



## **SOFTWARE TESTING**

### **Assignment 2**

### **Section 2**

**Date: 5-15-2020**

Sameen Zahra	BSE173137
Mishal khan	BSE173032
Noor Huda	BSE173120

**Submitted To**

**Sir Sameer Obaid**

## Contents

<b>1</b>	<b>INTRODUCTION:</b> .....	1
1.1	Brief Description .....	1
<b>2</b>	<b>Identified Test Cases and Decision Statements:</b> .....	2
2.1	Test case 01.....	2
2.2	Decision statement 01.....	2
2.3	Decision statement 02.....	2
<b>3</b>	<b>Modified Condition Decision Coverage:</b> .....	2
<b>4</b>	<b>Test Oracle:</b> .....	2
<b>5</b>	<b>Path Prediction Expression:</b> .....	3

## **1 INTRODUCTION:**

Taking 3 int values as input calculating the average of values.

### **1.1 Brief Description**

In this project we are calculating the average by giving 3 different evaluation criteria's that are midterm marks, assignment marks and finals marks. In our project we have 1 function taking marks

with 3 parameters. Our 1<sup>st</sup> decision statement { if ((ass > 5 && mid == 10) && finals >= 20)} with 3 conditions and calculating average now 2<sup>nd</sup> decision statement { if ((avg > 0 || mid == 10) || finals >= 20 )} having 3 conditions. It increments 2 in average if all condition are fulfill.

With above description we have generated our test cases with worst BVA and strong robust equivalence class. Mentioned below

## 2 Identified Test Cases and Decision Statements:

### 2.1 Test case 01

**static public double percent(int ass, int mid, int finals) {code on GitHub}**

In this function it will take 3 parameters that is ass, mid, finals which will be taken from test cases (ass, mid, finals) and creating a variable avg=0.

### 2.2 Decision statement 01

**if ((ass > 5 && mid == 10) && finals >= 20) code on GitHub}**

In this decision statement it has 3 condition statements and calculate the avg.

### 2.3 Decision statement 02

**if ((avg > 0 || mid == 10) || finals >= 20 ) { code on GitHub}**

In this decision statement it has 3 condition statements and incrementing the avg by 2.

## 3 Modified Condition Decision Coverage:

Test case	Input 1	Input 2	Input 3	Output
1	6	10	20	14.0
2	6	10	19	11.6
3	6	9	20	13.0
4	6	9	19	13.3
5	4	10	20	13.3
6	4	10	19	11.0
7	4	9	20	13.0
8	4	10	19	10.6

## 4 Test Oracle:

Input:6,10,20

Path:1,2,3,4,5,6,7,8,9,10,11

Aspected output: 14.0

```
1. (static public double percent (int ass, int mid, int finals) {  
2.   Int avg=0  
3.   if ((ass > 5 || mid==10) && finals>=20)  
4.     {  
5.       Avg= (ass+ mid+ finals)/3  
6.     }  
7.   if ((avg>5 || mid==10) && finals>=20)  
8.     {  
9.       Avg=avg+2  
10.    }  
11.    Return avg  
12.  };
```

## 5 Path Prediction Expression:

Input 1: 4,9,20          Path 1:1,2,3,11,12

Input 2:6,10,20          Path 2:1,2,3,4,5,6,7,8,9,10,11,12