In [1]:
```
#1. Write a NumPy program to create an array of 10 zeros, 10 ones, and 10 fives
import numpy as np

# Creating arrays
zeros_array = np.zeros(10, dtype=int)
ones_array = np.ones(10, dtype=int)
fives_array = np.full(10, 5, dtype=int)

# Concatenating all arrays
result_array = np.concatenate([zeros_array, ones_array, fives_array])

# Display the result
print(result_array)
```

```
[0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 5 5 5 5 5 5 5 5 5 5]
```

In [2]:
```
 #2. Write a NumPy program to create a 3x3 matrix with values ranging from 2 to 10.
import numpy as np

# Creating a 3x3 matrix with values from 2 to 10
matrix = np.arange(2, 11).reshape(3, 3)

# Display the matrix
print(matrix)
```

```
[[ 2  3  4]
 [ 5  6  7]
 [ 8  9 10]]
```

In [4]:
```
#3. Write a NumPy program to create an array with values ranging from 12 to 38.
import numpy as np
array=np.arange(12,39)
print(array)
```

```
[12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35
 36 37 38]
```

In [6]:
```
# 4. Write a NumPy program to convert a list and tuple into arrays. Input: my_list = [1, 2, 3

# Input: my_tuple = ([8, 4, 6], [1, 2, 3])
import numpy as np
my_list=[1,2,3,4,5,6,7,8]
my_tuple=([8,4,6],[1,2,3])
array_from_list=np.array(my_list)
array_from_tuple=np.array(my_tuple)
print("array from list is : ",array_from_list)
print("array from tuple is : ",array_from_tuple)
```

```
array from list is :  [1 2 3 4 5 6 7 8]
array from tuple is :  [[8 4 6]
 [1 2 3]]
```

In [ ]: