MINI WORLD AND SYSTEM REQUIREMENTS SPECIFICATIONS

PET PARADISE MANAGEMENT SYSTEM

AIM: DUKARUS pet paradise is a multi-functional farm, that contains many blocks, much kind of workers and so on. Customers having different kinds of needs and likes come to the farm and buy or sell items or pets. The aim of this case study is to design and develop a database for the paradise to maintain the records of various blocks, customers, stocks, suppliers and workers in the paradise. And also maintains records of the online purchases by customers.

DESCRIPTION: In this paradise, there are many blocks such as animals, birds, fishes, foods, plants, aquatic plants, accessories, etc. Users will get direct up-to-date, and accurate information. Mostly this system will be using by the stock manager and owner of the farm. Therefore, primary actors of the system are stock manager and owner. Customers, optimal workers, delivery guys and suppliers are secondary actors because they going to do only certain functions.

Customers come and search for their needs or likes. And give entry information for purchase items to receptionist. And also, customers can sell pets. Receptionist enter the information into system (into required fields) and allow to make purchases. But in the online transactions, customers will be directly using this system by login or signup (for new customers) into the system.

Stock manager will analyze whole database every day for stocks (future needs) of the shop and update current available items and pets time to time, and directly request the suppliers or inform to owner for the future stocks. Suppliers also can see part of the database to know about remaining stocks.

Suppliers also can login or sign up (new suppliers) into the system with their IDs. They can see last edits by the stock manager and request to supply items. When customer ordered things, stock manager or owner will inform to the delivery boys and delivery boys see their locations and payment status and deliver items or pets on time according to the payment status. Customers have more payments methods (pay pal, credit and debit cards, etc.). Stock manager will inform customers and owner if they don't have customer requested things.

TABLE DESCRIPTION

Following are the tables along with constraints used in pet paradise management system.

1. **BLOCKS:**
   This table contains details about the various blocks in the paradise. Block name, block number, location, and facilities and available items in the block are the stored information in this table.

   Constraint: Block number and block name will be unique for each block.

2. **ANIMALS:**

This table contains all pet animals' details in the shop. Animal name, animal id, price, origin, sex, species and other details (age, feeding and medical details) are stored in the table.

Constraint: Animal ID should be unique and should start with ANI prefix. Animal name should not be scientific name. Sex should be M or F.

3. **BIRDS:**
   This table contains details about all birds available in the farm. Bird name, bird id, price, origin, sex,
   species and other details (age, feeding and medical details) are stored in the table.

   Constraint: Bird ID should be unique and should start with BIR prefix. Bird name should not be scientific name. Sex should be M or F.

4. **FISHES**:
   Table consists details about all fishes available in the paradise. Fish name, fish id, price origin, type (fresh water fish, sea water fish, etc.), sex, size.

   Constraint: Fish ID should be unique and should start with FIS prefix. Fish name should not be scientific name. Sex should be M or F.

5. **PLANTS:**
   This table stores details of plants available in the paradise. Plant name, plant ID, origin, type (crops, flowering, vascular, grasses, etc.), price and other details (care tips) are stored in the table.

   Constraint: Plant ID should be unique and plant name should not be scientific name. Plant ID should begin with prefix PT.

6. **AQUATIC PLANTS:**
   Aquatic indoor plants details are stored in the table. Plant name, plant ID, origin, type (fresh water plant or sea water plant), price and other details (lightning level and environment setting details) are stored in the tables.

   Constraint: Plant ID should begin with prefix APT and should be unique. Plant name should not be scientific name.

7. **FOODS:**
   This table contain details about pet foods and nutrition. Food ID, Food name, expiry date, price, category, brand, type (natural food, supplementary food, complete foods, etc.) and other details (Ingredients, nutrients levels and details, etc.) are stored in this table.

   Constraints: In the category column must be filled about foods, which are for which animals, birds or fishes details. Food ID should be unique.

8. **STORE:**
   This table contains some accessories and items details (cage, fish tank, dog chain, etc.). Item name, item ID, price, manufacture country, quality (weight, size, brand, and so on) are stored in the table.

   Constraints: Item ID should be unique.

9. **CUSTOMERS**:
   This table contains details about online customers and normal customers. Customer name, customer ID, date, NIC number, address, phone number, type (online and normal) and transaction details.

   Constraints: Customer ID should begin with ONL or NOR prefixes according to type. Customer ID should be unique.

10. **WORKERS**:
    The table stores details of various workers work on the paradise. Workers name, workers ID, type (Cleaning staff, delivery boys, store keepers and so on), NIC number, address, salary details, joined date and contact number are stored in the table.

    Constraints: Worker ID should be unique and three letters prefixes (CLE- cleaning staffs, DEB- delivery boys, STK- store keepers and so on.) should be add before worker ID according the type of work. Workers name should be added how is in the NIC.

11. **SUPPLIERS**:
    The table contains details about all suppliers. Supplier name, supplier ID, place (or address), Supplies, quantity, price, supply date are stored in this table.

    Constraints: Supplier ID must be unique. Supplier name may company name or individual name.

12. **ORDERS**:
    This table contains details about customer orders. Order ID, Customer ID, payment type (pay pal, cash on delivery and credit or debit cards), ordered items, date, quantity, price are the stored in the table.

    Constraints: Order ID must be unique. Customer ID must be added on customers table. Ordered items must contain their names and specific IDs (Animal ID, bird ID, item ID, etc.). These names and IDs also must be in the tables accordingly.

13. **PAYMENTS**:
    This table contains payment details along with customers. Payment number, customer ID, payment type, payment status (whether paid or still not), date and amount are stored in the table.

Constraints: Payment number must be unique. Customer ID must be in CUSTOMER table.

14. **DELIVERY**:
    This table contains details about delivery details. Delivery boy name, delivery ID, order id, payment number, date, delivery status (whether delivered or still not).

    Constraints: Delivery ID must be unique. Order ID and payment number must be in the according tables.