

Data Structures and Algorithms Essential Program

DAY-2 | ASSIGNMENT

1.) Write a program to print the following pattern

1
2*2
3*3*3
4*4*4*4

Sol.)

```
#include<stdio.h>
void main(){
int i,j;
for(i=1;i<=4;i++){
    for(j=1;j<=i;j++){
        if(j<i){
            printf("%d*",i);
        }
        else{
            printf("%d",i);
        }
    }
    printf("\n");
}
}
```

2.) Write a program to print the following pattern

1
01
101
0101
10101

Sol.)

```
#include<stdio.h>
void main(){
int i,j;
for(i=1;i<=5;i++){
    for(j=1;j<=i;j++){
        if(j%2==0&& i%2==0){
            printf("1");
        }
        else if(i%2!=0&& j%2!=0){
            printf("1");
        }
        else if(i%2==0&& j%2!=0){
            printf("0");
        }
    }
}
```

```
        }
        else if(i%2!=0&&j%2==0){
            printf("0");
        }
    }
    printf("\n");
}
}
```