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| **COMP.5212 Assignment Part B**  **Marking schedule** | | | |
| (This assignment contributes 50% to your final grade) | | | |
| **Student Name:** | | | |
| **Criteria** | | **Marks allocated** | **Marks awarded** |
| **SET UP** | | | |
| Entire assignment is in a zip file, and submitted correctly | | 2 |  |
| Windows Form Application created | | 1 |  |
| Form layout is appealing | | 1 |  |
| The following objects are added to the form: | |  |  |
|  | 4 textboxes, (0.5 ea)  with 4 labels (0.5 ea)  *(search, firstName, lastName, phone)* | 4 |  |
|  | 7 buttons  *(search, listCust, clearList, update, add, delete, clear)* | 7 |  |
|  | 1 listbox  1 groupbox | 2 |  |
| Comments added,  including program description & developer details | | 2 |  |
| Program runs without errors | | 1 |  |
| **SET UP TOTAL** | | **20** |  |
| **CLASSES & LISTS** | | | |
| class added to project, named **Customer:** | | 2 |  |
|  | Contains 3 **Properties;**  (FName, LName, Phone) (0.5 ea)  Auto-implemented { get; set; } (0.5 ea)  Access Modifier = public (0.5 ea)  of types string (0.5 ea) | 6 |  |
|  | Contains a **constructor,** with same name as class  (i.e. Customer) (0.5 ea)  3 string parameters (0.5 ea)  Initialises FName, LName and Phone (0.5 ea) | 4 |  |
|  | 1 **Method;** GetCustomer,  Access Modifier = public (0.5 ea)  Returns FName, LName & Phone (1 mk)  With tab spaces (0.5 mk) | 3 |  |
| List <T> created: | | 1 |  |
|  | Named CustomerDB  of type Customer | 2 |  |
| **CLASSES & LISTS TOTAL** | | **18** |  |

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| **METHODS** | | | |
| **LoadDB Method** created | | 1 |  |
|  | Adds 4; (0.5 ea) new Customer objects, (0.5 ea)  To the CustomerDB List (1 mk)  Populated with data (passed to constructor) (1 mk) | 6 |  |
|  | Method is called on the Form1\_Load event | 1 |  |
| **ClearBoxes Method** created | | 1 |  |
|  | Clears FName, LName & Phone textboxes | 3 |  |
| **ClearDisplay Method** created | | 1 |  |
|  | Clears all items from the Listbox | 1 |  |
| **DisplayCustomers Method** created | | 1 |  |
|  | Uses **foreach** loop,  To loop through CustomerDB List  Adds each item in list to listbox  Using GetCustomer method | 4 |  |
| **METHODS TOTAL** | | **19** |  |
| **BUTTONS** | | | |
| **Search button** Click event coded | | 1 |  |
|  | If statement validates Search textbox,  If empty; MessageBox displayed (0.5 ea)  Focus set back to Search textbox (0.5 ea) | 2 |  |
|  | Stores data from search textbox in string variable | 1 |  |
|  | Clears Search textbox, Calls ClearDisplay method (0.5 ea) | 1 |  |
|  | If statement checks;  Name exists in CustomerDB list  If Name not found; MessageBox displayed (0.5 ea)  Focus set back to Search textbox (0.5 ea) | 3 |  |
|  | Using Name,  FindIndex in List,  Assign to integer variable (e.g. Index) | 3 |  |
|  | Using Index; display ALL customer details,  In listbox on form (0.5 ea)  With tab spaces between (0.5 ea) | 2 |  |
| **List Customers** Click event coded | | 1 |  |
|  | Calls ClearDisplay & DisplayCustomers methods (0.5 ea) | 1 |  |
| **Clear List** Click event coded | | 1 |  |
|  | Calls ClearDisplay method, Focus set back to Search textbox (0.5 ea) | 1 |  |
|  | Add button enabled | 1 |  |

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| **Update** Click event coded | | 1 |  |
|  | If statement checks to see an item is selected in the listbox  If item not selected; MessageBox displayed  Calls ClearDisplay & DisplayCustomers methods (0.5 ea) | 3 |  |
|  | If statement checks all 3 textboxes are not empty  If any empty; MessageBox displayed | 2 |  |
|  | Takes text from FName textbox,  updates FName for that object in the CustomerDB list | 2 |  |
|  | Takes text from LName textbox,  updates LName for that object in the CustomerDB list | 2 |  |
|  | Takes text from Phone textbox,  updates Phone for that object in the CustomerDB list | 2 |  |
|  | Calls ClearBoxes, ClearDisplay, DisplayCustomers methods (0.5 ea)  MessageBox displayed (0.5 ea) | 2 |  |
|  | Add button enabled | 1 |  |
| **Add** Click event coded | | 1 |  |
|  | If statement checks all 3 textboxes are not empty  If any empty; MessageBox displayed | 2 |  |
|  | Adds new Customer object  To the CustomerDB List  Populated with data (passed to constructor)  From all 3 textboxes | 4 |  |
|  | Calls ClearBoxes, ClearDisplay, DisplayCustomers methods (0.5 ea)  MessageBox displayed (0.5 ea) | 2 |  |
| **Delete** Click event coded | | 1 |  |
|  | If statement checks to see an item is selected in the listbox  If item not selected; MessageBox displayed,  Calls ClearDisplay & DisplayCustomers methods (0.5 ea) | 3 |  |
|  | If statement checks user is sure,  Using MessageBox, With YesNo buttons (0.5 ea) | 2 |  |
| If DialogResult.Yes; | |  |  |
|  | Remove element,  From CustomerDB list, | 2 |  |
|  | Calls ClearBoxes, ClearDisplay, DisplayCustomers methods (0.5 ea)  MessageBox displayed (0.5 ea) | 2 |  |
|  | Add button enabled | 1 |  |
| If DialogResult.No; | |  |  |
|  | MessageBox displayed | 1 |  |
| **BUTTONS TOTAL** | | **54** |  |

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| **OTHER EVENTS** | | | |
| **SelectedIndexChanged** event coded | | 1 |  |
|  | Add button disabled | 1 |  |
|  | Listbox selecteditem is split,  At tab space  Assigned to an array  Of strings | 4 |  |
|  | Assigns each 3 elements of array,  To all 3 textboxes | 3 |  |
|  | Using FirstName; first element of array [0]  FindIndex in CustomerDB List  Assign to integer variable (e.g. Index) | 3 |  |
| **OTHER EVENTS TOTAL** | | **12** |  |
| **ASSIGNMENT TOTAL** | | **123** |  |