



Day 9: Nested Loop

1. **Chessboard Pattern:** Write a program to create an 8×8 chessboard pattern using nested loops. Use 'X' and 'O' to represent the squares.
2. Print a 3×3 grid of asterisks (*).
3. Generate a multiplication table (1-10) for numbers 1 through 5.
4. Print all pairs of numbers (i, j) where $1 \leq i, j \leq 3$.

Pattern Designs:

1. Print a right-angled triangle of stars with 5 rows.
2. **Number Patterns:** Write a program to print patterns of numbers, such as the number pyramid or the following sequence: 1, 12, 123, 1234, 12345.
3. Print the below pattern

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

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

4. Print the below pattern

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

5. Patterns questions

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

```
1  
12  
123  
1234  
12345
```

```
1  
12  
123  
1234
```

```
1234  
123  
12  
1
```

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

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

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