SUBMITTED BY:

Name: Deepika Rawat

Course: BCA (Semester-11)

Envollment no: 2442010176

Section: D(19)

SUBMITTED TO:

Faculty Name: Suyash Sin Date of Submission: 05/Sep/ 2025

ASSIGNMENT *: Pattern *:

```
01. *
 CODE:
   n = "m+cimput ("enter no: ""))
   for i in range (n);
       for j in range (n):
           print (" * " , end = " ")
       print()
95.
   n = "nt (input ("enter no:"))
  for i in range (1, n+1):
      For j in range (i):
           print ( " *", end = " ")
       point()
03. * *
  CODE:
  n = int(imput("center no:"))
  for i in range (n, 0, -1)
  for j in range (i):
print ("", end = "")
   print()
```

```
DRY RUN:-
i = 0 \rightarrow j = 0 \dots 3 \rightarrow * * * * *
i = 1 \rightarrow j = 0 \dots 3 \rightarrow * * * * *
i = 2 \rightarrow j = 0 \dots 3 \rightarrow * * * * *
i = 2 \rightarrow j = 0 \dots 3 \rightarrow * * * * *
i = 3 \rightarrow j = 0 \dots 3 \rightarrow * * * * *
```

OBSERVATION:-Make a full square of starts.

```
DRYRUN:-

i=1 \Rightarrow j=0 \Rightarrow *

i=2 \Rightarrow j=0,1 \Rightarrow *

i=3 \Rightarrow j=0,2 \Rightarrow *

i=4 \Rightarrow j=0,...3 \Rightarrow *

i=5 \Rightarrow j=0,...4 \Rightarrow *
```

observation:stars keep increasing raw by row-(tringle shape).

