SINDH MADRESSATUL ISLAM UNIVERSITY KARACHI
CHARTERED BY GOVERNMENT OF SINDH,RECOGNIZED BY HEC.

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Dept : Information Technology

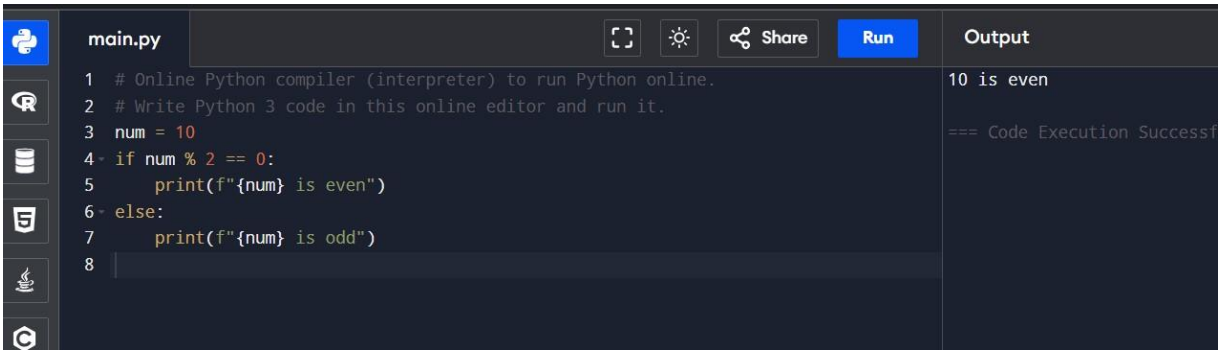
Roll No : BIT-24S-005

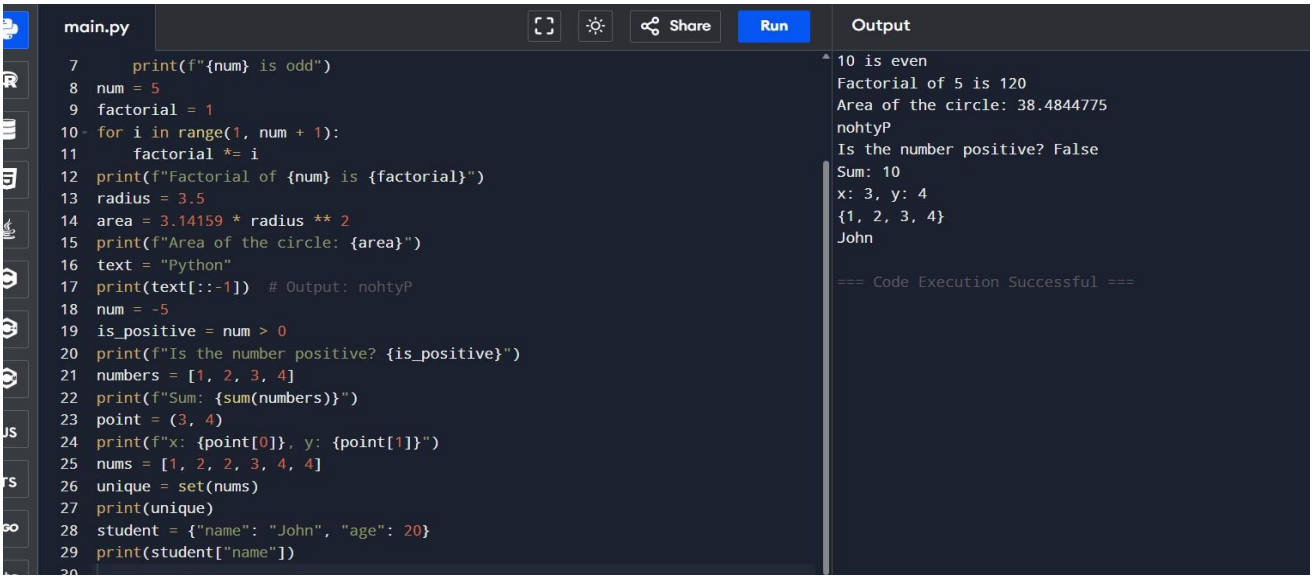
Subject : Artificial Intelligence

(LAB TASKS)

