Lab 6

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Batch: BSCS 6th semester

Subject: AI Lab

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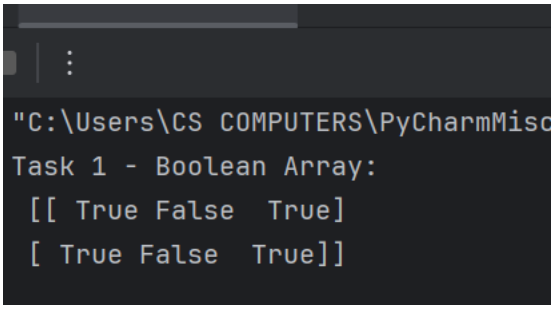
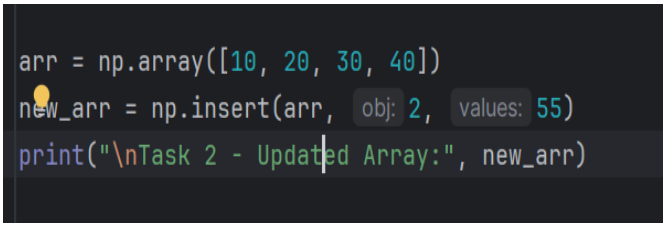
Task 1

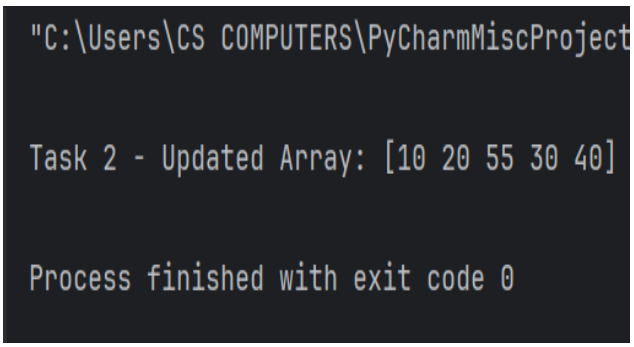
Output



Task 2



Output



Task 3

```
sequence = np.arange(0, 101, 2)
print("\nTask 3 - Sequence:", sequence)
```

Output

```
Task 3 - Sequence: [  0   2   4   6   8  10  12  14  16  18  20  22  24  26  28  30  32  34
  36  38  40  42  44  46  48  50  52  54  56  58  60  62  64  66  68  70
  72  74  76  78  80  82  84  86  88  90  92  94  96  98 100]
```

Task 4

```
mat1 = np.array([[1, 2], [3, 4]])
mat2 = np.array([[5, 6], [7, 8]])
result_matrix = np.dot(mat1, mat2)
print("\nTask 4 - Matrix Multiplication:\n", result_matrix)
```

Output

```
Task 4 - Matrix Multiplication:
 [[19 22]
 [43 50]]

Process finished with exit code 0
```

Task 5

```
arr_1d = np.array([5, 10, 15, 20, 25])
num_to_check = 15
exists = num_to_check in arr_1d
print("\nTask 5 - Number Exists?", exists)
```

Output

```
"C:\Users\CS COMPUTERS\PyCharmMiscProject

Task 5 - Number Exists? True

Process finished with exit code 0
```