Decision Structures Lab

Lab 1: Single Line If Statement

Open the **Program.cs** file and replace the entire contents with the following code.

```
string name = "";

if (name == "") Console.WriteLine("Product Name Must Be Filled
In.");
```

Try It Out

Run the application and view the output.

Lab 2: Use Braces for If Statements

Open the **Program.cs** file and replace the entire contents with the following code.

```
string name = "";

if (name == "") {
  Console.WriteLine("Product Name Must Be Filled In.");
}
```

Try It Out

Run the application and view the output.

Lab 3: Using the Else Statement

Add the **else** code shown in bold below.

```
string name = "";

if (name == "") {
  Console.WriteLine("Product Name Must Be Filled In.");
}
else {
  Console.WriteLine("Valid Product Name");
}
```

Try It Out

Run the application and view the output.

Lab 4: Using the Else If Statement

Add the **else if** code shown below.

```
decimal price = 5.99M;

if (price < 5) {
  Console.WriteLine("Product Is Less Than $5.00.");
}
else if (price < 10) {
  Console.WriteLine("Product Is Less Than $10.00.");
}
else if (price < 100) {
  Console.WriteLine("Product Is Less Than $100.00.");
}
```

Try It Out

Run the application and view the output. Try changing the value of the **price** variable to test the different **else if** statements.

Lab 5: Ternary Operator

Open the **Program.cs** file and replace the entire contents with the following code.

```
decimal? cost = 0.00M;

Console.WriteLine(cost == 0 ? "Cost is Zero" : "Cost is not Zero");
```

Try It Out

Run the application and view the output.

Lab 6: Switch Statements

Open the **Program.cs** file and replace the entire contents with the following code.

```
decimal price = 5.99M;

switch (price) {
  case < 5:
    Console.WriteLine("Product Is Less Than $5.00.");
    break;
  case < 10:
    Console.WriteLine("Product Is Less Than $10.00.");
    break;
  case < 100:
    Console.WriteLine("Product Is Less Than $100.00.");
    break;
}
```

Try It Out

Run the application and view the output.

Lab 7: Null-Conditional Operator

Open the **Program.cs** file and replace the entire contents with the following code.

```
decimal? cost = 0.00M;
decimal? price = null;

Console.WriteLine(cost?.Equals(0));
Console.WriteLine(price?.Equals(0));
```

Try It Out

Run the application and view the output.

Lab 8: Null Coalescing Operator

Open the **Program.cs** file and replace the entire contents with the following code.

```
decimal? price = null;

Console.WriteLine(price ?? 0);
```

Try It Out

Run the application and view the output.

Lab 9: Is Operator

Open the **Program.cs** file and replace the entire contents with the following code.

```
decimal price = 5.99M;
object value = price;

Console.WriteLine(value is decimal);
```

Try It Out

Run the application and view the output.

Lab 10: DEBUG

Open the **Program.cs** file and replace the entire contents with the following code.

```
#if DEBUG
  Console.WriteLine("Debug mode");
#else
  Console.WriteLine("Release mode");
#endif
```

Try It Out

Run the application and view the output. Change to **Release** mode and view the difference in the output.

Lab 11: #define

Open the **Program.cs** file and replace the entire contents with the following code.

```
#define LANGUAGE_US

#if LANGUAGE_US
  Console.WriteLine("US English");
#else
  Console.WriteLine("Other Language");
#endif
```

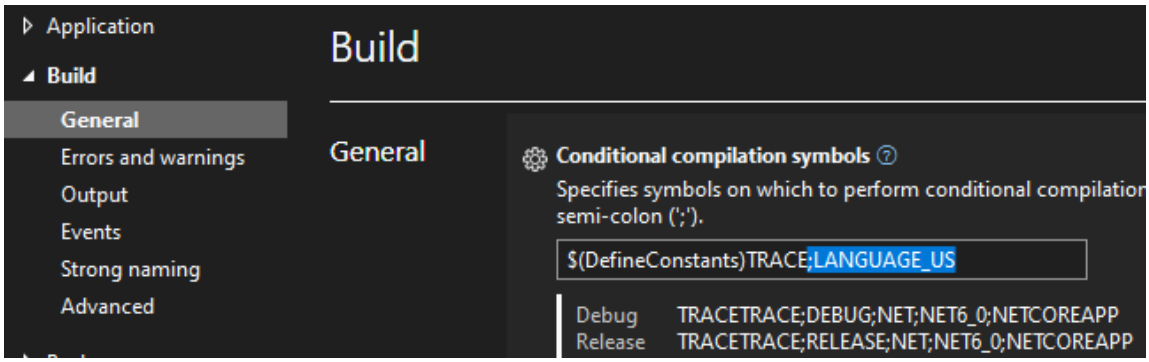
Try It Out

Run the application and view the output.

Lab 12: Global #define

Right mouse-click on the Project and select **Properties** menu item

Expand the **Build** tab and add ***LANGUAGE_US*** to the Conditional compile symbols field.



Try It Out

Run the application and view the output.