

University of Guam

Computer Science Department

Project 7: Graphical User Interface Programming

Part A: Temperature Conversion Program (5 points)

Create an XHTML document that will covert temperatures between Celsius and Fahrenheit and Fahrenheit to Celsius.

Use an XHTML form and JavaScript functions to implement the form.

Part B: Quadratic Formula Program (15 points)

Create a Form and JavaScript function that has the following properties:

- Utilizes a Form as a Graphical User Interface that accesses a JavaScript Program(s).
- The GUI must be intuitive and easy to understand.
- The JavaScript program will determine the roots of any second order polynomial utilizing the Quadratic Formula.
- The roots may be real numbers or complex numbers with real and imaginary parts.
- The form will update entered data and results. Display your name in the form.
- Turn in your problem solving phase, code, and browser display

Alternative Part B: (Substitute for above)

For those students that want a bit more challenge you may work in pairs (groups of two) to develop some game that you choose. Possibilities may include Blackjack, TicTacToe, Hangman, or perhaps a Risk game dice roller. The program should be written in JavaScript and utilize a form for input.

Due Date and Grading:

The program is due December 6th at the beginning of class. No late projects will be accepted. Submit, on or before the due date the following for grading: A cover sheet with your name and project name. Program specifications that describe the analysis involved during the problem-solving phase. This must include incremental flow charts developed during the problem solving process and test data for four polynomials two with real roots and two with complex roots. Include source code and a printout of your output in the browser window for two runs of the program. Note as specified on the syllabus a grade of 80% will be awarded for fulfilling all program specifications in a minimal way. At the end of your report include a conclusion section that describes extra work efforts and items that don't work in your program. I will attempt to find the described errors in the source code and award partial credit.