

## Practical 4 :-

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### Pattern 1 :-

```
In [1]: size = int(input("Enter size: "))
        for i in range(size):
            # 65 is the ASCII value of 'A'
            ch = 65 + i
            for j in range(size - i):
                print(chr(ch), end = " ")
            print()
```

```
A A A A A A A A A
B B B B B B B B
C C C C C C C
D D D D D D
E E E E E
F F F F F
G G G G
H H H
I I
J
```

### Pattern 2 :-

```
In [2]: size = int(input("Enter size: "))
        c = 1
        for i in range(size):
            for j in range(i + 1):
                print(c, end = " ")
                c += 1
            print()
```

```
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
```

### Pattern 3 :-

```
In [3]: size = int(input("Enter size: "))
        for i in range(size):
            for j in range(size):
                if i%2 == 0 and j%2 != 0:
                    print(" ", end = " ")
```

```

        elif i%2 != 0 and j%2 == 0:
            print(" ", end = " ")
        else:
            print("*", end = " ")
    print()

```

```

*   *   *   *   *
  *   *   *   *   *
*   *   *   *   *
  *   *   *   *   *
*   *   *   *   *
  *   *   *   *   *
*   *   *   *   *
  *   *   *   *   *
*   *   *   *   *
  *   *   *   *   *

```

## Pattern 4 :-

```

In [4]: size = int(input("Enter size: "))

for i in range(size):
    # Logic to print blank spaces
    print(" " * (size - (i+1)), end = "")
    # Logic to print stars along with spaces
    print("* " * (i+1))

```

```

      *
     * *
    * * *
   * * * *
  * * * * *
 * * * * * *
* * * * * * *

```

## Pattern 5 :-

```

In [5]: size = int(input("Enter size: "))

for i in range(size):
    for j in range(i + 1):
        if j == 0 or j == i or i == 0 or i == size-1:
            print("*", end = " ")
        else:
            print(" ", end = " ")
    print()

```

```

*
* *
*  *
*   *
*    *
*     *
*      *
*       *
*        *
* * * * *

```

## Pattern 6 :-

```

In [6]: size = int(input("Enter size: "))

for i in range(size):
    if i%2 == 0:
        print("*" * size)
    else:
        print(" " * (size-1) + "*")

```

```

*****
      *
*****
      *
*****
      *
*****
      *
*****
      *
*****
      *

```

## Pattern 7 :-

```

In [7]: size = int(input("Enter size: "))

for i in range(size):
    count = 1
    for j in range(i+1):
        print(count, end = " ")
        count += 1
    print()

```

```

1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
1 2 3 4 5 6
1 2 3 4 5 6 7
1 2 3 4 5 6 7 8
1 2 3 4 5 6 7 8 9
1 2 3 4 5 6 7 8 9 10

```

In [ ]: