User Guide and Test Plan: Inventory Management System

**User Guide and Test Plan: Inventory Management System**

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**Introduction**

Inventory Management Systems are essential to the daily operations of many organizations. The primary goal of inventory management is to assist businesses to manage the ordering, stocking, storing, and using of supplies conveniently and efficiently. The intent of the correct management of inventory is a fundamental pillar of achieving success in enterprises because it ensures that stocks of raw material or other supplies are maintained at levels that provide maximum service levels at minimum costs. An inventory management system for a store selling stationery and office supplies is currently being developed by the authors of this document. The application will consist of a graphical user interface (GUI) and data saved into a structured query language (SQL) database. This document will discuss the user guide for the inventory management system and a test plan.

**Purpose and Objectives**

User guides and test plans are technical documents which will be used to describe how the inventory management system effectively operates. Cheng et al. (2020) states that comprehension of a foreign program is not only daunting for users, but also for experienced and inexperienced programmers. Effective technical documentation is a solution to the aforementioned concerns. The goal of technical documentation is to achieve the transfer of knowledge, and not in a daunting manner.

The user guide of the inventory management system instructs customers of the application, employees and managers, how to navigate the practicalities of the software. It allows for common technical problems with the system to be possibly solved on the spot. Therefore, the user guide provides the customers with a means to identify, comprehend and extricate technical problems by themselves. The technical document answers users’ questions, eliminating the need to research solutions. Furthermore, the user guide affords customers a feeling of appreciation and contributes to their satisfaction of using a product by providing them with an available reference.

On the other hand, the test plan is a technical document geared for programmers’ use in evaluating their products. The test plan for the inventory management system assesses the basic function of the GUI as well as ensures that the SQL database operates and produces the results intended by the developers. Observations of the testing are recorded in order to document results and foster feedback for improvement of the design and functionality of the application.

**User Guide**

As mentioned previously, the application will have a GUI interface for the user with menu options for inventory management**.**

Home Screen

When the program is executed, a Home Screen will appear.

*To register*

* If you are not registered, click on the registration tab and fill in the requested information. Ensure you specify your role in the drop down (employee or manager). Once you have entered the required fields, click “Submit” to complete the registration process.
* Once you are registered (you will receive confirmation in a pop-up box) that your registration is successful.

*To Log In*

* Click the “User” tab. A log in form will appear in which you will enter your username and password and click “Login”.
* Once you have successfully logged in, you will have access to the remaining tabs on the home screen. Note: Only Managers will have access to the Employee tab.

*Viewing and searching products*

* Click the “Product” tab. This will open the Product Inventory form. On the form you will see all products in the inventory displayed. You will also be able to search for a product by typing in the name of the product and clicking the “Search button”. To refresh the form, click “Reset”.

*Adding, Modifying, and Deleting products*

* On the Product Inventory Form, you will see buttons for selection to “Add Product”, “Modify Product”, “Delete Product”.
* To add a product, click the “Add Product” button. A form will show up for you to enter information concerning the product including Category, Name, Quantify, Price, Description, and In stock or out of stock. Click “Add” to add the product to the inventory or “Cancel” to cancel. Ensure you click the “Reset” button to see if the product has been successfully added.
* To edit a product, click the “Modify Product” button. A form will show up for you auto-populated with the product including Category, Name, Quantify, Price, Description, and In stock or Out of stock. Modify the auto-populated information as you wish. Click “Modify” to edit the product to the inventory or “Cancel” to cancel. Ensure you click the “Reset” button to see if the product has been successfully modified.
* To remove a product from the inventory, select the product you wish to delete on the Product Inventory Form and the “Delete Product” button. Ensure you click the “Reset” button to see if the product has been successfully deleted.

*Orders*

* Click on the “Orders” tab to add order information.
  + A form will show for the user to input the product name, quantity of products sold, and the price the products sold for.
  + Modify sold products information if a mistake was made by clicking the “modify” button on the form.
  + Remove sold products information by clicking the “delete” button on the form.

*Adding and Modifying Employee’s Information (For Managers only)*

* Click on the “Employee” tab to add, modify, or delete employee information.
  + Add Employee by entering the required information and click the “Add Button”
  + Modify an employee’s information by selecting the employee from the table and editing the desired information that automatically sets to the text fields. Click the “Modify” button.
  + Remove an employee’s information from the system by selecting that employee from the table and click the “Delete” button.

*Running Reports for product, order, and employees data (For Managers only)*

* Click on the “Reports” tab to run reports for products, orders, and employees.
  + From drop down select type of report.
  + Then click the run button.
  + A pop up containing the report will be generated.

*Exiting the Application*

* To exit the inventory management system application, click the red “X” at the top right hand of the Frame. Exiting the application will automatically log you out.

