ASDV 2440, C# Programming
MP2

1. Create Project Problem1ColorMixerLastName

The colors red, blue, and yellow are known as the primary colors because they cannot be made by mixing other colors. When you mix two primary colors, you get a secondary color, as shown here:
• When you mix red and blue, you get purple.
• When you mix red and yellow, you get orange.
• When you mix blue and yellow, you get green.
Create an application that lets the user select two primary colors from two different sets of Radio buttons. The form should also have a Mix button. When the user clicks the Mix button, the form's background should change to the color that you get when you mix the two selected primary colors. Figure 4-34 shows an example of how the form should appear.

2 Create a project Problem2BookClubPointsLastName

Serendipity Booksellers has a book club that awards points to its customers based on the number of books purchased each month. The points are awarded as follows:
• If a customer purchases 0 books, he or she earns 0 points.
• If a customer purchases 1 book, he or she earns 5 points.
• If a customer purchases 2 books, he or she earns 15 points.
• If a customer purchases 3 books, he or she earns 30 points.
• If a customer purchases 4 or more books, he or she earns 60 points.
Create an application that lets the user enter the number of books that he or she has purchased this month and displays the number of points awarded.

3. Create a project Problem3FatPercentageCalculator

One gram of fat has 9 calories. If you know the number of fat grams in a particular food, you can use the following formula to calculate the number of calories that come from fat in that food:
Calories from fat = Fat grams X 9

If you know the food's total calories, you can use the following formula to calculate the percentage of calories from fat:
Percentage of calories from fat = Calories from fat / Total calories
Create an application that allows the user to enter:
• The total number of calories for a food item
• The number of fat grams in that food item

The application should calculate and display:
• The number of calories from fat
• The percentage of calories that come from fat

Also, the application's form should have a CheckBox that the user can check if he or she wants to know whether the food is considered low fat. (If the calories from fat are less than 30% of the total calories of the food, the food is considered low fat.)

Use the following test data to determine if the application is calculating properly:
Calories and Fat Percentage Fat
200 calories, 8 fat grams Percentage of calories from fat: 36%
150 calories, 2 fat grams Percentage of calories from fat: 12% (a low-fat food)
500 calories, 30 fat grams Percentage of calories from fat: 54%
Note: Make sure the number of calories and fat grams are not less than 0. Also, the number of calories from fat cannot be greater than the total number of calories. If that happens, display an error message indicating that either the calories or fat grams were incorrectly entered.

4. **Create a project Problem4WorkshopSelectorLastName**

The following table shows a training company's workshops, the number of days of each, and their registration fees.

Workshop	Number of Days Registration	Fee
Handling Stress	3	$1,000
Time Management	3	$800
Supervision Skills	3	$1,500
Negotiation	5	$1,300
How to Interview	1	$500

The training company conducts its workshops in the six locations shown in the following table. The table also shows the lodging fees per day at each location.

Location	Lodging Fees per Day
Austin	$150
Chicago	$225
Dallas	$175
Orlando	$300
Phoenix	$175
Raleigh	$150

When a customer registers for a workshop, he or she must pay the registration fee plus the lodging fees for the selected location. For example, here are the charges to attend the Supervision Skills workshop in Orlando:

Registration: $1,500
Lodging: $300 * 3 days = $900
Total: $2,400

Create an application that lets the user select a workshop from one ListBox and a location from another ListBox. When the user clicks a button, the application should calculate and display the registration cost, the lodging cost, and the total cost.