Software Testing

Assignment: 3

Submitted To: Mr. Samir Obaid

Group Members

Name	Registration No.
Warisha Waseem	BSE173021
Raja Hamza Zahoor	BSE173099
Abdullah Naseer	BSE173048
Muhammad Ameer Hamza	BSE173139

Table of Contents

Prime Minister Ehsaas Program

1. Case Study

1.1 Introduction

Prime Minister Imran Khan has started Ehsaas Program to support needy and poor people in Pakistan. The government started sending 12000 ehsaas program each those who registered themselves in ehsaas program in Pakistan. Ehsaas is about the creation of a 'welfare state' by countering elite capture and leveraging 21st century tools—such as using data and technology to create precision safety nets; promoting financial inclusion and access to digital services; supporting the economic empowerment of women; focusing on the central role of human capital formation for poverty eradication, economic growth and sustainable development; and overcoming financial barriers to accessing health and post-secondary education. The program is for the extreme poor, orphans, widows, the homeless, the disabled, those who risk medical impoverishment, for the jobless, for poor farmers, for laborers, for the sick and undernourished; for students from low-income backgrounds and for poor women and elderly citizens. This plan is also about lifting lagging areas where poverty is higher.

1.2 Description

Individuals can register themselves using Ehsaas Program Portal. The portal allows the individual to check their eligibility. The cash which will be granted to individuals depends on their age and income. Different amounts are granted depending upon Age and Income factor. However the grant also depends upon age limit. Individual whose age is minimum 55 years old and maximum 85 years old are eligible for category one. Individuals whose age is minimum 40 years old and maximum 54 years old with income less or 10,000 per month are eligible in category 2. Individuals whose age is less or more than defined limit are not eligible for grant. System allows user to check balance. If balance is less than 4000 his/her account will be active for 50 days and if amount is greater than 4000 account will be active for 30 days. If account has no balance it is not alive. User must have to withdraw money within defined time limit to keep the system aware that he/she needs money. Otherwise money will be credited back to government on no-utilization money factor and account will be closed. Individual can withdraw money from system according to their category. The maximum limit for

withdrawal is 3000 and minimum limit is 500. Individual who enters more or less than limit will be shown an error message.

2. Causes and Effects

2.1 Function 1

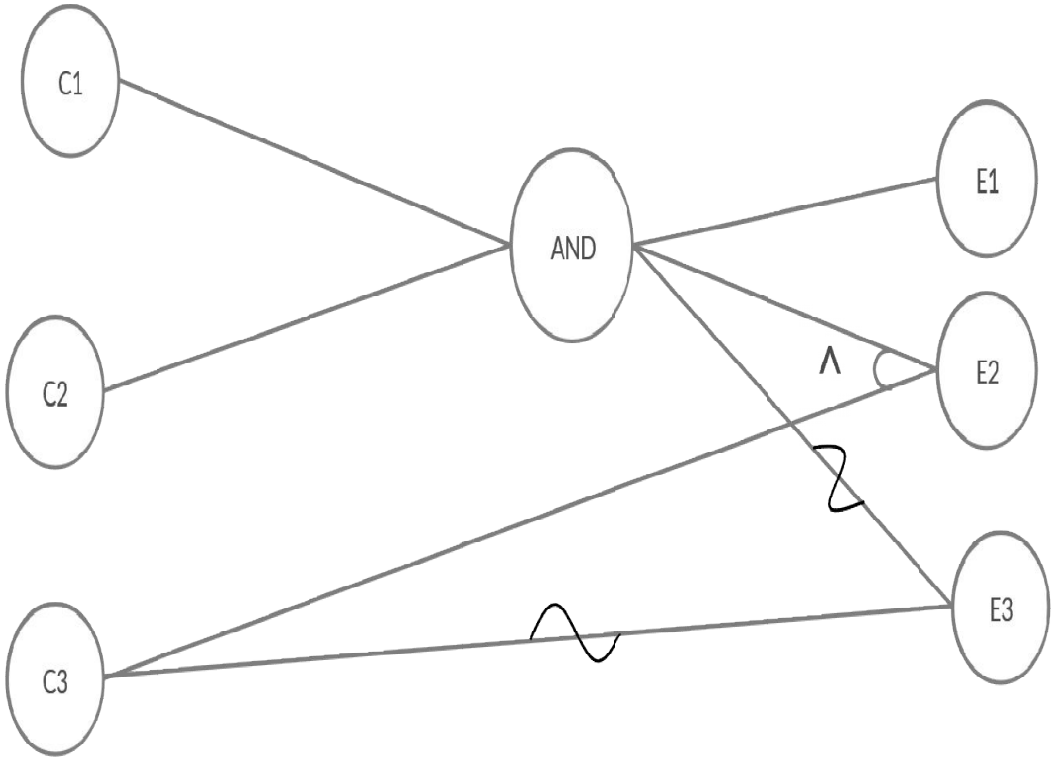
int checkYourEligibility (int age_cat1, int age_cat2, int income)

This function has three parameters of age_cat1, age_cat2 and income of a person on which this function calculates that whether a particular person is eligible of this program or not.

