

Serendipity Booksellers Software Development Project— Part 4: A Problem-Solving Exercise

1. The Main Menu

- A. Modify the `mainmenu.cpp` program so it validates the user's input. If a value outside the range of 1 through 4 is entered, the program should display an error message. Here is an example screen:

```
Serendipity Booksellers  
Main Menu  
  
1. Cashier Module  
2. Inventory Database Module  
3. Report Module  
4. Exit  
  
Enter Your Choice: 5  
  
Please enter a number in the range 1 – 4.
```

- B. Later, in Chapter 6, you will begin merging you will begin merging all the programs you have written into the `mainmenu.cpp` file. You will now start making preparations for that. After the user input has been validated, add a switch statement that branches to a section of code, depending on which menu choice the user made. For now, the program should simply display a message like “You selected item 1” when the user enters a number. Here is an example of the screen:

```
Serendipity Booksellers  
Main Menu  
  
1. Cashier Module  
2. Inventory Database Module  
3. Report Module  
4. Exit  
  
Enter Your Choice: 3  
  
You selected item 3.
```

2. The Inventory Database Menu

You will make the same modifications to `invmenu.cpp` that you made to `mainmenu.cpp`.

- A. Modify the `invmenu.cpp` program so it validates the user's input. If a value outside the range of 1 through 5 is entered, the program should display an error message. Here is an example screen:

```
Serendipity Booksellers  
Inventory Database  
  
1. Look Up a Book  
2. Add a Book  
3. Edit a Book's Record  
4. Delete a Book  
5. Return to the Main Menu  
  
Enter Your Choice: 9  
  
Please enter a number in the range 1 – 5.
```

- B. After the user input has been validated, add a switch statement that branches to a section of code, depending on which menu choice the user made. For now, the program should simply display a message like “You selected item 1” when the user enters a number. Here is an example of the screen:

```
Serendipity Booksellers  
Inventory Database  
  
1. Look Up a Book  
2. Add a Book  
3. Edit a Book's Record  
4. Delete a Book  
5. Return to the Main Menu  
  
Enter Your Choice: 2  
  
You selected item 2.
```

3. The Reports Menu

You will make the same modifications to `reports.cpp` that you made to `mainmenu.cpp` and `invmenu.cpp`.

- A. Modify the `reports.cpp` program so it validates the user's input. If a value outside the range of 1 through 7 is entered, the program should display an error message. Here is an example screen:

```

Serendipity Booksellers
Reports

1. Inventory Listing
2. Inventory Wholesale Value
3. Inventory Retail Value
4. Listing by Quantity
5. Listing by Cost
6. Listing by Age
7. Return to Main Menu

Enter Your Choice: 8

Please enter a number in the range 1 – 7.
```

- B. After the user input has been validated, add a switch statement that branches to a section of code, depending on which menu choice the user made. For now, the program should simply display a message like “You selected item 1” when the user enters a number. Here is an example of the screen:

```

Serendipity Booksellers
Reports

1. Inventory Listing
2. Inventory Wholesale Value
3. Inventory Retail Value
4. Listing by Quantity
5. Listing by Cost
6. Listing by Age
7. Return to Main Menu

Enter Your Choice: 5

You selected item 5.
```