**Test Plan**

**Test Case 1**

|  |  |  |  |
| --- | --- | --- | --- |
| **Input** | **Expected Output** | **Output** | **Results** |
| Manager enters required information on the registration form for a new employee and clicks “Enter” | Manager should receive a pop-up annotating that the registration has been successful | Manager sees a pop-up box that states registration is successful (this will actually be an image of the pop-up box once the application is completed and ready for use) | **Pass** |

**Test Case 2**

|  |  |  |  |
| --- | --- | --- | --- |
| **Input** | **Expected Output** | **Output** | **Results** |
| User enters the user name and password. (User is an manager) | The user should be able to use the employee tab | User is able to use the Employee tab and successfully add, modify, or delete information (this will actually be an image of the occurrence once the application is completed and ready for use) | **Pass** |

**Test Case 3**

|  |  |  |  |
| --- | --- | --- | --- |
| **Input** | **Expected Output** | **Output** | **Results** |
| User enters username and password. (User is an Employee) | The user should not able to use the employee tab | Users are not able to use the Employee tab. (the tab will be greyed out based off of the user’s role of employee.) | **Pass** |

**Test Case 4**

|  |  |  |  |
| --- | --- | --- | --- |
| **Input** | **Expected Output** | **Output** | **Results** |
| User clicks the “Product” tab and searches for a product by typing in the name of the product and selecting the “Search” button | The Product Inventory page should load and products in the inventory should be displayed. The user should be able to type in the name of the product and click search. The product the user searched for should be displayed. | The product the user search for is displayed  (this will actually be an image of the occurrence once the application is completed and ready for use) | **Pass** |

**[Test Case 5**

|  |  |  |  |
| --- | --- | --- | --- |
| **Input** | **Expected Output** | **Output** | **Results** |
| User clicks the “Add Product” button on the Product Inventory page | A form should show up for the user to enter information concerning the product including Category, Name, Quantify, Price, Description, and In stock or out of stock. The user should then be able to click “Add” to add the product to the inventory.  The user should then receive a message that the product has been added be brought back to the Product Inventory Form and then be able to click “Reset”. The product should be added to the inventory | The product the user just added is now listed in the inventory (this will actually be an image of the occurrence once the application is completed and ready for use) | **Pass** |

**Test Case 6**

|  |  |  |  |
| --- | --- | --- | --- |
| **Input** | **Expected Output** | **Output** | **Results** |
| User clicks a product from the table on the Product Inventory page “Modify Product” button | A form should show up with the information for the product auto-populated in the text fields. The user should then be able to edit the information as they see fit and should then be able to click “Modify”.  The user should then receive a message that the product has been modified and be brought back to the Product Inventory Form and then be able to click “Reset”. The product should show modified in the inventory | The product the user just modified is now listed in the inventory with the current information as the user modified it (this will actually be an image of the occurrence once the application is completed and ready for use) | **Pass** |

**Test Case 7**

|  |  |  |  |
| --- | --- | --- | --- |
| **Input** | **Expected Output** | **Output** | **Results** |
| User clicks a product from the table on the Product Inventory page “Delete Product” button | The user should receive a message that the product has then been deleted and then be brought back to the Product Inventory Form and then be able to click “Reset”. The product should no longer be listed in the inventory | The product the user just deleted is now not listed in the inventory (this will actually be an image of the occurrence once the application is completed and ready for use) | **Pass** |

**Test Case 8**

|  |  |  |  |
| --- | --- | --- | --- |
| **Input** | **Expected Output** | **Output** | **Results** |
| User does not select a product and clicks the “Modify Product” or “Delete Product” button | The user should receive an error message stating that they need to select a product to modify/delete | The user receives an error message that they need to select a product to delete/modify (this will actually be an image of the occurrence once the application is completed and ready for use) | **Pass** |

**Test Case 9**

|  |  |  |  |
| --- | --- | --- | --- |
| **Input** | **Expected Output** | **Output** | **Results** |
| User enters incorrect username and or password | The user should receive an error message stating that the username or password is invalid | The user receives an error message that the username or password is invalid (this will actually be an image of the occurrence once the application is completed and ready for use) | **Pass** |

**Test Case 10**

|  |  |  |  |
| --- | --- | --- | --- |
| **Input** | **Expected Output** | **Output** | **Results** |
| User mistakenly enters a string for phone number | The user should receive an error message stating that they should enter only digits | The user receives an error message only numbers are allowed for a phone number (this will actually be an image of the occurrence once the application is completed and ready for use) | **Pass** |

**Test Case 11**

|  |  |  |  |
| --- | --- | --- | --- |
| **Input** | **Expected Output** | **Output** | **Results** |
| User enters the name of a product that is not in the inventory and click the “Search” button | The user should receive an error message stating that the product is not in the inventory | The user receives an error message stating that the product is not in the inventory(this will actually be an image of the occurrence once the application is completed and ready for use) | **Pass** |

**Test Case 12**

|  |  |  |  |
| --- | --- | --- | --- |
| **Input** | **Expected Output** | **Output** | **Results** |
| User clicks on the reports tab (User is a manager) The user will be able to run reports on the product, order, and employees data. | Users will get information about total cost of operations from running these reports. | User will get information about total cost of operations from running these reports. | **Pass** |

**Test Case 13**

|  |  |  |  |
| --- | --- | --- | --- |
| **Input** | **Expected Output** | **Output** | **Results** |
| User enters their username and password (User is a employee) | Users will be unable to click on the reports tab. | Users will be unable to click on the reports tab. (tab will be greyed out for users that are employees.) | **Pass** |

**References**

Cheng Y., Hsiung, W., Yu, Y. (2020). GekkyNote: A Technical Documentation Tool with Coverage, Backtracking, Traces, and Couplings. <https://www-computer-org.ezproxy.umgc.edu/csdl/pds/api/csdl/proceedings/download-article/1pcSM1DPLDq/pdf>