Python Programming

LABORATORY MANUAL

B.Tech Semester -IV

Subject Code: (KNC-402)

Session: 2020-21, Even Semester

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JSS MAHAVIDYAPEETHA
DEPARTMENT OF INFORMATION TECHNOLOGY
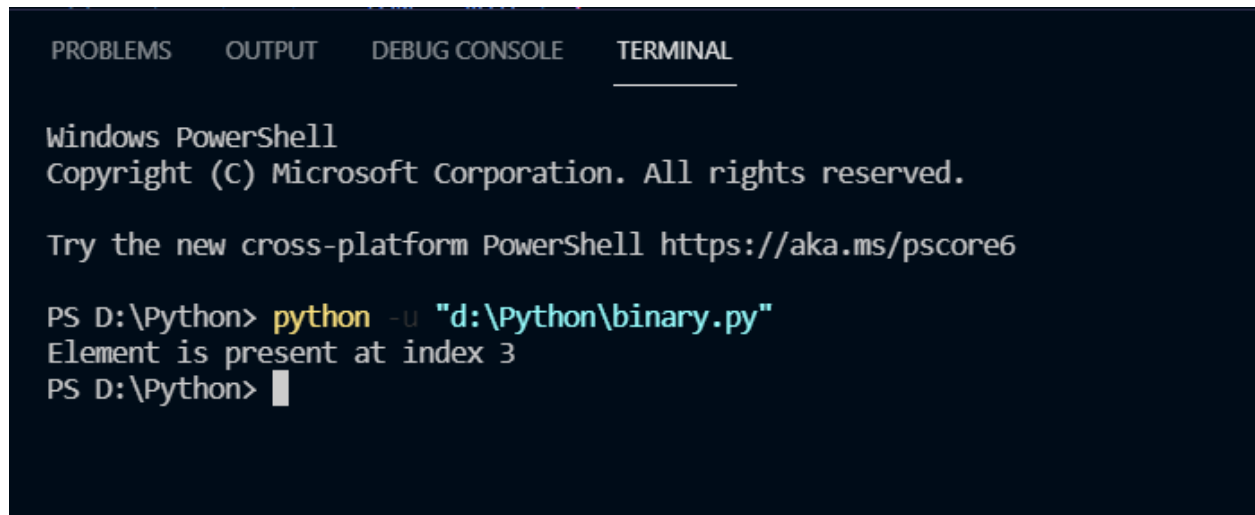## JSS ACADEMY OF TECHNICAL EDUCATION

C-20/1, SECTOR-62, NOIDA

OBJECT-:
Write a python program for Binary Search.

PROGRAM-:

```python
def binary_search(arr, x):
    low = 0
    high = len(arr) - 1
    mid = 0

    while low <= high:

        mid = (high + low)

        if arr[mid] < x:
            low = mid + 1

        elif arr[mid] > x:
            high = mid - 1

        else:
            return mid

    return -1

arr = [ 2, 3, 4, 10, 40 ]
x = 10

result = binary_search(arr, x)

if result != -1:
    print("Element is present at index", str(result))
else:
    print("Element is not present in array")
```

OUTPUT-:

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL

Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS D:\Python> python -u "d:\Python\binary.py"
Element is present at index 3
PS D:\Python>
```