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MAYAGÜEZ, PUERTO RICO
FACULTAD DE INGENIERÍA
DEPARTAMENTO DE INGENIERÍA ELÉCTRICA Y DE COMPUTADORAS**

ICOM5016-116

DROOTS

(Disaster Relief Oriented One-on-one Technology Services)

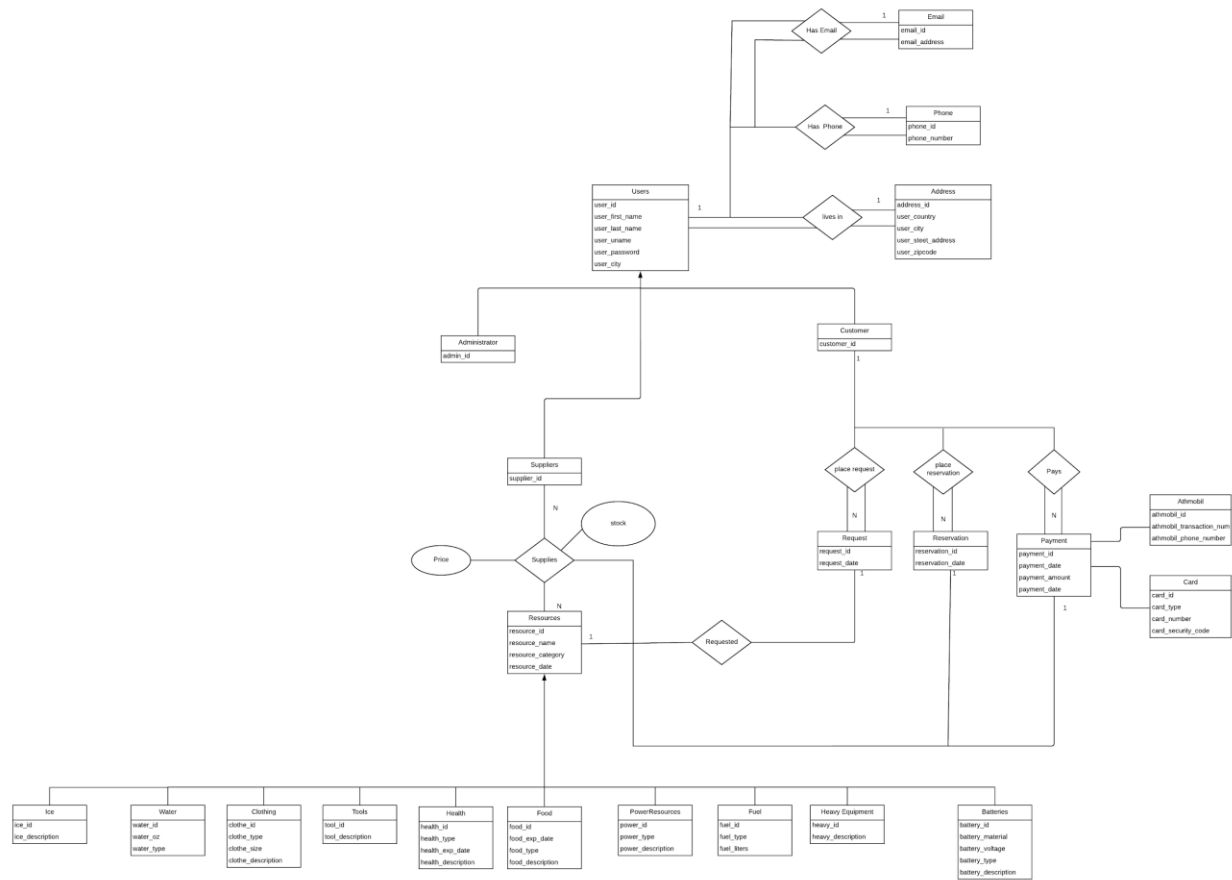
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DROOTS ER DIAGRAM



ER Table

- 1) Users
- 2) Administrator
- 3) Suppliers
- 4) Supplies
- 5) Customer
- 6) Address
- 7) Request

- 8) Reservation
- 9) Payment
- 10) Athmobil
- 11) Card
- 12) Resources
- 13) Ice
- 14) Water
- 15) Clothing
- 16) Tools
- 17) Health
- 18) Food
- 19) Power Resources
- 20) Fuel
- 21) Heavy Equipment
- 22) Batteries
- 23) Phone
- 24) Email

1. Users

- a. **Table Content:** Contains all users.
- b. **Attribute Description:**
 - i. **user_id:** Serial primary key
 - ii. **user_first_name:** varchar(10) User first name
 - iii. **user_last_name:** varchar(20) User last name

- iv. **user_name: varchar(10)** User username
- v. **user_password: varchar(10)** User password
- c. **Inheritance:** Is the parent of Administrator, Suppliers and Customers.
- d. **Relationships:** N/A
- e. **Foreign Keys:** N/A

2. Administrator

- a. **Table Content:** Contains all administrators.
- b. **Attribute Description:**
 - i. **admin_id: serial primary key**
- c. **Inheritance:** Inherits from Users table.
- d. **Relationship:** N/A
- e. **Foreign Keys:** user_id

