

3. Write C program that demonstrates the usage of these notations by analyzing the time complexity of some example algorithms.

```
def example_algorithm(n):
```

```
    print("Executing constant time complexity algorithm")
```

```
    for i in range(n):
```

```
        print("Executing linear time complexity algorithm")
```

```
    for i in range(n):
```

```
        for j in range(n):
```

```
            print("Executing quadratic time complexity algorithm")
```

```
example_algorithm(5)
```

```
Executing quadratic time complexity algorithm
```

```
output= === Code Execution Successful ===
```

TIME COMPLEXITY: $O(n)$