

Pattern Programs

Program 1:

```
C pattern1.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no,i,j;
5      printf("Enter no:");
6      scanf("%d",&no);
7      for(i=1;i<=no;i++){
8          for(j=1;j<=i;j++){
9              printf("%d",i);
10             }
11             printf("\n");
12         }
13         return 0;
14     }
15 }
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS Code

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc pattern1.c -o pattern1 } ; if ($?) { .\pattern1 }
Enter no:5
1
22
333
4444
55555
PS C:\Users\sowja\OneDrive\Desktop\Python>
```

Program 2:

```
C pattern2.c X
C pattern2.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no,i,j;
5      printf("Enter no:");
6      scanf("%d",&no);
7      for(i=1;i<=no;i++){
8          for(j=1;j<=i;j++){
9              printf("%d",j);
10             }
11             printf("\n");
12         }
13         return 0;
14     }
15 }
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS Code

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc pattern2.c -o pattern2 } ; if ($?) { .\pattern2 }
Enter no:5
1
12
123
1234
12345
PS C:\Users\sowja\OneDrive\Desktop\Python>
```

Program 3:

```
C pattern3.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no,i,j;
5      printf("Enter no:");
6      scanf("%d",&no);
7      for(i=1;i<=no;i++){
8          for (j=1;j<=i;j++)
9          {
10             printf("%d",no);
11         }
12         printf("\n");
13     }
14     return 0;
15 }
```

OUTPUT PROBLEMS DEBUG CONSOLE **TERMINAL** PORTS

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc pattern3.c -o pattern3 } ; if ($?) { .\pattern3 }
Enter no:5
5
55
555
5555
55555
PS C:\Users\sowja\OneDrive\Desktop\Python>
```

Program 4:

```
C pattern4.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no,i,j,a=1;
5      printf("Enter no:");
6      scanf("%d",&no);
7      for(i=1;i<=no;i++){
8          for (j=1;j<=i;j++)
9          {
10             printf("%d ",a);
11             a++;
12         }
13         printf("\n");
14     }
15     return 0;
16 }
17
```

OUTPUT PROBLEMS DEBUG CONSOLE **TERMINAL** PORTS

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc pattern4.c -o pattern4 } ; if ($?) { .\pattern4 }
Enter no:5
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
PS C:\Users\sowja\OneDrive\Desktop\Python>
```

Program 5:

```
C pattern5.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no,i,j,s;
5      printf("Enter no:");
6      scanf("%d",&no);
7      for(i=1;i<=no;i++){
8          for(s=i;s<=no;s++)
9              {
10                 printf(" ");
11             }
12             for (j=1;j<=i;j++)
13                 {
14                     printf(" %d",j);
15                 }
16             printf("\n");
17         }
18     return 0;
19 }
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc pattern5.c -o pattern5 } ; if ($?) { .\pattern5 }
Enter no:5
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
PS C:\Users\sowja\OneDrive\Desktop\Python> 
```

Program 6:

```
C pattern6.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no,i,j,s;
5      printf("Enter no:");
6      scanf("%d",&no);
7      for(i=1;i<=no;i++){
8          for(s=i;s<=no;s++)
9              {
10                 printf(" ");
11             }
12             for (j=1;j<=i;j++)
13                 {
14                     printf(" %d",j);
15                 }
16             printf("\n");
17         }
18     }
19     for(i=no-1;i>=1;i--){
20         for(s=i;s<=no;s++)
21             {
22                 printf(" ");
23             }
24             for (j=1;j<=i;j++)
25                 {
26                     printf(" %d",j);
27                 }
28             printf("\n");
29         }
30     return 0;
31 }
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc pattern6.c -o pattern6 } ; if ($?) { .\pattern6 }
Enter no:5
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1
PS C:\Users\sowja\OneDrive\Desktop\Python> 
```

