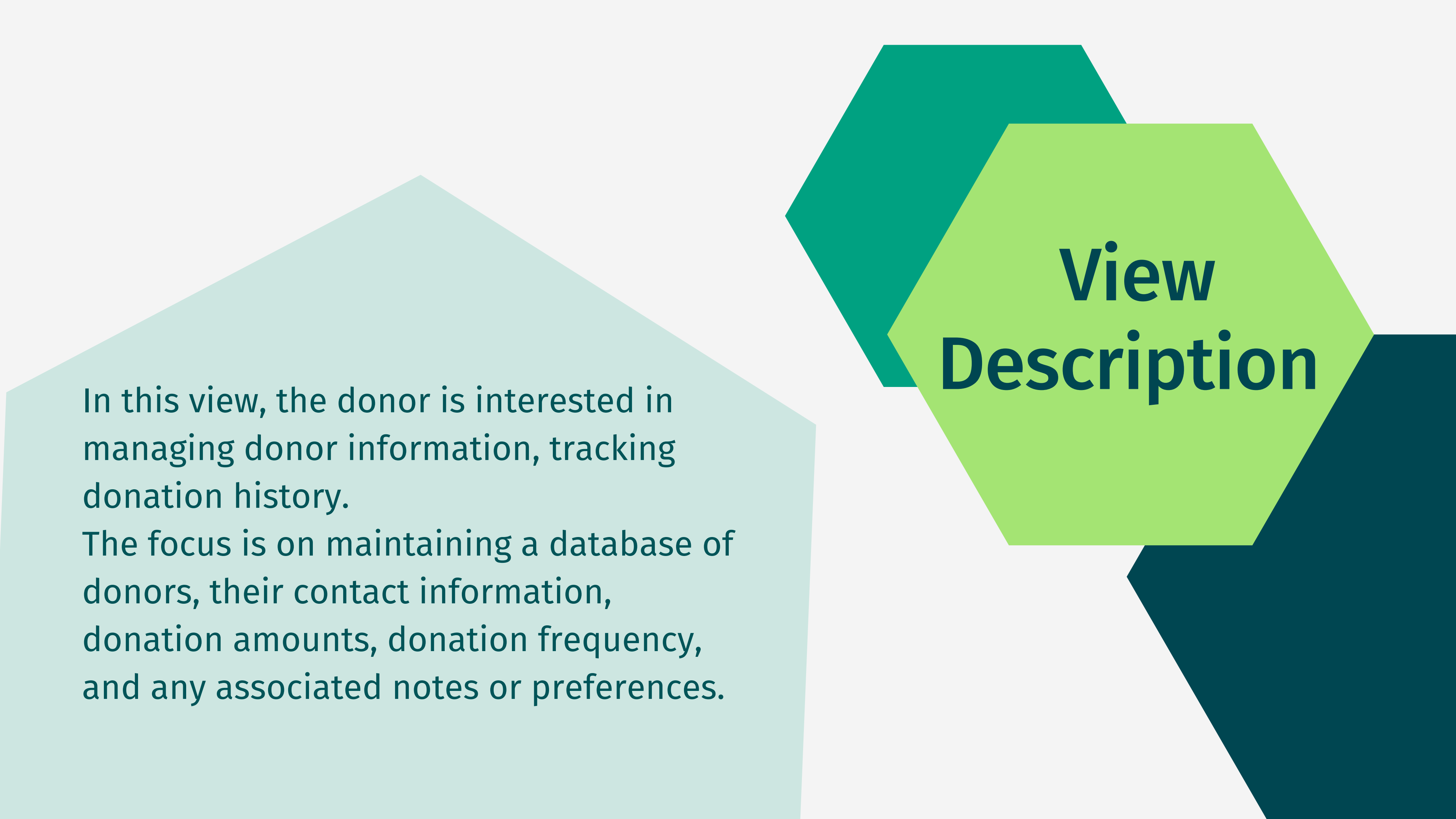Norah Almadhi   Norah Alwasil   Ruba Alshammari   Lama Alkhathlan

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Project description

The Online Donation Management System, proposed for Ehsan platform, aims to enhance donation processes by enabling online contributions, managing donor data, and ensuring transparency and accountability throughout the donation process.

View Description

In this view, the donor is interested in managing donor information, tracking donation history.
The focus is on maintaining a database of donors, their contact information, donation amounts, donation frequency, and any associated notes or preferences.

Data Requirements

Entity: Donor

- **Description:** stores information about donors, including donor ID (PK), Name, Email and phone number.

