UNIVERSITY OF GLOUCESTERSHIRE
at Cheltenham and Gloucester

Principles of Programming

CT4029

Workbook – Session 4
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In this session, we covered Graphical User Interface (GUI) development in python using tkinter toolkit, which is a built-in python toolkit. We also covered event driven programming, which enables a program to respond in a certain manner when a user defined event occurs. The exercises below will help you practice the concepts covered today.

Section A

1. Question 1:

Write a program that creates a window similar to the one in slide 35, which takes an integer as an input from the user and when the button is pressed it prints the square root of a number in the console.

2. Question 2:

Write a program that creates three different radio buttons in a window along with an integer entry from user. The radio button should have the following options:

1. Calculate square (e.g. $3^2 = 9$)
2. Calculate cube (e.g. $3^3 = 27$)
3. Calculate factorial (e.g. 6! = 6*5*4*3*2*1)

Once user enters an integer, each radio button should print the relevant result in the console.

3. Question 3:

Write a program to create a simple GUI calculator with basic arithmetic operations.

4. Question 4:

write a program, which uses sliders discussed in slide 45 and create a Miles to KM conversion tool. The program should have a GUI interface, which takes value in miles and by using slider convert it in KM. The value of KM should be displayed on the interface as well.