ASSIGNMENT 5 - GROUP 1

FINAL PROJECT

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Link for Github: https://github.com/XUANDANG1109/Final_Project

Convertor

Create a program that can be used to converttemperature, length, weight, pressure.Your program should have a menu displayed for the user to choose from, where are listed the convertion options:

. temperature

```
- fahrenheit to celsius
- celsius to fahrenheit
```

. length

```
- miles to km
- km to miles
```

. weight

```
- pound to kilogramms
- kg to pound
```

exit

The program should allow user to choose the desired convertionover and over again until user chooses to quit using it.

 # Import ipywidgets for Graphical User Interface (GUI)

In [2]:
```
from ipywidgets import RadioButtons, Button, GridBox, Layout, ButtonStyle, Text, Output
```

 # Define output

In [3]:
```
output = Output()
```

 # Create input display screen

In [6]:
```
# Create input display screen
input_screen = Text(description = "User Input", layout=Layout(width='300px', height='50px'
display(input_screen)

# Create result display screen
result_screen = Text(description = "Result", disabled=True, layout=Layout(width='300px', h
display(result_screen)

# Create display button
rButton = RadioButtons(
    options=['Km->Mile', 'Mile->Km', 'Kg->Pound', 'Pound->Kg', '°F->°C ', '°C->°F'],
    description='Type:',
    disabled=False
)
display(rButton)

# Create display clear
clear  = Button(description='Clear',
                layout=Layout(width='300px', height='50px'),
                style=ButtonStyle(button_color='gray'))
display(clear)

# Create display conversion
convert  = Button(description='CONVERSION',
                layout=Layout(width='300px', height='50px'),
                style=ButtonStyle(button_color='Darkorange'))

display(convert)
```

 # Define on_click event for button clear

In [7]:
```
def bclear(b):
    input_screen.value = ""
    result_screen.value = ""

clear.on_click(bclear)
```

 # Define convert fomular

In [9]:
```
def convt(b):
    x = float(input_screen.value)
    if rButton.value == "Km->Mile":
        x = float(input_screen.value)
        input_screen.value = input_screen.value + "  Km"
        y = x * 0.62137
        result_screen.value = str(round(y, 2)) + "  Miles"
    elif rButton.value == "Mile->Km":
        x = float(input_screen.value)
        input_screen.value = input_screen.value + "  Miles"
        y = x / 0.62137
        result_screen.value = str(round(y, 2)) + "  Km"
    elif rButton.value == "Kg->Pound":
        x = float(input_screen.value)
        input_screen.value = input_screen.value + "  Kg"
        y = x * 2.2
        result_screen.value = str(round(y, 2)) + "  Pounds"
```

```
    elif rButton.value == "Pound->Kg":
        x = float(input_screen.value)
        input_screen.value = input_screen.value + "  Pounds"
        y = x / 2.2
        result_screen.value = str(round(y, 2)) + "  Kg"
    elif rButton.value == "°F->°C ":
        x = float(input_screen.value)
        input_screen.value = input_screen.value + "  °F"
        y = 5/9 * (x - 32)
        result_screen.value = str(round(y, 2)) + " °C "
    elif rButton.value == "°C->°F":
        x = float(input_screen.value)
        input_screen.value = input_screen.value + "  °F"
        y = (x * 9/5) + 32
        result_screen.value = str(round(y, 2)) + " °C "
convert.on_click(convt)
```

In [ ]: