

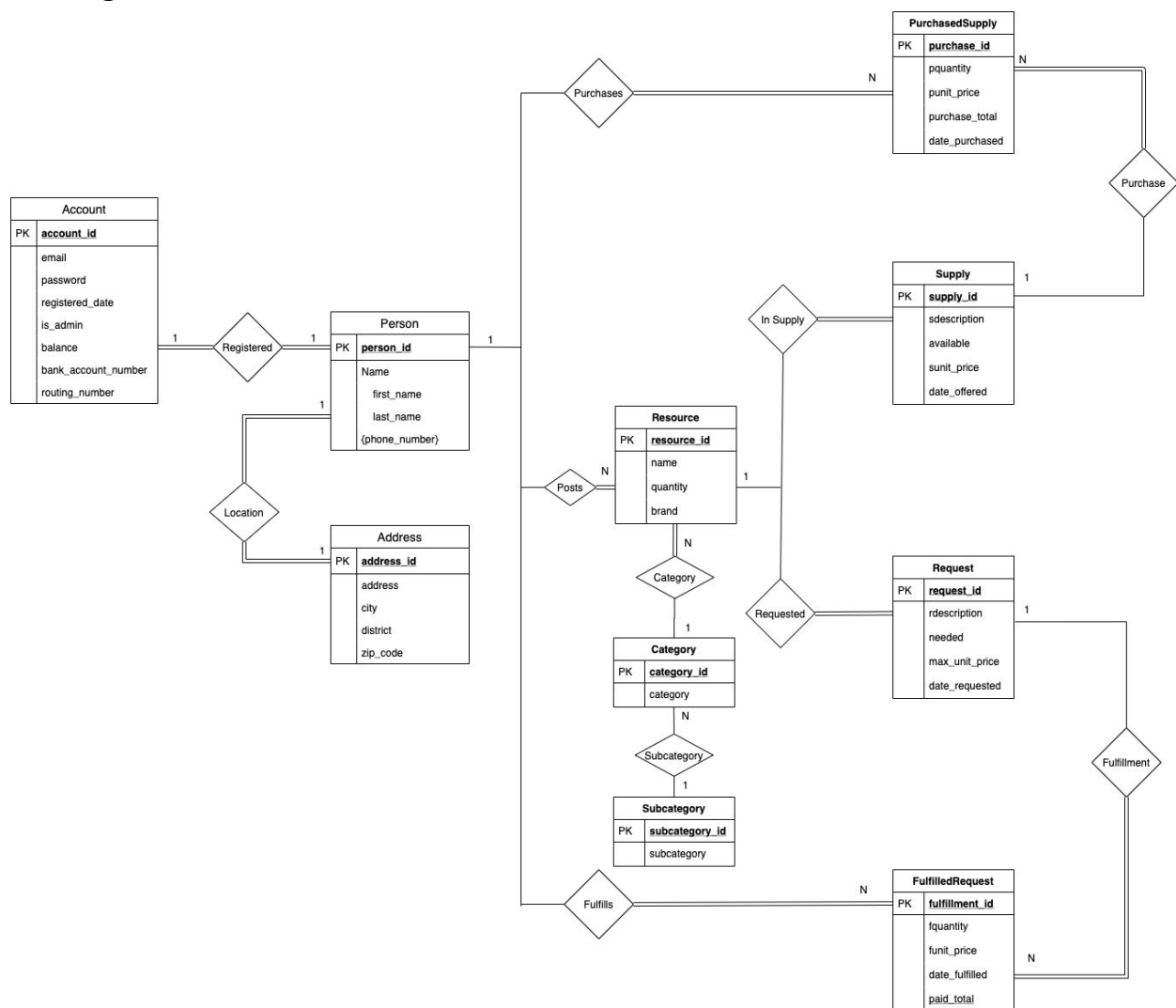


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**CIIC 4060/ICOM 5016
Backend System for Disaster Site Resources Locator
Phase II – ER Model Revision and Working Back-End**

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ER Diagram:



Description:

Entities:

1. Account

- account_id - primary serial key
- email (varchar(35)) - account email
- password (varchar) - account password (authentication purpose)
- registered_date (timestamp) - date user registered to site.
- is_admin (bool) - declare you as administrator
- balance (float) - money used to purchase supplies
- bank_account_number (varchar(9)) - used to deposit money into the user's bank account from balance
- routing_number (varchar(5)) - used to deposit money into the user's bank account from balance

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
3. Address
 - a. address_id - primary key
 - b. address (varchar(35)) - first address line
 - c. city (varchar(20)) - city / municipality
 - d. district (varchar(15)) - senate district city belongs to
 - e. zip_code (char(5)) - zip code of address
4. Resource
 - a. resource_id - primary key
 - b. name (varchar(35)) - resource name
 - c. quantity (int) - quantity of the resource
 - d. brand (varchar(35)) - resource brand
5. Category
 - a. category_id - primary key
 - b. category - category of a resource
6. Subcategory
 - a. subcategory_id - primary key
 - b. subcategory - subcategory of a resource
7. Supply
 - a. supply_id - primary serial key
 - b. sdescription (varchar(75)) - supply's description
 - c. available (int) - number of units available to purchase
 - d. sunit_price (float) - supply's price per unit
 - e. date_offered (timestamp) - time a resource was announced as available.
8. Request
 - a. request_id - primary serial key
 - b. rcategory (varchar(15)) - type of resource (Water, Medication, etc)
 - c. sdescription (varchar) - request description
 - d. max_unit_price (float) - maximum price willing to pay for resource per unit
 - e. date_requested (timestamp) - time a resource was requested.
9. Purchased Supply
 - a. purchased_id - primary key
 - b. pquantity (int) - number of items sold
 - c. punit_price(float) - price each unit was sold at
 - d. purchase_total (int) - total paid
 - e. date_purchased (timestamp) - time purchase was made

10. Fulfilled Request

- a. fulfillment_id - primary key
- b. fquantity (int) - number of items given
- c. funit_price (float) - price each unit was sold at
- d. date_fulfilled (timestamp) - time request was fulfilled
- e. paid_total (int) - total paid

Relationships:

For now we have decided that none of the relationships will be tables, as there are no many to many relationships.

1. Registered - Relation One to One. Every person must have an account. An account can only belong to a single person.
2. Location (Person) - Relation One to One. Default location for supplies or requests a person makes / address of person.
3. Location (Supply and Request) - Relation One to One. Location of supplies available or of need for resources.
4. Posts - Relation One to Many. One person can post multiple resources; whether they are available or in need.
5. In Supply - Relation One to Many. One person can announce the availability of more than one supply.
6. Requested - Relation One to Many. One person can ask for more than one resource.
7. Purchase - Relation Many to One. A person can buy part of a supply's stock, allowing others to buy some of the same supply as well.
8. Fulfillment -Relation Many to One. A person can provide part of the resources needed, allowing others to provide the resource as well.