Computer Science COMPSCI 111/111G — Mastering Cyberspace

Python 02
Exercise Sheet

Exercise 1: Write a program that asks the user to enter a number of feet and a number of inches. The program should convert the length to a number of meters (with decimal points) the length using metres as the units.

- *1 inch = 2.54 centimetres*
- *1 foot = 12 inches*

```
feet = int(input("Enter the number of feet: "))
inches = int(input("Enter the number of inches: "))

#Converting feet and inches to cm then to metres by dividing by 100
metres = ((feet * 12 * 2.54) + (inches * 2.54)) / 100
print(feet, "feet and", inches, "inches is equal to",metres,"metres.")
```

Use the program below to answer the next two questions:

```
age = int(input("Please enter your age: "))
if (age < 18) :
    print("You can't vote")
    print("You can't drink'')
else :
    print("You can vote")
    print("You can drink")
print("Goodbye")
```

Exercise 2: What would the output be if the user entered an age of 18?

```
Please enter your age: 18
You can vote
You can drink
Goodbye
```

Exercise 3: What would the output be if the user entered an age of 17?

```
Please enter your age: 17
You can't vote
You can't drink
Goodbye
```

Exercise 4: The following program should display a menu and allow the user to select a dish. If the dish does not contain any meat, then the program should output "This is a vegetarian dish", otherwise the program should output "This is not a vegetarian dish". Complete the program:

```
print("Menu")
print("1 - Beef with a white wine sauce")
print("2 - Chicken with a white wine sauce")
print("3 - Potato with a white wine sauce")
print("4 - Cabbage with a white wine sauce")
choice = int(input("Please enter your choice"))
```

```
if choice == 1 or choice == 2:
        print("This is not a vegetarian dish")
else:
        print("This is a vegetarian dish")
```

Exercise 5: Write a program that asks the user to enter a month (as a number). Your program should print out the number of days in the corresponding month (assume that February always has 28 days). An example of output is shown below:

```
Please enter the month (as a number):  7
That month has 31 days
```

```
month = int(input("Please enter a month (as a number): "))
if month == 2:
    print("That month has 28 days")
else:
    if month == 9 or month == 4 or month == 5 or month == 11:
        print("That month has 30 days")
    else:
        print("That month has 31 days")
```