Program 7:

```
C pattern7.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no,i,j,s;
5      printf("Enter no:");
6      scanf("%d",&no);
7      for(i=no;i>1;i--){
8          for(s=i;s<=no;s++)
9              {
10                 printf(" ");
11             }
12             for (j=1;j<=i;j++)
13                 {
14                     printf(" %d",j);
15                 }
16             printf("\n");
17         }
18         for(i=1;i<=no;i++){
19             for(s=i;s<=no;s++)
20                 {
21                     printf(" ");
22                 }
23             for (j=1;j<=i;j++)
24                 {
25                     printf(" %d",j);
26                 }
27             printf("\n");
28         }
29     }
30
31     return 0;
32 }
```

OUTPUT PROBLEMS DEBUG CONSOLE **TERMINAL** PORTS

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python" ; if ($?) { gcc pattern7.c -o pattern7 } ; if ($?) { .\pattern7 }
Enter no:5
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1
1 2 3
1 2 3 4
1 2 3 4 5
PS C:\Users\sowja\OneDrive\Desktop\Python>
```

Program 8:

```
C pattern8.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no,i,j,s;
5      printf("Enter no:");
6      scanf("%d",&no);
7      for(i=no;i>1;i--){
8          for (j=1;j<=i;j++)
9              {
10                 printf(" %d",j);
11             }
12             printf("\n");
13         }
14         for(i=1;i<=no;i++){
15             for (j=1;j<=i;j++)
16                 {
17                     printf(" %d",j);
18                 }
19             printf("\n");
20         }
21     }
22
23     return 0;
24
25 }
```

OUTPUT PROBLEMS DEBUG CONSOLE **TERMINAL** PORTS

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python" ; if ($?) { gcc pattern8.c -o pattern8 } ; if ($?) { .\pattern8 }
Enter no:5
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
PS C:\Users\sowja\OneDrive\Desktop\Python>
```

Program 9:

```
C pattern9.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no,i,j;
5      printf("Enter no:");
6      scanf("%d",&no);
7      for(i=1;i<=no;i++){
8          for (j=1;j<=i;j++)
9          {
10             printf("%d",j);
11         }
12         printf("\n");
13     }
14     for(i=no;i>=1;i--){
15         for (j=1;j<=i;j++)
16         {
17             printf("%d",j);
18         }
19         printf("\n");
20     }
21     return 0;
22 }
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc pattern9.c -o pattern9 } ; if ($?) { .\pattern9 }
Enter no:5
1
12
123
1234
12345
12345
1234
123
12
1
PS C:\Users\sowja\OneDrive\Desktop\Python>
```

Program 10:

```
C pattern910.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no,i,j;
5      printf("Enter no:");
6      scanf("%d",&no);
7      for(i=1;i<=no;i++){
8          for (j=1;j<=no;j++)
9          {
10             if(i==1||j==1||i==no||j==no)
11                 printf("*");
12             else
13                 printf(" ");
14         }
15         printf("\n\n");
16     }
17     return 0;
18 }
19
20
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc pattern910.c -o pattern910 } ; if ($?) { .\pattern910 }
Enter no:5
* * * * *
*      *
*      *
*      *
* * * * *
PS C:\Users\sowja\OneDrive\Desktop\Python>
```

Program 11:

```
C xpattern.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no, i, j;
5      printf("Enter no:");
6      scanf("%d", &no);
7
8      for(i = 0; i < no; i++) {
9          for(j = 0; j < no; j++) {
10             if(j == i || j == no - 1 - i)
11                 printf("*");
12             else
13                 printf(" ");
14         }
15         printf("\n");
16     }
17
18     return 0;
19 }
20
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc xpattern.c -o xpattern } ; if ($?) { .\xpattern }
Enter no:5
* *
* *
*
* *
* *
PS C:\Users\sowja\OneDrive\Desktop\Python>
```

