Midterm Programming Projects

Direction: Choose one (1) of the two (2) project choices. For each project, you are required to create at least four (4) functions excluding the main function. Likewise, the main function body should conist ONLY of variable declaration, assignments, and function calls; the main function should not directly preform any calculations or displays. Submit the full source code with documentation to receive points.

Menu Receipt

Applebee's Two for Twenty

Two Entrées + One Appetizer

Appetizer		
Two Caesar Side Salads	(800 Cal.)	
Spinach + Artichoke Dip	(960 Cal.)	
Crunchy Onion Rings	(1300 Cal.)	
Boneless Wings	(1160 Cal.)	
Mozzarella Sticks	(910 Cal.)	
Entré		
Chicken Tenders Basket	(1150 Cal.)	
Oriental Chicken Salad	(1420 Cal.)	
Firecracker Shrimp Cavatappi	(1970 Cal.)	[Plus 3.50]
The American Standard	(1010 Cal.)	
Blackened Tilapia	(510 Cal.)	
Whisky Bacon Burger	(1240 Cal.)	
Double-Glazed Baby Back Ribs - Half Rack	(550 Cal.)	[Plus 3.50]
Cedar Grilled Lemon Chicken	(580 Cal.)	
Fiesta Lime Chicken	(1140 Cal.)	
Three-Cheese Chicken Cavatappi	(1280 Cal.)	

Your program should

1. Display a list of appetizers and allow the user to select one (1). If the user's selection is invalid, give the user the "Two Caesar Side Salads".
2. Display a list of entrées and allow the user to select two (2) separately. For any invalid selection, give the user the "Chicken Tenders Basket".
3. Calculate the user's subtotal, tax (8.87), total, 15%, 18% and 20% gratuity; and then, display a spatially formatted receipt with the user's order and the above values rounded to two decimal places.
4. *Print the receipt to a file named "receipt.txt" as well display it on the screen.

Simple Calculator

Your program should

1. Display a list of operation options (addition, subtraction, multiplication, and division) as well as the option to quit similar to the following:

    1. Addition
    2. Subtraction
    3. Multiplication
    4. Division
    5. Quit

2. Have the user select an option. If the user selects quit, terminate the program; otherwise, prompt the user to enter two numbers, perform the opertion and display the result that should be no more than three decimal places.
   Note: If division is selected and the user tries to divide by zero, display an error.
3. Repeat steps 1 - 2 until the user selects quit.
4. * Instead of using a list allow the user to enter the arithmetic expression or the word "quit".