ENDTERM PROJECT

MOBILE APPLICATION AND GAME DEVELOPMENT DEPARTMENT

INTRODUCTION TO C# PROGRAMMING

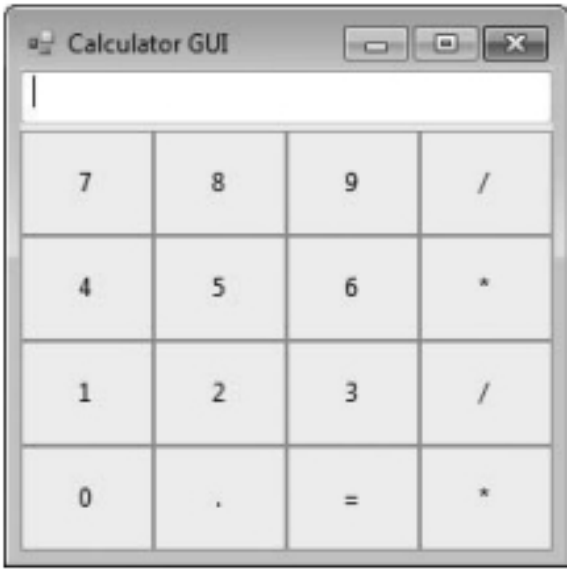
COHORTS: DIPLOMA IN MOBILE APPLICATION AND GAME DEVELOPMENT

INSTRUCTOR: HILLARY CHESARO

DUE DATE: 13TH AUGUST 2019

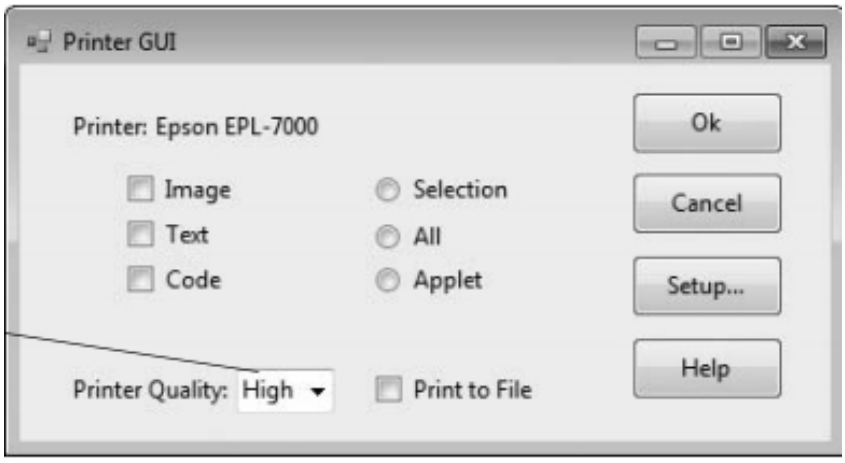
INSTRUCTIONS: *USE THE VISUAL STUDIO IDE FOR CREATING YOUR SOURCE FILES, SAVE INTO ONE FOLDER AND COMPRESS THE FOLDER INTO ZIP FORMAT AND RENAME THE FILE WITH YOUR REGISTRATION NO. THEN SEND TO THE RESPECTIVE GOOGLE CLASSROOM ACCOUNT WITH YOUR FULL NAMES AS THE HEADER FOR EVALUATION BEFORE THE DEADLINE. GOOD LUCK!*

1. Create the GUI in the figure below (you do not have to provide functionality). **(5 mks)**



2. Write a temperature conversion program that converts from Fahrenheit to Celsius. The Fahrenheit temperature should be entered from the keyboard (via a Textbox). A Label should be used to display the converted temperature. Use the following formula for the conversion: *Celsius = (* 5 / 9) x (*Fahrenheit* – 32). **(10 mks)**

3. Create the GUI in the figure below (you do not have to provide functionality**).(5 mks)**



4. Write a program that plays "guess the number" as follows: Your program chooses the number to be guessed by selecting an int at random in the range 1–1000. The program then displays the following text in a label: I have a number between 1 and 1000--can you guess my number? Please enter your first guess. A TextBox should be used to input the guess. As each guess is input, the background color should change to red or blue. Red indicates that the user is getting "warmer," blue that the user is getting "colder."A Label should display either "Too High" or "Too Low," to help the user zero in on the correct answer. When the user guesses the correct answer, display "Correct!" in a message box, change the Form's background color to green and disable the TextBox. Recall that a TextBox (like other controls) can be disabled by setting the control's Enabled property to false. Provide a Button that allows the user to play the game again. When the Button is clicked, generate a new random number, change the background to the default color and enable the TextBox. **(20mks)**

5. Write an app that allows users to process orders for fuzzy dice. The app should calculate the total price of the order, including tax and shipping. Textboxes for inputting the order number, the customer name and the shipping address are provided. Initially, these fields contain text that describes their purpose. Provide Checkboxes for selecting the fuzzy-dice colour and Textboxes for inputting the quantities of fuzzy dice to order. The app should update the total cost, tax and shipping when the user changes any one of the three quantity fields' values. The app should also contain a Button that when clicked, returns all fields to their original values. Use 5% for the tax rate. Shipping charges are Ksh 1.50 for up to 20 pairs of dice. If more than 20 pairs of dice are ordered, shipping is free. All fields must be filled out, and an item must be checked for the user to enter a quantity for that item. **(20mks)**