Log-Book: Week-1

Output:-

```
import numpy as np

SID = 2458836
last_two = SID % 100
if last_two < 10:
    num_elements = last_two + 100
else:
    num_elements = last_two

a = np.arange(num_elements)
print("Vector a:\n", a)
```

```
Vector a:
 [ 0  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
 24 25 26 27 28 29 30 31 32 33 34 35]
```

```
a_2d = a.reshape(1, -1)
print("2D array with one row:\n", a_2d)
```

```
2D array with one row:
 [[ 0  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
  24 25 26 27 28 29 30 31 32 33 34 35]]
```


```
a_2d = a.reshape(1, -1)
print("2D array with one row:\n", a_2d)
```

```
2D array with one row:
 [[ 0  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
  24 25 26 27 28 29 30 31 32 33 34 35]]
```


```
b = a_2d.copy()
print("Copied array:\n", b)
```

```
Copied array:
 [[ 0  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
  24 25 26 27 28 29 30 31 32 33 34 35]]
```

```
print("Shape of the array:", b.shape)
```

```
Shape of the array: (1, 36)
```

Code:-

```
import numpy as np

SID = 2458836
last_two = SID % 100
if last_two < 10:
    num_elements = last_two + 100
```

```
else:
    num_elements = last_two

a = np.arange(num_elements)
print("Vector a:\n", a)
a_2d = a.reshape(1, -1)
print("2D array with one row:\n", a_2d)
b = a_2d.copy()
print("Copied array:\n", b)
print("Shape of the array:", b.shape)
```