Description of the organization:



Pakistan Postal Services(PPS) is a newly established courier service focused on Domestic and International express deliveries; global freight forwarding by air, warehousing solutions from packaging, to repairs, to storage; mail deliveries worldwide; and other customized logistic services. They have their main outlet (PPS Head Branch) located in Karachi and 5 secondary branches in Lahore, Islamabad, from where people can avail their postal services. Recently they launched their third outlet in a different area in Karachi.

Problem statement:

The new branch manager has been facing serious issues with the current database system as it has many loopholes which makes the transaction processing procedure very slow. Since the opening of the new outlet there has been an increase in the popularity of their postal services, therefore, the Customers and sales have increased too and hence a slow processing application software integrated with an inefficient database system needs a complete revamp. The problem needs to be solved immediately because at the new outlet, customers must wait in long queues because of the slow system which can result in loss of loyal customers. Hence, we have proposed a revamp of the database for the newly established courier service. This would not only be a more efficient system, but it will provide more functionalities which will smoothen out the process for customers to get their order placed, processing of mails, and furthermore functionalities which in turn will increase the number of customers.

**Purpose of the new system:**

* To introduce an efficient Automated System: The system should automatically update records in Customers lists etc. if a post has been sent or cancelled by a customer. The system should be able to do calculations by itself.
* To introduce a graphical user interface which is interactive, easy to use and easy to get used to.
* To introduce a search facility which would be easy for the Manager and would deal with customers quickly.
* Accuracy: To make the system respond accurately for example in returning search queries and calculating.
* To minimize incorrect data entry.
* To reduce the risk of data loss. Secure the system.
* To reduce the system response time.

Functionalities of the new system:

After studying the objectives of the proposed system, we have decided to create the following tables in the Database Software:

* Customer management system
* Employee management
* Manager record
* Product management system
* Order management system
* Customer service
* Supplier record
* Price
* Admin management system

Customer management system:

* A customer will be uniquely identified by customer ID.
* Customer information such as name, personal number, Address, Email will be stored.
* Customer will be able to send shipments domestically as well as internationally.
* Customer will be able to ship in a variety of weights. Ranging from various parcels to letters.
* Customer can also buy and ship products from PPS inventory.
* Customers can track their shipment through PPS customer services via track ID.
* Customers can lodge their complains through customer services as well. Their complains will be saved through order ID.
* Customer can also place multiple orders at a time.

**Employee management system:**

* Any staff member can be uniquely identified by his staff ID.
* Staff personal information such as name, telephone number, address and Email will be stored.
* An employee must be assigned to at least one department.
* Every employee must be monthly or hourly paid.

**Manager Record:**

* Any manager can be uniquely identified by manager ID.
* Manager information such as name, telephone number, address and Email will be stored.
* Each manager will manage exactly one outlet.
* Every manager will be monthly paid.
* Every manager will supervise all the departments of his respective outlet.
* Each manager will have access to employee, customer and shipment information.

**Product management system:**

* All similar products will be supplied by only one supplier.
* Product supplier’s information
* Each product will have its unique product ID.
* Products will be classified as eatables, flowers, decoration items.
* There will be threshold level for warning low quantity in store.

**Order management system**

* All orders will be given a unique order ID.
* The description of all orders will be available.
* An invoice will be generated after an order has been placed.
* Order can be tracked.
* Each order will have its unique tracking ID.
* Order can be either domestic or international.
* Order can be parcel or letter.
* There can be discounts on certain conditions.

**Customer Service:**

* There will be only one customer service telephone number.
* They will have access to product management system and order management system.
* Every city will have a customer services office.
* They will register suggestions and complains of their customers.
* They will provide general information such as shipping rates etc.

**Supplier Record:**

* The supplier information such as name and their products will be stored.
* Outlet manager will have access to the information of each supplier.

**Price:**

* The domestic and international rate will be different.
* Domestic rates will include inter city and intra city rates.
* International rates will include rates to the shipping country and the respective city.
* The parcel rates will depend on their weight.
* The rates of fragile items will be different.
* Overnight delivery charges will be different depending on the destination.
* There will be a cost calculator which will give the customer a quote before he ships an item.

**Admin management system:**

* Will only be accessible in the head branch by the CEO.
* It will contain all the details of the employees, managers in every branch.
* Will have access to every invoice ever generated.