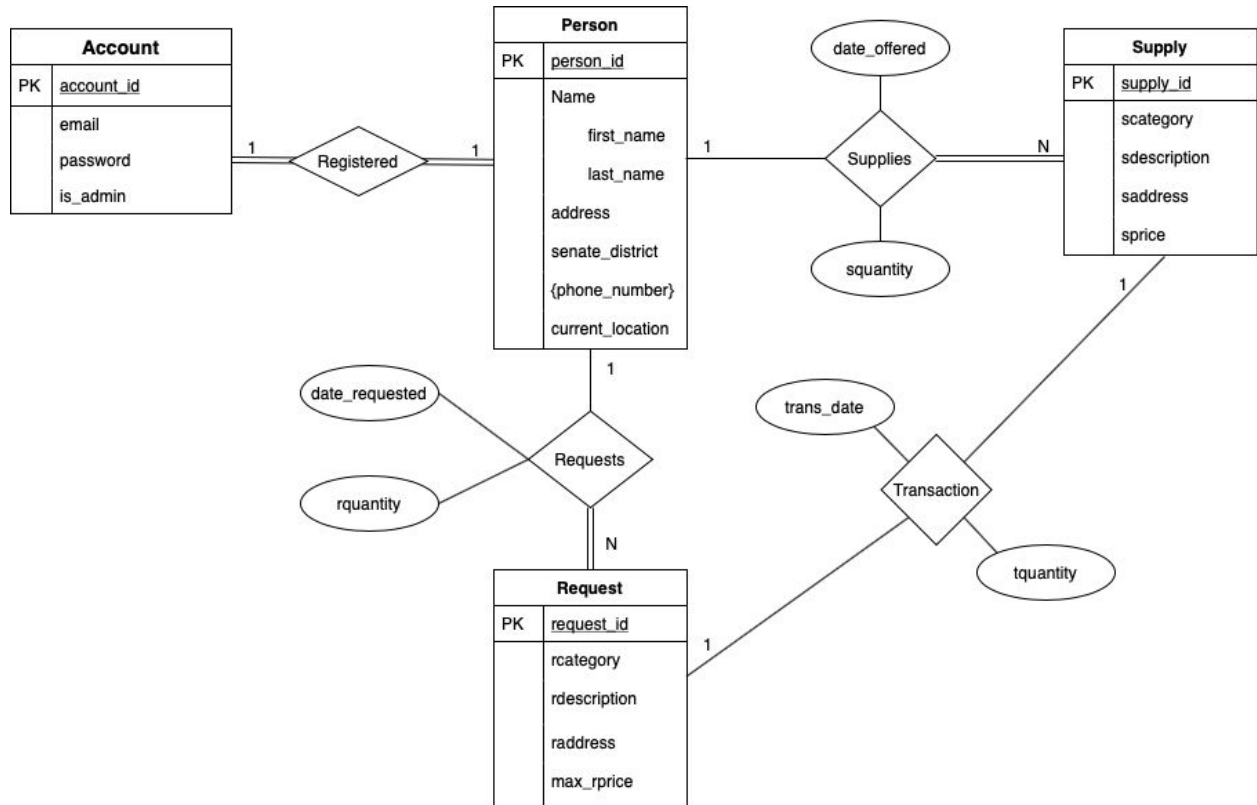**Department of Computer Science and Engineering**
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CIIC 4060/ICOM 5016
Backend System for Disaster Site Resources Locator
Phase I – Conceptual Design

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ER Diagram:

Description:

Entities:

1. Account
   a. account_id - primary serial key
   b. email (varchar(35)) - account email
   c. password (varchar) - account password (authentication purpose)
   d. is_admin (bool) - declare you as administrator

2. Person
   a. person_id - primary serial key
   b. first_name (varchar(35)) - person's first name
   c. last_name (varchar(35)) - person's last name
   d. address (varchar) - person's home address
   e. senate_district (varchar(20)) - person's senate district
   f. phone_number (varchar(15)) - person's contact phone number
   g. current_location (varchar) - person's current location

3. Supply
    a. supply_id - primary serial key
    b. scategory - type of supply (Water, Medication, etc)
    c. sdescription (varchar) - supply's description
    d. saddress (varchar) - supply's location
    e. sprice (float) - supply's price
4. Request
    a. request_id - primary serial key
    b. rcategory (varchar(15)) - type of resource (Water, Medication, etc)
    c. sdescription (varchar) - request description
    d. raddress (varchar) - request location
    e. max_rprice (float) - maximum price willing to pay for resource

Relationships:
1. Registered - Relation One to One. Every person must have an account. An account can only belong to a single person.
2. Supplies - Relation One to Many. One person can announce the availability of more than one supply.
    a. date_offered (varchar) - supply availability date
    b. squantity (float) - quantity of available supplies announced
    c. person_id - foreign key
    d. supply_id - foreign key
3. Requests - Relation One to Many. One person can ask for more than one resource
    a. date_requested (varchar) - request date
    b. rquantity (float) - quantity of resources requested
    c. person_id - foreign key
    d. request_id - foreign key
4. Transaction - Relation One to One. Ties one request with one supply along with the quantity exchanged between them
    a. trans_date (varchar) - date completed
    b. tquantity - quantity issued
    c. request_id - foreign key
    d. supply_id - foreign key