3. Suppliers

- a. **Table Content:** Contains the id of all supplier users
- b. **Attribute Description:**
 - i. **supplier_id: serial primary key**
- c. **Inheritance:** Inherits from table Users
- d. **Relationships:** Many to Many relationship with table Resourcesng
- e. **Foreign Keys:** user_id

4. Supplies

- a. **Table Content:** Contains all the supplies with price and stock
- b. **Attribute Description:**
 - i. **(Supplier_id, resource_id): primary key**
 - ii. **Supplies_price: float**
 - iii. **Supplies_stock: integer**
- c. **Inheritance:** Inherits from table Users
- d. **Relationships:** Many to Many relationship with table Resourcesng
- e. **Foreign Keys:** user_id

5. Customer

- a. **Table Content:** Contains all users that reserves or purchase a resource
- b. **Attribute Description:**
 - I. **customer_id: serial primary key**
- c. **Inheritance:** Inherits from Users table
- d. **Relationships:**
 - i. Has relation Pays, one-to-many, with table Payment. Primary key serves as foreign key in table Payment.

- ii. Has relation Place Request, one-to-many, with table Request. Primary key serves as foreign key in table Request.
- iii. Has relation Place Reservation, one-to-many, with table Reservation. Primary key serves as foreign key in table Reservation.
- e. **Foreing Keys:** user_id

6. Address

- a. **Table Content:** Contains all users' addresses
- b. **Attribute Description:**
 - i. **Address_id:** serial primary key
 - ii. **User_country:** varchar(20)
 - iii. **user_city:**varchar(20)
 - iv. **user_street_address:**varchar(50)
 - v. **user_zipcode:** integer
- c. **Inheritance:** N/A
- d. **Relationships:** A relationship of user's address with Users table
- e. **Foreing Keys:** user_id

7. Request

- a. **Table Content:** Contains all requests of resources made by users.
- b. **Attribute Description:**
 - i. **request_id:** Serial primary key
 - ii. **request_date:** date Represents the date when the customer requests a resource.
- c. **Inheritance:** N/A
- d. **Relationships:** Has relation Requested, many-to-one, with table Resources.The **resource_id** will serve as a foreign key in table Request
- e. **Foreing Keys:** user_id

8. Reservation

- a. **Table Content:** Contains all reservations of resources made by users.
- b. **Attribute Description:**
 - i. **reservation_id:** Serial primary key
 - ii. **reservation_date:** date
- c. **Inheritance:** N/A
- d. **Relationships:** Has relationships Separate, many-to-one, with table Resources. The **resources_id** will serve as foreign key in the Reservation table.

e. **Foreing Keys:** customer_id

9. **Payment**

- a. **Table Content:** Contains all payments made by users.
- b. **Attribute Description:**
 - i. **payment_id:** serial primary key
 - ii. **Payment_date:**
 - iii. **payment_amount:**
- c. **Inheritance:** Is the parent of Athmobil and Card tables
- d. **Relationships:**
 - i. Has relationship Buy, many-to-one, with table Resources. The **resources_id** will serve as foreign key in the Payment table.
- e. **Foreing Keys:** user_id
- f.

10. **Athmobil**

- a. **Table Content:** Contains all athmobil payments made by users.
- b. **Attribute Description:**
 - i. **athmobil_id:** serial primary key
 - ii. **athmobil_transaction_method:** **varchar(100)** number of the athmobil the transaction
 - iii. **athmobil_phone_number:** **varchar(20)** phone number used for the payment transaction
- c. **Inheritance:** Inherits from Payment table
- d. **Relationships:** N/A
- e. **Foreing Keys:** payment_id

11. **Card**

- a. **Table Content:** Contains all payments made by users.
- b. **Attribute Description:**
 - i. **card_id:** serial primary key
 - ii. **card_type:** **varchar(20)** type of card used (i.e. Mastercard, Visa)
 - iii. **card_number:** **integer** number of the card used for the payment
 - iv. **card_security_code:** **integer** security pin of the card
- c. **Inheritance:** Inherits from Payment table

- d. **Relationships:** N/A
- e. **Foreing Keys:** payment_id

12. **Resources:**

- a. **Table Content:** Contain all the category resources in the systems and their current availability.
- b. **Attributes Description:**
 - i. **resource_id:** Integer Serial primary key.
 - ii. **resource_name:** varchar(20)
 - iii. **resource_category:** varchar(20) Represents the table category of each Resource.
 - iv. **resource_date:** date Represents the date of adding a resource into system
- c. **Inheritance:** N/A
- d. **Relationship:** One to Many with Suppliers table, having total participation of Resources with one attribute of price.
- e. **Foreing Keys:** N/A

13. **Ice**

- a. **Table Content:** Contain all the ice resources.
- b. **Attributes Description:**
 - i. **ice_id:** Integer Serial primary key.
 - ii. **ice_description:** varchar(250)
- c. **Inheritance:** N/A
- d. **Relationship:** N/A
- e. **Foreing Keys:** resources_id