OBSERVATION:stan Keep decreasing row by row (invented triangle).

```
04.1
                                 DRY RUN:-
   14
                                 i= 1 > 7= 1 >1
    1 1 3
                                 1=2 = j=1 + 1, j=2 ++
    1 * 3 *
                                 1=3 - 1=1 - 1 , 1=2 - 4 , 1= 2 - 3,
    1 * 3 * 5
                                 1=471=17111=2741=373,1=474
 CODE :-
                                 1=57g=171,g=20xg=303,g=17+,
  n=int(input ("eenter no:"))
  for i in range (1, n+1):
                                       0=5 +5
     for j in range (1,1+1):
                                 OBSERVATION:
         if j 1.2 == 0: end = "")
                                 Number at odd blaces. Stark at
05. print() print(j.end = ee m)
                                  even place.
                                 DRY RUN :-
                                 Each row > # *
                                  [5 _ _ - reprepent]
 -:3do>
  n = int (input ( erenter no: "))
  for i in range (n):
      print( er * " er _ " + (n-2),"
                                  OBESERVATION: -
       * 19)
                                  Square shape but hollow inside
                                  with - .
 06. 4.
                                 DRY RUN:-
                                 i=5 → * - - - - *
                                  =+- *--+
                                  1=3 → *--*
  code:-
                                  1=2 = # - *
   n = int (input (exenter no: "))
                                  =1 > **
   for i'm range (n,0,-1):
   print (eex " * (i-1) "+ ")
                                  OBESERVATION: -
                                  Invented howove triangle with
                                  - blw stars.
                                 DRY RUN:-
                                 i= 1 > 4 space + *
                                  1=2 -> 3 space + * *
                                  1=3 → 2 space + * * *
  -: 300D
                                  1=4 -> 1 space + * * * *
  n = int(input (eeenter no: "1)
                                  1=5 → 0 space + * * * *
  for i'm range (1,7+1):
  print (ee *** (n-1), eex ** ;)
                                  OBESERVATION: -
                                  Star from a right-side A.
```

```
88 * * * * *
                                   DRY RUN:-
                                   1= 0 → 0 Space + 5 stars
                                   1= 1 > 1 Space + 4 Stars
                                   i= 2 > 2 Space + 3 stars
CODE: -
                                   1=3 = 3 Spare + 2 staru
                                   1=4 > 4 Space + 1 stars
 n = int (input (menterno: "))
  for in range (n):
       pnn+ (" " " + i, er + " + (n-i))
                                   OBSERVATION: -
                                    Stan from a night side triangle
                                    (like V)
09 *** * * *
                                  DRY RUN :-
    ***
                                   * * *
                                   i=4 -> * * * *
                                                       ***
                                   1=3 -> * * *
                                   1=2 > * */
 CODE:-
                                   i=1 -> *
  n = "mt (input (eeenter no:"))
   for i in range (n, 0, -1):
   print (eex" + 1 + ee "+ (2*(n-i))
                                  OBSERVATION:-
                                   LOOK like top half of an hourglass
   + (( * " * 1)
010 x
                                  DRY RUN:-
                                  1=1 >x
                                               + 8 space + *
                                  1=2 = ++
                                               + 6 spau + * *
                                  1=3 + A +
                                                    Space + + + +
                                  i= 4 + * * * + 2 space + * * * *
 -:3000
                                  1=5 > + * * * * + 0 Shall + * 4 * + 4
 n = int (input (eventer no: 97))
 for i inrange (1, n+1):
     print ( ee * " * 1 + ee = " * (2*
                                  OBSERVATION:-
     (n-9)) + ee* ">*1)
                                  Look like button half of an hounglass
011.
                                 DRYRUN: - First loop
                                                      Second Loop
                                  1=5ラオオオナオオオオオ
                                  9=4+ ***
                                  1=3+4*
                                  1=2> **
                                                      ****
                                  1=1+*
code: - n = in+cinput (eeenter no: "))
     for in ronge (n.o. -1):
        print( (1x 1+11 "+ (2*(n-1))
                                  OBSERVATIONS-
     for in range (1,n+1):
                                  full hounglass Idiamond pattern.
       print (ce * 52 i+ ce " + (2*(n-i))
        + ee + " 9x 1).
```

```
012 1
                                DRY RUNS -
     12
                               1= 1 - 1=1 -1
     123
                                1=2-1=1/2-12
     1234
                                 1=3+0=1..3+123
                                 i=+→j=1.,4→1234
 -: 3000
  n = m+ (input (eeenter no:"))
  for i in range (1, m+1):
      for j in range(1, i+1):
                                 OBSERVATIONS:-
         print (g, end = ee as)
                                 Numbers start from I in each
       Print ()
                                 YOW .
63. 1234
                                DRY RUN:-
    123
                                [=+ -j=1..4-1234
    12
                                i = 3 \rightarrow j = 1..3 \rightarrow 123
     1
                                =2 = 1 = 1 .. 2 - 1 2
-: 3000
                                i=1>j=1→ 1
 n = int (input ("enter no:"))
 for I in range (n, 0, -1):
    for j in range (1, ++1);
                                OBSERVATION:-
         print (j, end = ee 17)
                                 Numbers Start from I in each
     print()
                                 row. A but upside down.
019 1
                                DRY RUN:-
    23
                                1=1 > k=1 > print 1 > k=2
    4 5 6
                                1=2 → K=2,3 → print 23 → K=4
    78 910
                                1=3 + K=4, 5, 6 > print 4 5 6 > x=7
CODE: - n=int(input(erenter no:")) 1=4 = K=7, 8,9,10 - print 7 8 9 10 ->
                                       K=11.
        K = 1
       for i in range (1,n+1):
       for in range (i):
           paint (K, end = er ")
                                 OBSERVATION:-
                                Number keep invieasing continous
           K+=1
       print ()
                                 row by row.
915. **
                                DRY RUN: - 15+ Loop
                                                     2nd woop
                                                    1= 9 > * * * *
                                1=1 + x
                                                    1=3 -> ***
                                1=2 > * *
                                                    1=2 > **
                                1=3+++
                                                    i=1 > *
                                1=4 > * * * *
ODE:- n= int(input(enterno:"))
     for i invange (1 (n+1):
     for in range (n-1,0,-1):
        print ( " + " + i).
```