## **Computer Science 9608**

Pre-Released Material Oct-Nov 2020 Task1



## Structured English

### PROCEDURE Main

- 1. Initialise all data structures.
- 2. Display the options of actions that can be performed.
- 3. Take an input of which action is to be performed.
- 4. Call the appropriate PROCEDURE, otherwise display an error message.

### PROCEDURE Task11

- 1. Prompt for the input of item description.
- 2. Input an item description.
- 3. Prompt for the input of the choice of strict searching.
- 4. Input the choice of strict searching.
- 5. Call the SearchUniqueItemDescription FUNCTION with the description and choice of strict searching as the arguments, to obtain the relevant position of the searched item description.
- 6. Compare the value of the position and give an appropriate output.

#### PROCEDURE Task12

- 1. Prompt for the input of item description.
- 2. Input an item description
- 3. Call the PROCEDURE SearchMultipleItemDescription with the item description as the argument.

#### PROCEDURE Task13

- 1. Prompt for the input of an item description.
- 2. Input an item description
- 3. Prompt for the input of the choice of strict searching.
- 4. Input the choice of strict searching.
- 5. Call the FUNCTION SearchUniqueItemDescription with the item description and choice of strict searching as the arguments, to obtain the relevant position of the item description.
- 6. If the item is found, display all the relevant information from all the arrays, otherwise display an appropriate message











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### PROCEDURE Task14

- 1. Prompt for the item level to search for.
- 2. Input item level.
- 3. Call the PROCEDURE DisplayRecordsBelowLevel with the item level as the argument.

### PROCEDURE Initialise

1. Loop through all the elements in the arrays and initialise to null values (zero or empty string) according to the appropriate data types.

### PROCEDURE PopulateDataEntry

- 1. Loop through each index of the arrays. For each iteration:
- 2. Output the item number.
- 3. Prompt for an item code.
- 4. Input an item code.
- 5. Prompt for an item description.
- 6. Input an item description.
- 7. Prompt for an item price.
- 8. Input a price.
- 9. Prompt for the quantity of items in stock.
- 10. Input the quantity in stock.

### PROCEDURE PopulateAuto

- 1. Loop through each index of the arrays. For each iteration:
- 2. Assign appropriate predetermined values to each item.
- 3. Output a completion message.
- 4. Call the PROCEDURE DisplayAllRecords.











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#### FUNCTION SearchUniqueItemDescription(Description, Strict)

- 1. Loop through the number of items in the arrays. For each iteration:
- 2. Compare the value of Boolean value of Strict.
- 3. If Strict is TRUE, then compare the value of ItemDescription to the Description parameter passed, and assign the value TRUE to a Boolean flag.
- 4. If Strict is FALSE, then compare the uppercase values of ItemDescription to the Description parameter passed, and assign the value TRUE to a Boolean flag.
- 5. After the iterations, if the matching item description is found, return the position at which it is found. Otherwise, return the value 0.

### PROCEDURE SearchMultipleItemDescription (Description)

- 1. Loop through the number of items in the arrays. For each iteration:
- 2. Compare the uppercase values of ItemDescription and the Description argument passed to the FUNCTION.
- 3. If they match, display all the relevant information from all the arrays. Otherwise, display an appropriate error message.

#### PROCEDURE DisplayAllRecords

1. Loop through each array, and display the corresponding elements in each iteration.

### PROCEDURE DisplayRecordsBelowLevel (Level)

- 1. Loop through the number of items in the arrays. For each iteration:
- 2. Compare the value of NumberInStock to the Level argument passed to the FUNCTION.
- 3. If NumberInStock is less than Level, then output all the corresponding elements of the arrays for that item.