Program 12:

```
C zpattern.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no, i, j;
5      printf("Enter no:");
6      scanf("%d", &no);
7
8      for(i = 0; i < no; i++) {
9          for(j = 0; j < no; j++) {
10             if(i == 0 || i == no - 1 || j == no - 1 - i)
11                 printf("*");
12             else
13                 printf(" ");
14         }
15         printf("\n");
16     }
17
18     return 0;
19 }
20
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS [Code](#)

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc zpattern.c -o zpattern } ; if ($?) { .\zpattern }
Enter no:5
*****
*
*
*
*****
PS C:\Users\sowja\OneDrive\Desktop\Python>
```

Program 13:

```
C pattern13.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no,i,j;
5      printf("Enter no:");
6      scanf("%d",&no);
7      for(i=no;i>=0;i--){
8          for (j=1;j<=i;j++)
9              {
10                 printf("*");
11             }
12             printf("\n");
13         }
14         return 0;
15     }
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if (\$?) { gcc pattern13.c -o pattern13 } ; if (\$?) { .\pattern13 }

Enter no:5

```
*****
*****
***
**
*
```

PS C:\Users\sowja\OneDrive\Desktop\Python>

Program 14:

```
C pattern14.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no,i,j;
5      printf("Enter no:");
6      scanf("%d",&no);
7      for(i=1;i<=no;i++){
8          for (j=i;j<=no;j++)
9              {
10                 printf("%d",j);
11             }
12             printf("\n");
13         }
14         return 0;
15     }
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if (\$?) { gcc pattern14.c -o pattern14 } ; if (\$?) { .\pattern14 }

Enter no:5

```
12345
2345
345
45
5
```

PS C:\Users\sowja\OneDrive\Desktop\Python>

Program 15:

```
C charpattern15.c > main()
14
15 #include<stdio.h>
16 int main()
17 {
18     int no,i,j,a;
19     printf("Enter no:");
20     scanf("%d",&no);
21     for(i=1;i<=no;i++){
22         a=65;
23         for (j=1;j<=i;j++)
24         {
25             printf("%c",a);
26             a++;
27         }
28         printf("\n");
29     }
30     return 0;
31 }
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc charpattern15.c -o charpattern15 } ; if ($?) {
Enter no:5
A
AB
ABC
ABCD
ABCDE
PS C:\Users\sowja\OneDrive\Desktop\Python>
```

Program 16:

```
C xpattern.c C zpattern.c X C pattern13.c C pattern14.c C charpattern15.c C charpattern16.c X
C charpattern16.c > main()
1 #include<stdio.h>
2 int main()
3 {
4     int no,i,j,a=65;
5     printf("Enter no:");
6     scanf("%d",&no);
7     for(i=1;i<=no;i++){
8         for (j=1;j<=i;j++)
9         {
10             printf("%c",a);
11         }
12         a++;
13         printf("\n");
14     }
15     return 0;
16 }
17
18 }
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS [Code](#)

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc charpattern16.c -o charpattern16 } ; if ($?) { .\char
Enter no:5
A
BB
CCC
DDDD
EEEE
PS C:\Users\sowja\OneDrive\Desktop\Python>
```


Program 17:

```
C pattern17.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no,i,j,a=65;
5      printf("Enter no:");
6      scanf("%d",&no);
7      for(i=1;i<=no;i++){
8          for (j=1;j<=i;j++){
9              printf("%c",a);
10             }
11             a++;
12             printf("\n");
13         }
14         a=68;
15         for(i=no-1;i>=1;i--){
16             for (j=1;j<=i;j++){
17                 printf("%c",a);
18             }
19             a--;
20             printf("\n");
21         }
22         return 0;
23     }
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc pattern17.c -o pattern17 } ; if ($?) { .\pattern17 }
Enter no:5
A
BB
CCC
DDDD
EEEE
DDDD
CCC
BB
A
PS C:\Users\sowja\OneDrive\Desktop\Python> 
```