14. **Water**

- a. **Table Content:** Contain all the water resources.
- b. **Attributes Description:**
 - i. **water_id:** integer serial primary key.
 - ii. **water_oz:** integer
 - iii. **Water_type:** varchar(10)
- c. **Inheritance:** N/A
- d. **Relationship:** N/A
- e. **Foreing Keys:** resources_id

15. **Clothing:**

- a. **Table Content:** Contains all the clothing resources.
- b. **Attributes Description:**
 - i. **clothe_id: Integer** Serial primary key.
 - ii. **clothe_type: varchar(14)** Represents a predetermined type of cloth from the next categorie:[Head,Top, Hands, Bottom, Feet].
 - iii. **clothe_size: varchar(10)** The size of the particular cloth.
 - iv. **description: text** Description of the cloth item
- c. **Inheritance:** Inherits from Resources table.
- d. **Relationship:** N/A
- e. **Foreing Keys:** resorces_id

16. **Tools:**

- a. **Table Content:**
- b. **Attributes Description:**
 - i. **tool_id: Integer** Serial primary key.
 - li. **tool_name: varchar(10)** Name of the tool.
 - lii. **tool_description: text** Description of the tool.
- c. **Inheritance:** Inherits from Resources table.
- d. **Relationship:** N/A
- e. **Foreing Keys:** resorces_id

17. **Health**

- a. **Table Content:** Contains all resources related to the medical field and first aid.
- b. **Attribute Description:**
 - iv. **health_id:** serial primary key
 - v. **Health_name: varchar(10)** product name
 - vi. **Health_type: char(10)** equipment or medication
 - vii. **Health_exp_date: char(10)** the product's expiration date
 - viii. **Health_description: varchar(250)** short description on how to use it or any important note left by the supplier
- c. **Inheritance:** Inherits from table Resources
- d. **Relationships:** N/A
- e. **Foreing Keys:** resorces_id

18. **Food**

- a. **Table Content:** Contains all food
- b. **Attribute Description:**
 - ix. **food_id:** serial primary key
 - x. **food_name:** **varchar(10)** product name
 - xi. **Food_type:** perishable,
 - xii. **food_exp_date:** **char(10)** food expiration date
 - xiii. **food_descrpition:** **varchar(250)** important note(s) left by the supplier
- c. **Inheritance:** Inherits from table Resources
- d. **Relationships:** N/A
- e. **Foreing Keys:** resorces_id

19. **Power Resources**

- a. **Table Content:** Contains all Power Resources.
- b. **Attribute Description:**
 - i. **power_id:** Serial Primary Key
 - ii. **power_category:** **varchar(10)** Power resource category(fuel, batteries, solar, etc.)
 - iii. **power_type:** **varchar(10)** Type of power resource depending it's category.
 - iv. **power_description:** **varchar(250)** Description of the product.
- c. **Inheritance:** Inherits from Resources.
- d. **Relationship:** N/A
- e. **Foreing Keys:** resorces_id

20. **Fuel**

- a. **Table Content:** Contains all fuels.
- b. **Attribute Description:**
 - i. **fuel_id:** Serial primary key
 - ii. **fuel_type:** **varchar(10)** Type of fuel(diesel, gas, etc.)
 - iii. **fuel_liters:** **integer** Quantity of fuel in liters
- c. **Inheritance:** Inherits from Resources table.
- d. **Relationship:** N/A
- e. **Foreing Keys:** resorces_id

21. **Heavy Equipment**

- f. **Table Content:** contains all food
- g. **Attribute Description:**
 - i. **heavy_id:** serial primary key
 - ii. **heavy_name:****varchar(250)** product name

- iii. **heavy_description: varchar(250)** notes left by the supplier
- h. **Inheritance:** Inherits from table Resources
- i. **Relationships:** N/A
- e. **Foreing Keys:** resorces_id

22. Batteries:

- a. **Table Content:**
- b. **Attributes Description:**
 - i. **batteries_id: Integer** Serial primary key.
 - ii. **batteries_type: text** Type of battery [Lithium Ion, lithium polymer, Lead Acid, Nickel Cadmium, Nickel-Metal Hydride].
 - iii. **batteries_voltage: char(4)**
 - iv. **batteries_description: text** Description of the product being sold.
- c. **Inheritance:** Inherits from Resources table.
- d. **Relationship:** N/A
- e. **Foreing Keys:** resorces_id

23. Phone

- a. **Table Content:** Contains all user's phone
- b. **Attribute Description:**
 - i. **phone_id: serial primary key**
 - ii. **phone_number: varchar(12)** user's phone number
- c. **Inheritance:** N/A
- d. **Relationships:** A relationship of user's phones with Users table
- e. **Foreing Keys:** user_id

24. Email

- a. **Table Content:** Contains all user's emails
- b. **Attribute Description:**
 - i. **email_id: serial primary key**
 - ii. **email_address: varchar(64)** user's email address
- c. **Inheritance:** N/A
- d. **Relationships:** A relationship of user's emails with Users table
- e. **Foreing Keys:** user_id