

3 Problem to Display Current Time

Write a computer program that will output the current date and time. This is a program that does not need an input. There are in-built functions that can detect and read the computer system's clock to produce output in forms that are human understandable.

3.1 Program

```
from datetime import datetime

#from is a keyword used with a module where the class is imported
#import lets the class datetime to be used later

current_date_and_time = datetime.now()

#now is a function called to get the current date and time

print("The current date and time is " + str(current_date_and_time))

formatted = current_date_and_time.strftime("%d/%m/%Y %H:%M:%S")

#strftime is used to format the date in specific and more human friendly and readable ways

print("This is a formatted current date and time: " + str(formatted))

month_formatted = current_date_and_time.strftime("%B %d, %Y %H:%M:%S")

print("This displays the month in letters: " + str(month_formatted))
```

3.2 Output

```
The current date and time is 2023-03-17 16:43:50.603487
This is a formatted current date and time: 17/03/2023 16:43:50
This displays the month in letters: March 17, 2023 16:43:50
```

4 Problem to Convert Temperature Scales

Develop a dynamic computer program that can convert degrees Celsius and degrees Fahrenheit temperature scales to the other. That is, it should be able to read inputs from degrees Celsius to degrees Fahrenheit, likewise from degrees Fahrenheit to degrees Celsius. (Formula for conversion from degrees Celsius to degrees Fahrenheit = $(9/5 * \text{celsius}) + 32$; while formula for conversion from degrees Fahrenheit to degrees Celsius = $(\text{fahrenheit} - 32) * 5/9$)

4.1 Program

```
#1. From degree Celsius to degrees Fahrenheit

celsius = float(input("Please enter the temperature value in degrees Celsius:\n"))
```