Program 18:

```
C pattern18.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no,i,j;
5      printf("Enter no:");
6      scanf("%d",&no);
7      for(i=no;i>=1;i--){
8          for (j=i;j>=1;j--){
9              printf("%d ",j);
10             }
11             printf("\n");
12         }
13         return 0;
14     }
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc pattern18.c -o pattern18 } ; if ($?) { .\pattern18 }
Enter no:5
5 4 3 2 1
4 3 2 1
3 2 1
2 1
1
PS C:\Users\sowja\OneDrive\Desktop\Python> 
```

Program 19:

```
C pattern19.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no,i,j,a=1;
5      printf("Enter no:");
6      scanf("%d",&no);
7      for(i=no;i>=1;i--){
8          for (j=i;j<=no;j++)
9              {
10                 printf("%d ",j);
11             }
12             printf("\n");
13         }
14     return 0;
15 }
16
17
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc pattern19.c -o pattern19 } ; if ($?) {
Enter no:5
5
4 5
3 4 5
2 3 4 5
1 2 3 4 5
PS C:\Users\sowja\OneDrive\Desktop\Python> 
```

Program 20:

```
C pattern20.c > main()
20
21  #include<stdio.h>
22  int main()
23  {
24      int no,i,j,a=1;
25      printf("Enter no:");
26      scanf("%d",&no);
27      for(i=1;i<=no;i++){
28          for (j=1;j<=i;j++)
29              {
30                 printf(" %d",1-(i+j)%2);
31             }
32             printf("\n");
33         }
34     return 0;
35 }
36
37
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc pattern20.c -o pattern20 } ; if ($?) {
Enter no:5
1
0 1
1 0 1
0 1 0 1
1 0 1 0 1
PS C:\Users\sowja\OneDrive\Desktop\Python> .
```

Program 21:

```
C pattern21.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no,i,j,a=1;
5      printf("Enter no:");
6      scanf("%d",&no);
7      for(i=no;i>=1;i--){
8          for (j=i;j<=no;j++)
9              {
10                 printf("%d ",i);
11             }
12             printf("\n");
13         }
14     return 0;
15 }
16
17
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc pattern21.c -o pa
Enter no:5
5
4 4
3 3 3
2 2 2 2
1 1 1 1 1
PS C:\Users\sowja\OneDrive\Desktop\Python>
```

Program 22:

```
C pattern22.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no,i,j,a=1;
5      printf("Enter no:");
6      scanf("%d",&no);
7      for(i=no;i>=1;i--){
8          for (j=1;j<=i;j++)
9              {
10                 printf("%d ",i);
11             }
12             printf("\n");
13         }
14     return 0;
15 }
16
17
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc pattern22.c -o
Enter no:5
5 5 5 5
4 4 4 4
3 3 3
2 2
1
PS C:\Users\sowja\OneDrive\Desktop\Python>
```

Program 23:

```
C pattern23.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no,i,j,a=1;
5      printf("Enter no:");
6      scanf("%d",&no);
7      for(i=1;i<=no;i++){
8          for (j=i;j<=no;j++)
9          {
10             printf("%d ",i);
11         }
12         printf("\n");
13     }
14     return 0;
15 }
16
17
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc pattern23.c -o pattern23 }
Enter no:5
1 1 1 1 1
2 2 2 2
3 3 3
4 4
5
PS C:\Users\sowja\OneDrive\Desktop\Python>
```

Program 24:

```
C pattern24.c > main()
1  #include<stdio.h>
2  int main()
3  {
4      int no,i,j,a=1;
5      printf("Enter no:");
6      scanf("%d",&no);
7      for(i=no;i>=1;i-=2){
8          for (j=1;j<=i;j++)
9          {
10             printf("%d ",j);
11         }
12         printf("\n");
13     }
14     return 0;
15 }
16
17
```

OUTPUT PROBLEMS DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\sowja\OneDrive\Desktop\Python> cd "c:\Users\sowja\OneDrive\Desktop\Python\" ; if ($?) { gcc pattern24.c -o pattern24 }
Enter no:7
1 2 3 4 5 6 7
1 2 3 4 5
1 2 3
1
PS C:\Users\sowja\OneDrive\Desktop\Python>
```