- **Relation:** Donor donate to multiple institutions (one-to-many).

Entity: Recipient

- **Description:** Records details of individuals or groups who are the recipients of donations, including recipient ID (PK), name, contact information.

- **Relation:** Many recipients can be supported by multiple institutions (many-to-many).

Data Requirements

Entity: institution

- **Description:** Stores information about institutions including institution ID (PK), name, and contact information, Each donor must donate to either financial or non financial donation institution
- **Relation:** An institution can have multiple donors (one-to-many), And supports multiple recipients (one-to-many).

Entity: Financial institution

- **Description:** Represents a sub-entity of the Institution entity, specifically for financial donations.
- **Attributes:** donated amount and payment method

Data Requirements

Entity: Non-Financial institution

- **Description:** Represents a sub-entity of the Institution entity, specifically for non-financial donations, such as clothes donation, food donations and blood donations etc.
- **attributes:** institution type(clothes donation), and the donated item (dress).

Relationship Attribute: Donation

- **Description:** Records details of each donation, including donation date, receipt.
- **Relation:** Occurs when there's a relation between a donor and an institution.

Transaction Requirements

Data Entry

a) Enter details of a new donor such as (abc678910, Ahmed khalid, 123-456-789, Ahmed@email.com)

b) Enter donation details such as ('lmn456789', 'qwe654321', 2024-04-20, '987123654')

Data update/ deletion

a) Update/Delete Phone Number.

b) Update/Delete Email Address.

c) Update/Delete Payment Method.
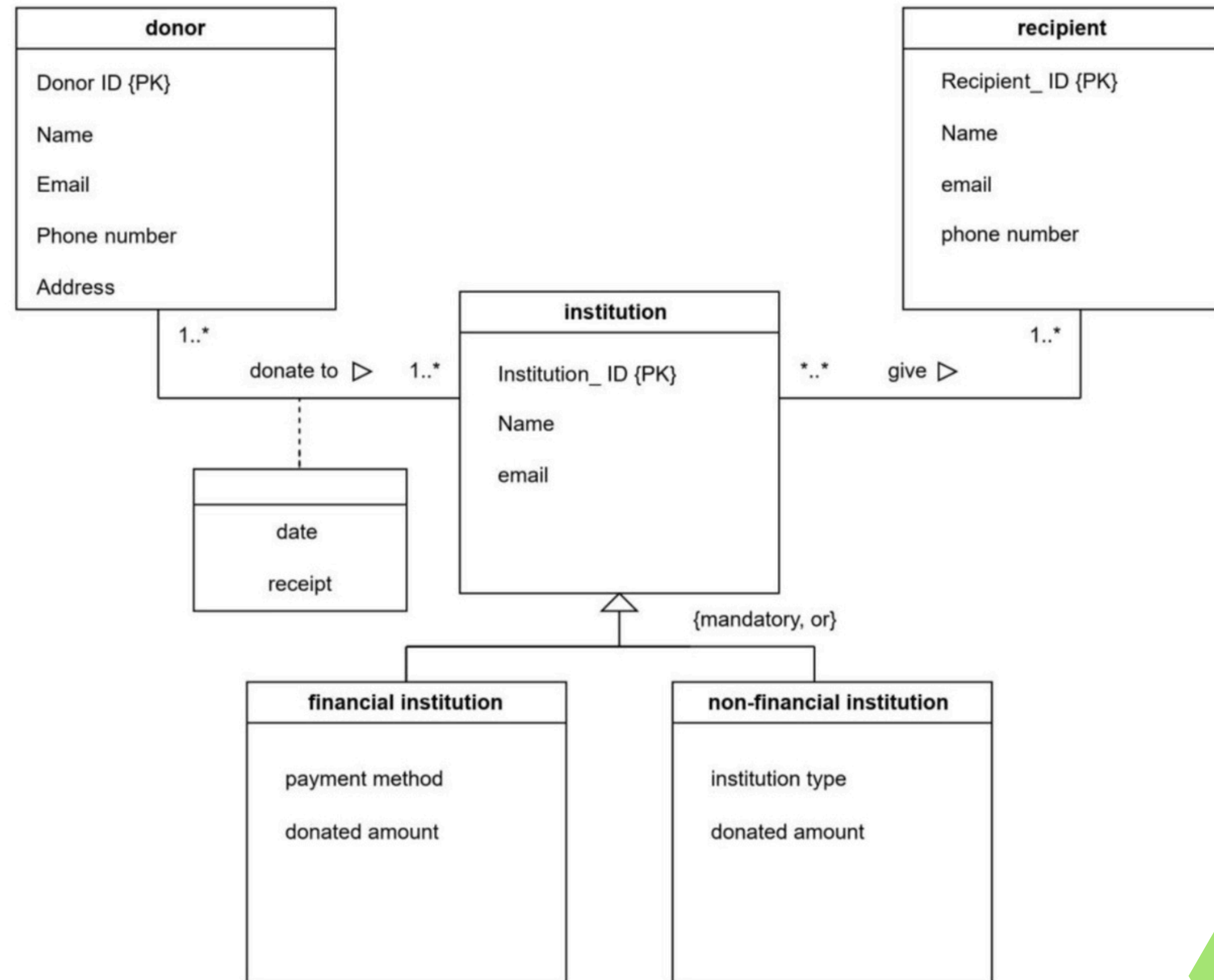
Data Queries

