Name: Uvan Shankar A P

Roll No. : CH.EN.U4CSE20173

Cognizance

Task-3

Q-1

```
D:\Cognizance\Task-3>"C:/Users/Uvan Shankar/AppData/Local/Microsoft/WindowsApps/python3.9.exe" d:/Cognizance/Task-3/q-1.py
First number: 10
Last number: 15
The Final Vector:
[10  0  0  0  0  0 11  0  0  0  0  0 12  0  0  0  0  0 13  0  0  0  0  0
 14  0  0  0  0  0 15]
```

Q-2

```
D:\Cognizance\Task-3>"C:/Users/Uvan Shankar/AppData/Local/Microsoft/WindowsApps/python3.9.exe" d:/Cognizance/Task-3/q-2.py
First Array:
[ 1 0 0 0 1 1 ]

Second Array:
[ 1 0 0 0 1 0 ]

Are both the arrays same? False
```

Q-3

```
D:\Cognizance\Task-3>"C:/Users/Uvan Shankar/AppData/Local/Microsoft/WindowsApps/python3.9.exe" d:/Cognizance/Task-3/q-3.py
nan
True
False
nan
False
```

Q-4

```
D:\Cognizance\Task-3>"C:/Users/Uvan Shankar/AppData/Local/Microsoft/WindowsApps/python3.9.exe" d:/Cognizance/Task-3/q-4.py
Amrita School Of Engineering Chennai Campus
D:\Cognizance\Task-3>
```

Q-5-3

```
D:\Cognizance\Task-3>"C:/Users/Uvan Shankar/AppData/Local/Microsoft/WindowsApps/python3.9.exe" d:/Cognizance/Task-3/q-5-1.py
Enter the size of the array: 5
The identity matrix is:
[[1 0 0 0 0]
 [0 1 0 0 0]
 [0 0 1 0 0]
 [0 0 0 1 0]
 [0 0 0 0 1]]
```

Q-5-4

```
D:\Cognizance\Task-3>"C:/Users/Uvan Shankar/AppData/Local/Microsoft/WindowsApps/python3.9.exe" d:/Cognizance/Task-3/q-5-2.py
Before changing:
 The data type is int32
 The array is
[1 2 3 4 5 6 7]
After changing:
 The data type is float16
 The array is
[1. 2. 3. 4. 5. 6. 7.]
```