FINAL PROJECT

PROG-8145

Professor Harry Scanlan

Jeffrey Hermo

**Laptop Repair Program** – This is a program created with C# that accepts a work per appointment and customer.

Diagram

Description automatically generated

Class Diagram for the laptop repair program

Diagram

Description automatically generated

Wireframe UI design of the program

Graphical user interface

Description automatically generated

1. **Appointment Time (Combo box) –** Contains the available time slot for the user.
   * If a slot is added on the grid, it will remove the slot taken.
   * Add button is disabled not unless user chooses an appointment slot.
   * Binded to AppointmentTime (string).
2. **Name (Textbox) –** Customer name to be inputted.
   * Any string is accepted.
   * Binded to CustomerName (string).
3. **Credit Card No (Textbox) –** Credit Card number to be inputted.
   * Only numeric are accepted.
   * Validation Rule is applied to this field.
     1. Only numeric and total of 16 digits should be inputted.

* Binded to CreditCardNo (string)

1. **Laptop Type (Combo box) –** Contains the types of laptops available in the market.
   * Contains Netbook, Notebook, UltraBook, and Gaming Laptop.
   * Binded to LaptopType (string).
2. **Brand (Combo box) –** Contains the available laptop brands in the market.
   * Contains all brands (Asus, Lenovo, Dell, MSI, Alienware etc.)
   * Binded to Brand (string).
3. **Model (Textbox) –** Model to be inputted by the user.
   * Decided that this will be user input as there will be lots of possible model.
   * Binded to Model (string).
4. **Work Done –** Contains the available work that can be done on the laptop.
   * Binded to WorkDone (string).
5. **Work Per Type (Textbox) –** This field is not editable.
   * This will have a value depending on what type of laptop the user chose.
   * Every laptop type has its own special work.
6. **Technician (Textbox) –** Technician name who worked on the laptop.
   * Binded to TechnicianName (string).
7. **Add (Button) –** This will transfer the data from the field to the datagrid.
   * On default, this is disabled. It will be enabled once an appointment slot is chosen.
   * This will bind the datagrid to TempAppointment (ObservableCollection).
   * This will not add data on the datagrid if the field has some empty values.
   * If the datagrid has value from clicking the search button, it will remove the retrieve value from the datagrid and replace it with the ones in the field.
8. **Search By (Combo box) –** Contains the searching parameter for retrieving values from XML.
   * LINQ was applied in searching.
   * Will show an error when trying to search with empty choice in combo box.
   * Choices are ALL, Customer Name, Laptop Brand, and Technician Name.
9. **Search (Textbox) –** Can input search parameter.
   * If customer name is chosen in the combo box, this field can be inputted on what name you want to search.
10. **Search (Button) –** Trigger the search.
    * Will retrieve data from XML.
    * Searching is case insensitive.
11. **Save (Button) –** Trigger the saving of data from the grid.
    * This will save data from the datagrid.
    * This will also save the retrieved data when updated in the datagrid.
    * Data will be saved as an XML.
    * Default saving will be used when saving the file (\bin\Debug\net5.0-windows\Appointment.xml)
12. **Datagrid –** Main grid for the retrieving and saving from and to XML.
    * Fields inside the grid are updatable as they are all binded to their respected objects.
    * Only the appointment time is not updatable as it was decided that appointment skit should not be change.

**VALIDATION:**

**Graphical user interface, application

Description automatically generated**

**Graphical user interface, application

Description automatically generated**

Added validation rule on credit card field.

* Only numeric are allowed.
* 16 characters exactly should be entered.

Graphical user interface, application

Description automatically generated

Conditional validation added on search combo box.

* User should select on one of the choices.

**Datagrid:**

**Table

Description automatically generated** **Table

Description automatically generated**

**Fields inside the datagrid:**

1. **Time (datagrid combo box) Graphical user interface, text, application

   Description automatically generated -** Not editable but binded to AppointmentTime (string).
2. **Name (datagrid textbox) A picture containing graphical user interface

   Description automatically generated –** Editable and binded to CustomerName (string).
3. **Credit Card (datagrid textbox) A picture containing graphical user interface

   Description automatically generated –** Editable and binded to CreditCardNo (string).
4. **Type (datagrid combo box) Graphical user interface, text, application

   Description automatically generated –** Editable and binded to LaptopType (string).
5. **Brand (datagrid combo box) Graphical user interface, application

   Description automatically generated with medium confidence –** Editable and binded to Brand (string).
6. **Model (datagrid combo box) A close-up of a sign

   Description automatically generated with low confidence –** Editable and binded to Model (string).
7. **Work Done (datagrid combo box) Graphical user interface, text, application

   Description automatically generated –** Editable and binded to WorkDone (string).
8. **Technician (datagrid textbox) Graphical user interface

   Description automatically generated with medium confidence –** Editable and binded to TechnicianName (string).

**Sample XML Saved:**

**Graphical user interface, text, application, email

Description automatically generated**