

Log-Book: Week-1

Output:-

```
j1
Os ▶ import numpy as np

SID = 2450489
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 36 37 38 39 40 41 42 43 44 45 46 47
48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71
72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88]
```

```
j1
Os 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 36 37 38 39 40 41 42 43 44 45 46 47
48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71
72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88]]
```

```
j1
Os 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 36 37 38 39 40 41 42 43 44 45 46 47
48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71
72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88]]
```

```
j1
Os ▶ print("Shape of the array:", b.shape)
```

Shape of the array: (1, 89)

Code:-

```
import numpy as np

SID = 2450489
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)
```