**Assignment 1 | 4th January 2021 Data Structure and Algorithm**

Questions here

1. Find the time complexity for the following scenarios
2. for(i=1;i<=n;i++)

for(j=i;j<=n;j++)

printf("Hi");

Time Complexity:  
 i j

1 1- n

2 1- n

Upto n 1- n

1-n for n times

Therefore, time complexity is O(n^2).

1. for(i=1;i<=n;i\*=3)

for(j=1;i<=n;j++)

printf("Hello");

This is an infinite loop. Therefore, there is no “algorithm time complexity”

If considered

for(i=1;i<=n;i\*=3)

for(j=1;j<=n;j++)

printf("Hello");

Time Complexity: O(nlogn)