

ASDV 2440, C# Programming

MP4

1. Create project JoesAutomotic_lastName

Joe's Automotive

Joe's Automotive performs the following routine maintenance services:

- Oil change—\$26.00
- Lube job—\$18.00
- Radiator flush—\$30.00
- Transmission flush—\$80.00
- Inspection—\$15.00
- Muffler replacement—\$100.00
- Tire rotation—\$20.00

Joe also performs other non-routine services and charges for parts and labor (\$20 per hour). Create an application that displays the total for a customer's visit to Joe's. The form should resemble the one shown in Figure 6-28 .

The screenshot shows a Windows application window titled "Automotive". The window contains several sections for selecting services and entering additional charges. The "Oil & Lube" section has two checkboxes: "Oil Change (\$26.00)" and "Lube Job (\$18.00)". The "Flashes" section has two checkboxes: "Radiator Flush (\$30.00)" and "Transmission Flush (\$80.00)". The "Misc" section has three checkboxes: "Inspection (\$15.00)", "Replace Muffler (\$100.00)", and "Tire Rotation (\$20.00)". The "Parts and Labor" section has two text boxes: "Parts" and "Labor (\$)". At the bottom, there is a "Summary" section with four labels and corresponding text boxes: "Services & Labor", "Parts", "Tax (on parts)", and "Total Fees". Three buttons are located at the bottom of the window: "Calculate Total", "Clear", and "Exit".

The application should have the following value-returning methods:

- OilLubeCharges —Returns the total charges for an oil change and/or a lube job, if any.
- FlushCharges —Returns the total charges for a radiator flush and/or a transmission flush, if any.
- MiscCharges —Returns the total charges for an inspection, muffler replacement, and/or a tire rotation, if any.
- OtherCharges —Returns the total charges for other services (parts and labor), if any.
- TaxCharges —Returns the amount of sales tax, if any. Sales tax is 6% and is charged only on parts. If the customer purchases services only, no sales tax is charged.
- TotalCharges —Returns the total charges.

The application should have the following void methods, called when the user clicks the Clear button:

- ClearOilLube —Clears the check boxes for oil change and lube job.
- ClearFlashes —Clears the check boxes for radiator flush and transmission flush.
- ClearMisc —Clears the check boxes for inspection, muffler replacement, and tire rotation.
- ClearOther —Clears the text boxes for parts and labor.
- ClearFees —Clears the labels that display the labels in the section marked Summary.

2. Create project RPC_lastName

Rock, Paper, Scissors Game

Create an application that lets the user play the game of Rock, Paper, Scissors against the computer. The program should work as follows.

1. When the program begins, a random number in the range of 1 through 3 is generated. If the number is 1, then the computer has chosen rock. If the number is 2, then the computer has chosen paper. If the number is 3, then the computer has chosen scissors. (Do not display the computer's choice yet.)
2. The user selects his or her choice of rock, paper, or scissors. To get this input you use clickable PictureBox controls displaying some of the artwork that you will find in the student sample files.
3. The computer's choice is displayed.
4. A winner is selected according to the following rules:
 - If one player chooses rock and the other player chooses scissors, then rock wins. (Rock smashes scissors.)
 - If one player chooses scissors and the other player chooses paper, then scissors wins. (Scissors cuts paper.)
 - If one player chooses paper and the other player chooses rock, then paper wins. (Paper wraps rock.)
 - If both players make the same choice, it is a tie(draw).
5. Your program displays the total number of wins for the Computer and the Player inside 2 label boxes.
6. Clear button that clears everything.

Be sure to modularize the program into methods that perform each major task. Minimum of 5 methods for the game and exactly 1 clear method.