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**Computer Direct LTD**

est. 2020

**Core Functionality:** A System for Selling Computer Hardware

**Team Members:** Mahad, Adnan, Alex, Cosmin

**System Overview:**

The system we are developing will enable the sale of computer hardware components to the general public. The system will be accessed by the customers through a front-end web application which will allow them to browse and filter through our available inventory. Once the customer has decided to place an order for one or many items, they will be able to add the desired items in a virtual shopping cart which will ready the items to be checked out and ordered. Creating an order will require the customer to make themselves an account which will hold their personal details, security information and payment data. Customer accounts will be able to review previously purchased items and either modify or cancel orders within reason.

The backend of the system for the staff will allow for the processing of a list of orders made by customers and a variety of administrative functions for managing customer data, staff data, inventory data and reporting on any data stored in the system.

**Allocated Component:** Customer Management System

**Developer:** Adnan

**Overview:**

Once an account is created, a unique CustomerID is assigned to that customer. This will assist in locating a certain account regardless of there being more than one customer with the same customer name, preventing confusion and mistakes. The Guest attribute will aid the customer who wishes to either use the guest services or to log into their existing account. In addition to this, having a thorough communication with the customers will allow staff members to update records. With this system in place the customer management staff will be able to add, edit or delete lists and filter customer information smoothly; decreasing the chances of errors occurring. If a customer wishes to create, edit or delete an existing account they can simply do so by logging in to their account and applying either the changes they wish to make or to terminate the account. This is the front-end of the system; to log in and gain access they’d have to use their chosen email along with the password.

**Individual Table Schema:**

**Customer – Table**

CustomerID : Int Primary key

Customer\_Name : String

Email : String

Date\_Created : Date

Address : String

Date\_Of\_Birth : Date

Guest : Boolean

**ERD Diagram:**

A close up of text on a white background

Description automatically generated

**Class Diagram:**

**A close up of a sign

Description automatically generatedUser Case Diagram:**

**A screenshot of a computer screen

Description automatically generated**

|  |  |
| --- | --- |
| Use Case Name (Short two or three word name) | Update customer data |
| Use Case Description (Short description) | Customer or staff update customer records |
| Use Case Author(s) (Who wrote this) | Adnan |
| Actor(s) (Who does this) | Customer / Staff |
| Locations (Where does this happen) | Front End and Back End Functionalities |
| Primary pathway (What is the normal “happy path” for this use case?) | Update customer data  User updates the customer data  Updated version of Customer data is displayed |
| Alternate pathways (What other paths are there that are not the “happy path”?) | There is no data of customer in the system, a message is displayed |
| Exception pathways (What could possibly go wrong?) | Database connection failure  Error displayed to the customer |

|  |  |
| --- | --- |
| Use Case Name (Short two or three word name) | Add customer |
| Use Case Description (Short description) | Customer or staff add customer |
| Use Case Author(s) (Who wrote this) | Adnan |
| Actor(s) (Who does this) | Customer / Staff |
| Locations (Where does this happen) | Front End and Back End Functionalities |
| Primary pathway (What is the normal “happy path” for this use case?) | Add customer  User adds customer  A message displayed saying Customer has been created |
| Alternate pathways (What other paths are there that are not the “happy path”?) | Duplicate customer, a message is displayed saying customer already exists |
| Exception pathways (What could possibly go wrong?) | Database connection failure  Error displayed to the customer |

|  |  |
| --- | --- |
| Use Case Name (Short two or three word name) | Delete customer |
| Use Case Description (Short description) | Customer or staff delete customer |
| Use Case Author(s) (Who wrote this) | Adnan |
| Actor(s) (Who does this) | Customer / Staff |
| Locations (Where does this happen) | Front End and Back End Functionalities |
| Primary pathway (What is the normal “happy path” for this use case?) | Delete customer  User deletes customer  Message is displayed saying customer has been deleted |
| Alternate pathways (What other paths are there that are not the “happy path”?) | There is no data in the system of customer, a message is displayed |
| Exception pathways (What could possibly go wrong?) | Database connection failure  Error displayed to the customer |

|  |  |
| --- | --- |
| Use Case Name (Short two or three word name) | Lists and filters data |
| Use Case Description (Short description) | Staff list and filter data of the customer |
| Use Case Author(s) (Who wrote this) | Adnan |
| Actor(s) (Who does this) | Staff |
| Locations (Where does this happen) | Back End Functionality |
| Primary pathway (What is the normal “happy path” for this use case?) | Lists and filters data  User lists and filters data  A list is displayed to the user |
| Alternate pathways (What other paths are there that are not the “happy path”?) | There is no data of list in the system, a message is displayed |
| Exception pathways (What could possibly go wrong?) | Database connection failure  Error displayed to the customer |

**Add** – Staff and Customer are both able to add a customer to the system.

**Edit** – An Account could be edited by Staff or a Customer.

**Update** – Details of the account can be updated by the Staff or Customer.

**Delete** – An Account can be deleted from the system by the Staff or Customer.

**List** – List can be displayed upon the request of the Staff only.

**Find** – Searched information can be discovered by the Staff only.

**Filter** – Filtering of the accounts can be done by the staff only.

**Validate** – Validation of the accounts can only be done by the Staff.