

Practical - 10

AIM

Use conditional statements and different type of loops based on simple example/s.

CODE & OUTPUT

In [1]:

```
# conditional statement: if
food = 'spam'

if food == 'spam':
    print('Ummmm, my favorite!')
    print('I feel like saying it 100 times...')
    print(100 * (food + '! '))
```

```
Ummmm, my favorite!
I feel like saying it 100 times...
spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam!
spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam!
spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam!
spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam!
spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam!
spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam!
spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam! spam!
```

In [2]:

```
# consitional statement: if-else
if food == 'spam':
    print('Ummmm, my favorite!')
else:
    print("No, I won't have it. I want spam!")
```

```
Ummmm, my favorite!
```

In [4]:

```
# conditional statement: if-elif-else
choice = 'c'

if choice == 'a':
    print("You chose 'a'.")
elif choice == 'b':
    print("You chose 'b'.")
elif choice == 'c':
    print("You chose 'c'.")
else:
    print("Invalid choice.")
```

```
You chose 'c'.
```

In [5]:

```
# nested condition
x = 3
if 0 < x:
    if x < 10:
        print("x is a positive single digit.")
```

```
x is a positive single digit.
```

In [6]:

```
# for loop
```

```
for friend in ['Margot', 'Kathryn', 'Prisila']:
    invitation = "Hi " + friend + ". Please come to my party on Saturday!"
    print(invitation)
```

```
Hi Margot. Please come to my party on Saturday!
Hi Kathryn. Please come to my party on Saturday!
Hi Prisila. Please come to my party on Saturday!
```

In [7]:

```
for i in range(5):
    print('i is now:', i)
```

```
i is now: 0
i is now: 1
i is now: 2
i is now: 3
i is now: 4
```

In [8]:

```
for x in range(13): # Generate numbers 0 to 12
    print(x, '\t', 2**x)
```

```
0      1
1      2
2      4
3      8
4     16
5     32
6     64
7    128
8    256
9    512
10   1024
11   2048
12  4096
```

In [10]:

```
# the while statement

number = 0
prompt = "What is the meaning of life, the universe, and everything? "

while number != "42":
    number = input(prompt)
```

```
What is the meaning of life, the universe, and everything? 5
What is the meaning of life, the universe, and everything? 67
What is the meaning of life, the universe, and everything? 42
```

In [11]:

```
name = 'Harrison'
guess = input("So I'm thinking of person's name. Try to guess it: ")
pos = 0

while guess != name and pos < len(name):
    print("Nope, that's not it! Hint: letter ", end='')
    print(pos + 1, "is", name[pos] + ". ", end='')
    guess = input("Guess again: ")
    pos = pos + 1

if pos == len(name) and name != guess:
    print("Too bad, you couldn't get it. The name was", name + ".")
else:
    print("\nGreat, you got it in", pos + 1, "guesses!")
```

```
So I'm thinking of person's name. Try to guess it: Linda
Nope, that's not it! Hint: letter 1 is H. Guess again: Harry
```

Nope, that's not it! Hint: letter 2 is a. Guess again: harrison
Nope, that's not it! Hint: letter 3 is r. Guess again: Harrison

Great, you got it in 4 guesses!