|  |  |
| --- | --- |
| **Programming 1 (PRG1)**  Diploma in IT / DS / CSF / IM / CICTP  Year 1 (2023/24) Semester 1 | Week 15 |
| **Part 1** |
| **Activities : Applications of Programming I - Introduction to GUI** | |

**OBJECTIVES**

At the end of this exercise, students should be able to:

* Writing GUI (Graphical User Interface) Applications in Python
* Writing GUI Applications in Python using Tkinter

Lecture Part 1

Activity 1 - GUI Multiplication Table

Write a GUI Multiplication Table Application with the user interface shown below.

Graphical user interface, application

Description automatically generated

Write a GUI Applications in Python using Tkinter using the following steps:

1. Import Tkinter

2. Create the main window

3. Add the widgets (needed for the application)

(need to organize the widgets using a layout manager)

4. Add the main event loop (for handling user events)

Activity 2 – GUI BMI Calculator

Write a GUI BMI Calculator Application with the user interface shown below.

Graphical user interface, application

Description automatically generated

Formula to calculate bmi:

bmi = weight / (height \* height)

**Activity 3– GUI Temperature Converter**

Write a GUI Temperature Converter Application with the user interface shown below

Graphical user interface, application

Description automatically generated

Formula to convert from c to f:

f = ( c \* 9 / 5) + 32

Formula to convert from f to c:

c = (f – 32 ) \* 5 / 9

c : temperature in celsius

f : temperature in fahreheit

**Activity 4 - Integrate the Multiplication Table and BMI Calculator applications using frames**

Integrate the Multiplication Table and BMI Calculator applications using **frames** as shown below:

Graphical user interface, application

Description automatically generated Graphical user interface

Description automatically generated