Code: CSA0810
Subject: python programming

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ASSIGNMENT-5

TO create an inverted pyramid & a hollow block using matrix in python, we can use nested loops to build patterns.

1. Inverted pyramid:

The inverted pyramid is essentially an upside down pyramid, we can create by using spaces in first row & then gradually increasing no. of '*'.

```
def inverted_pyramid(rows):
    for i in range(rows, 0, -1):
        for j in range(rows, -i):
            print(" ", end="")
        for j in range(2*i-1):
            print("*", end="")
        print()
rows = int(input("Enter no. of rows: "))
inverted_pyramid(rows)
```

2. Hollow Block:

To create a hollow block, we can print (*) on the first and last rows as well as on the first & last columns. the interior of the block is filled with the spaces.

*'Hollow_block' function genates the hollow block pattern.

```
def hollow_block(rows, cols):
    for i in range(rows):
        for j in range(cols):
            if(i==0 or i==rows-1 or j==0 or j==cols-1:
                print("*", end=" ")
            else:
                print(" ", end=" ")
        print()
rows = int(input("enter no. of rows: "))
cols = int(input("enter no. of columns:"))
hollow_block(rows, cols)
```

* The number of rows and colums determines the dimensions of the block.

Output:

1. Inverted pyramid:

2. Hollow Block: