- Assignment :

1. Time Complexity :

```
int a = 0;
for (i = 0; i < n; i++) {
    for (j = n; j > i; j--) {
        a = a + j;
    }
}
```

Time Complexity = $O(n^2)$

2. int count = 0;
for (i = 1; i <= n; i = i * 2) { ----> o(log n)
    for (j = 1; j <= i; j++) { ----> o(n)
        count ++;
    }
}

i	j
1	1
2	1, 2
2^2	1, 2, 3, 4
2^3	1, 2, 3, 4, 5, 6, 7, 8
:	
2^k	1, 2, 3, .., 2^k

Complexity : o(n)

3. Linear Search Algorithm

Worst Case — o(n)
Best Case - o(1)
Avg. Case — o(n)