#### Aniket Tailor 40195068

## Software Engineering Processes

Function 8 : Standard Deviation  $\sigma$ 

Problem 3

# Algorithms for Standard Deviation

1. Pseudo code of Traditional (Iterative) approach

#### Algorithm 1 Traditional Algorithm

14: end procedure

```
1: procedure STANDARDDEVIATION()
        Sum \leftarrow 0
 2:
        Mean \leftarrow 0
 3:
        Var \leftarrow 0
        SD \leftarrow 0
 5:
       Number \leftarrow 0
 6:
       Size \leftarrow Array.count()
 7:
        Sum \leftarrow Sum + Sum
 8:
        for i \leftarrow 0, size do
9:
            Sum + = Array
10:
        end for
11:
        SD = squareRoot(SD/Size)
12:
        Return SD
13:
```

### Algorithm 2 Traditional Algorithm

Pseudo code of Traditional (Iterative) approach

```
1: procedure STANDARDDEVIATION()
        Sum \leftarrow 0
        Mean \leftarrow 0
3:
        Var \leftarrow 0
4:
        SD \leftarrow 0
5:
       Number \leftarrow 0
6:
       Size \leftarrow Array.count()
 7:
        Sum \leftarrow Sum + Sum
8:
       for i \leftarrow 0, size do
9:
10:
           Sum + = Array
        end for
11:
       SD = squareRoot(SD/Size)
12:
        Return SD
13:
14: end procedure
```