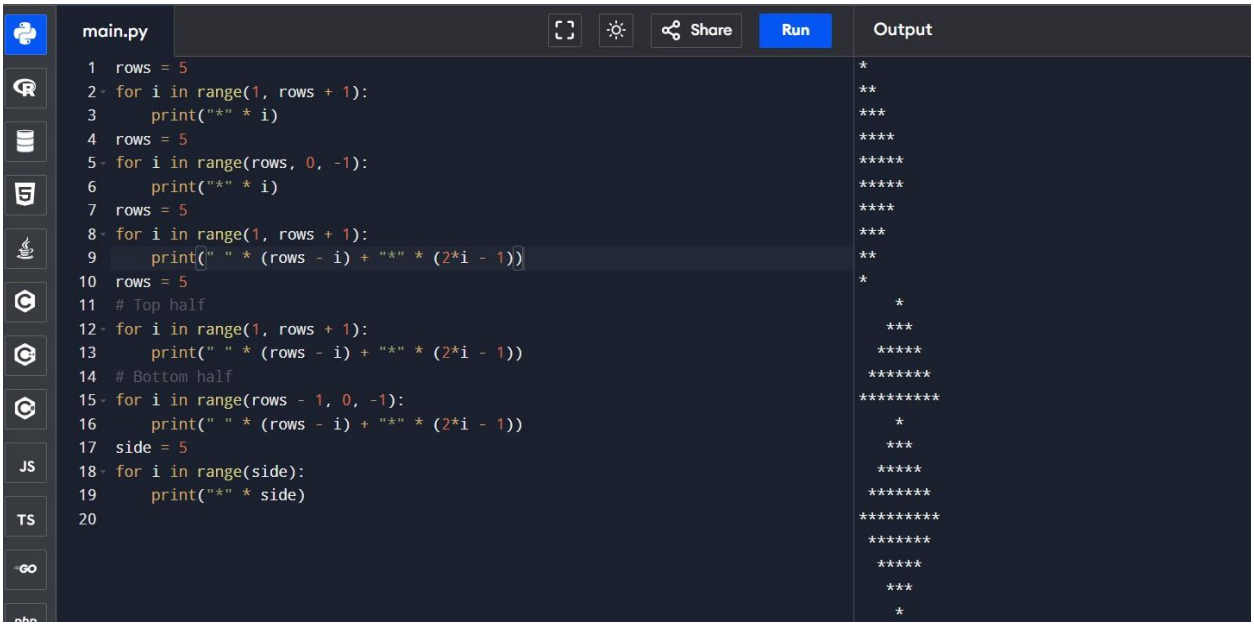
LAB #01

Q. MAKE 2 -2 PROGRAMS OF EACH DATA TYPE





Q. MAKE UP TO 5 SHAPE PROGRAMS USING



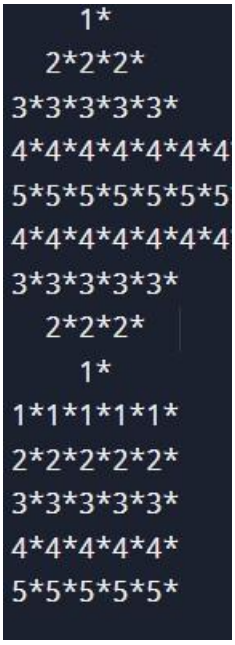
Q. MAKE SAME SHAPES YOU HAVE MADE IN TASK 2 USING * MULTIPLE BY NUMBER

main.py

Share Run

```python
rows = 5
for i in range(1, rows + 1):
    print(f"{i}*" * i)
rows = 5
for i in range(rows, 0, -1):
    print(f"{i}*" * i)
rows = 5
for i in range(1, rows + 1):
    line = (f"{i}*" * (2*i - 1)).center(2*rows)
    print(line)
rows = 5
# Top half
for i in range(1, rows + 1):
    line = (f"{i}*" * (2*i - 1)).center(2*rows)
    print(line)
# Bottom half
for i in range(rows - 1, 0, -1):
    line = (f"{i}*" * (2*i - 1)).center(2*rows)
    print(line)
side = 5
for i in range(1, side + 1):
    print(f"{i}*" * side)

```

Output

```
1*
2*2*
3*3*3*
4*4*4*4*
5*5*5*5*5*
5*5*5*5*5*
4*4*4*4*
3*3*3*
2*2*
1*
    1*
  2*2*2*
3*3*3*3*3*
4*4*4*4*4*4*4*
5*5*5*5*5*5*5*5*5*
    1*
  2*2*2*
3*3*3*3*3*
4*4*4*4*4*4*4*
5*5*5*5*5*5*5*5*5*
4*4*4*4*4*4*4*
3*3*3*3*3*
  2*2*2*
    1*
```