Assignment:01

White Box Testing

**Project**:

College Management System

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**1st Statement:**

if (((x1+x2+x3+x4+x5) \* 100)/500) <= 40: 1)

grd = 'G' 2)

elif (((x1+x2+x3+x4+x5) \* 100)/500) <= 50: 3)

grd = 'F' 4)

elif (((x1+x2+x3+x4+x5) \* 100)/500) <= 60: 5)

grd = 'E' 6)

elif (((x1+x2+x3+x4+x5) \* 100)/500) <= 70: 7)

grd = 'D' 8)

elif (((x1+x2+x3+x4+x5) \* 100)/500) <= 80: 9)

grd = 'C' 10)

elif (((x1+x2+x3+x4+x5) \* 100)/500) <= 90: 11)

grd = 'B' 12)

else: 13)

grd = 'A' 14)

grade.set(grd) 15)

Flow Chart:

Diagram

Description automatically generated

Graph Notation:

Diagram

Description automatically generated

Paths:

no. of paths=7

p1:1-2-15

p2:1-3-4-15

p3:1-3-5-6-15

p4:1-3-5-7-8-15

p5:1-3-5-7-9-10-15

p6:1-3-5-7-9-11-12-15

p7:1-3-5-7-9-11-13-14-15

Test cases:

path1) x1=20,x2=20,x3=20,x4=20,x5=20=20

path2) x1=42,x2=42,x3=42,x4=42,x5=42=42

path3) x1=55,x2=55,x3=55,x4=55,x5=55=55

path4) x1=65,x2=65,x3=65,x4=65,x5=65=65

path5) x1=78,x2=78,x3=78,x4=78,x5=78=78

path6) x1=89,x2=85,x3=82,x4=81,x5=88=85

path7) x1=92,x2=93,x3=94,x4=95,x5=96=94

**2nd Statement:**

if(len(self.roll.get()) != 0): 1)

row = Marksheet\_Backend.search(int(self.roll.get())) 2)

print(row) 3)

Marksheet\_Frontend.search\_result\_marksheet(row) 4)

else: 5)

tkinter.messagebox.askokcancel('Attention','Please enter valid Roll No.')6)

return 7)

Diagram

Description automatically generated

**Paths:**

no. of paths=2

path1:1-2-3,4-7

path2:1-5-6-7

**Test cases:**

test cases(input): output

path1)len(self.roll.get())=10

path2)len(self.roll.get())=0

**3rd Statement:**

1) 2)

if (u == str('5MARKS') and p == str(12345678)):

self.menu() 3)

else: 4)

tkinter.messagebox.askyesno("Login","Error : Wrong Password") 5)

self.Username.set("") 6)

self.Password.set("") 7)

return 8)

**Graph notation:**

Diagram

Description automatically generated

**Paths:**

no. of paths=3

path1:1-2-3-8

path2:1-3-4,5-6-7-8

path3:1-4,5-6-7-8

**Test cases:**

path1) u='5MARKS' p='12345678'

path3) u='3MARKS' p='12345678'

paths2) u='5MARKS' p='11111118'

**4th Statement:**

for row in Std\_info\_BackEnd.view(): 1)

self.listbox.insert(END, row, str(' ')) 2)

return self.listbox.insert(END, row, str(' ') 3)

**Graph Notation:**

Diagram

Description automatically generated

**Path:**

no. of paths=2

path1:1-3

path2:1-2-3

**Test cases:**

p1)std\_info\_BackEnd.view()=function doesnt pass

p2)std\_info\_BackEnd.view()=function pass