ASSIGNMENT - DAY 1

KEVIN . M

1)

```
a = 1
b = 1
while (b <= n)
{
    a = a + 1;
    b = b + 1;
    cout << "Hi;
}
```

⇒ T(n) = ?

From the given sets of code, at first b is 1, so the condition is true, therefore b = 1+1 = 2, which satisfies the condition as true, b = (n-1) + 1, the condition is true.

b = n+1 = false.

∴ The loop ends.

∴ T(n) = O(n)

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2) Write the output for the following recursive code snippet for n = 3.

```
void fun (int n)
{
  if (n>0)
 {
  cout << n;
 fun (n-1);
 cout << n;
 }}
```

Output :

3 2 1