Transaction Requirements

The following queries address the fundamental requirements for retrieving data in our Online Donation Management System. They surround various functionalities designed to streamline donation processes and improve the transparency and efficiency of the system.

These queries will form the basis for constructing reliable relational schemas that effectively support the objectives of our system.

Ex:

1. Retrieve all recipient information
2. Retrieve the total number of financial donation institutions

Relational Schema

Donor : <u>donor ID</u> , name ,email ,phone number address
Primary key : donor ID

Donates to : <u>donor ID</u> , <u>institution ID</u> , date , receipt
Primary key: donor ID , institution ID
Foreign key: donor ID references donor(donor ID)
Foreign key: institution ID references Financial donation
institution(
institution ID)

Recipient : <u>recipient ID</u> , name, email , phone number
Primary key: recipient ID

Relational Schema

give : institution ID , recipient ID
Foreign key: institution ID references Financial donation institution(
institution ID)
Foreign key: recipient ID references recipient(recipient ID)

Financial donation institution: institution ID, email , name payment method,
donated amount
Primary key: institution ID

Relational Schema

Non-financial donation institution : <u>institution ID</u> , email , name , institution
type ,donated item
Primary key: institution ID

Donor

Donor ID	Name	Email
Uniquely identifies a donor	Name of the donor	The email of the donor

Address	Date	Receipt
The address of the donor	The date of when the donation was made	Contains information related to the donation

Phone number
The phone number of the donor

Institution

Institution ID	name	Email
unique identifier for each institution	The name of the institution	The email of the institution

non-Financial Institution

Institution type	Donated amount
the kind of donation that the institution receive	the specific item donated for institution

Financial Institution

payment method	Donated amount
Method of payment used by the donor for donation	The amount of money that donated by the donor

Recipient

Recipient id	Name	Email	Phone number
uniquely identifier for each recipient	The name of the recipient	The email of the recipient	the contact phone number of the recipient

Queries

Query 1 - Retrieve all donations made by donors, including the donor's name, institution name, and donation date:

donor_name	institution_name	donation_date
Ahmed Khalid	Education Fund	2024-04-30T00:00:00.000Z
Noura fahad	Healthcare Organization	2024-04-29T00:00:00.000Z

Query 2 - Retrieve all recipients and the financial institutions supporting them:

recipient_name	financial_institution_name
Felwa saud	Community Center
anas turki	Animal Shelter

Query 4- Retrieve all recipient information:

id	name	phone_number	email
1	Lara Mohammed	555-123-4567	Lara@email.com
2	Saad hamad	777-987-6543	Saad.ha@email.com
3	Felwa saud	999-888-7777	Felwa@email.com
4	anas turki	333-222-1111	Anas@email.com

Query 3 - Retrieve the total donated amount to each financial institution:

financial_institution	total_donated_amount
Animal Shelter	5500.00
Community Center	1000.00

Queries

Query 5- Retrieve the total number of financial donation institutions:

total_financial_institutions
2

Query 6 - Retrieve all non-financial institutions and their supported items:

name	institution_item
Healthcare Organization	B+ Blood
Education Fund	pencils
Research Institute	Microscope

Query 7- Retrieve all donor information:

ID	Name	Phone_Number	Email	Address
1	Ahmed Khalid	123-456-789	Ahmed@email.com	123 Main Street
2	Noura fahad	987-654-321	Noura.fa@email.com	456 Nahdah Street
3	Abdullah saad	111-222-333	abdu.sa@emaile.com	789 abu baker Street
4	Lulu othman	444-555-666	Lulu@email.com	987 king saud Street

Thank you for
listening!