2.1.1 Function 1 Causes and Effects

Causes	Effects
C1: age_cat1>=55 && age_cat1 <=85	**E1:** Eligible in category 1
C2: (age_cat2>=40 && age_cat2<=54)	**E2:** Eligible in category 2
C3: income <=10000	**E3:** Not Eligible

2.1.2 Function 1 Causes and Effect Graph



2.1.3 Function 1 Decision Table

Action	T1	T2	T3	T4	T5	T6	T7	T8
C1	0	0	0	0	1	1	1	1
C2	0	0	1	1	0	0	1	1
C3	0	1	0	1	0	1	0	1
E1	0	0	0	0	1	1	1	1
E2	0	0	0	1	0	0	0	1
E3	1	1	1	0	0	1	1	0

2.1.4 Function 1 Test Cases

Test Case No.	Input Values			Output
	age_cat1	Age_cat2	Income	
T1	54	-	-	Not Eligible
T2	-	42	11000	Not Eligible
T3	-	47	12000	Not Eligible
T4	-	50	9000	Eligible in category 2
T5	72	-	-	Eligible in category 1
T6	73	42	13000	Eligible in category 1 Not Eligible
T7	70	44	12500	Eligible in category 1 Not Eligible
T8	71	45	12500	Eligible in category 1 Eligible in category 2

2.2 Function 2

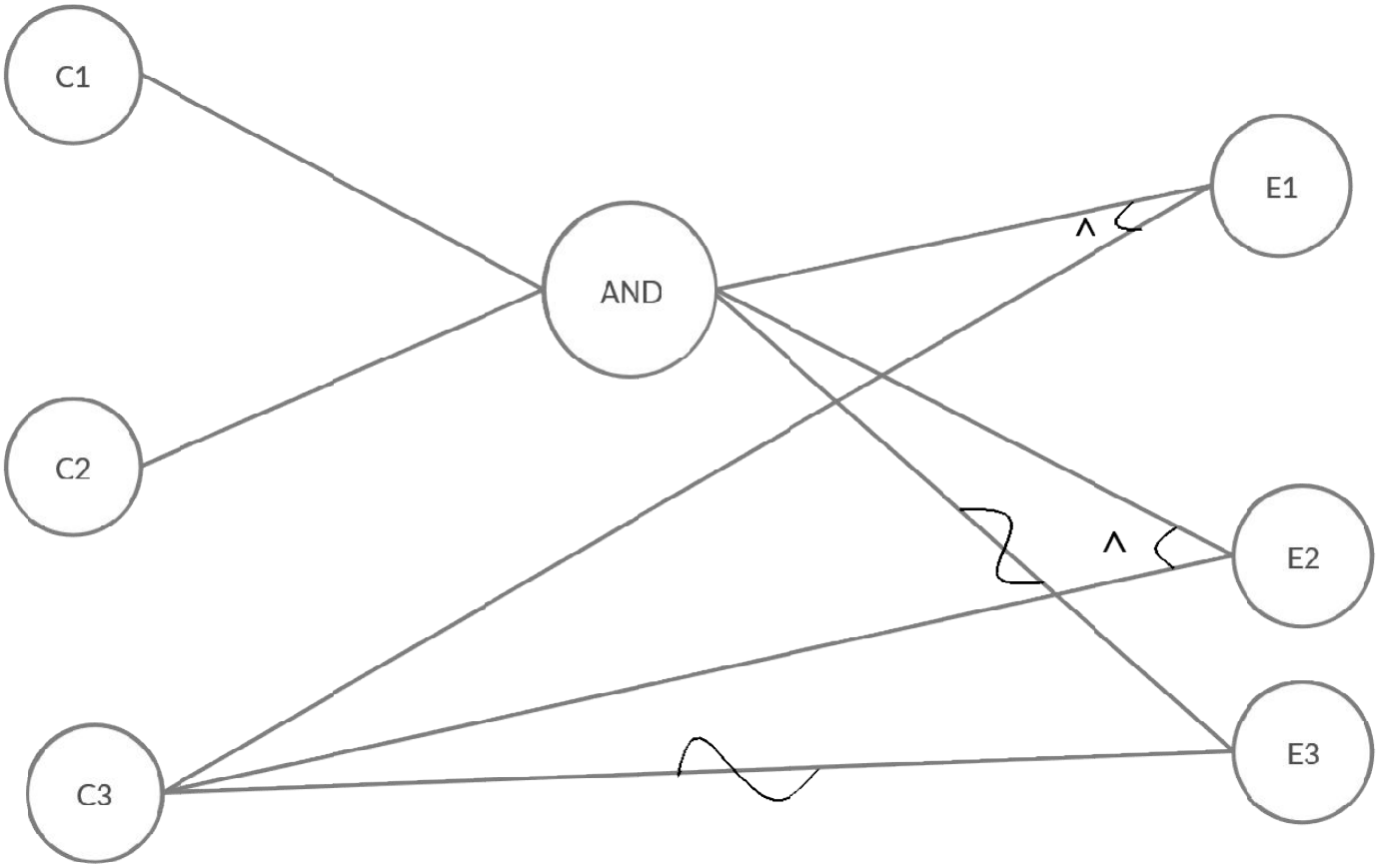
int accountAliveFor(float balance)

This function has parameters of balance. On basis of this parameter it shows that how for how many days a specific account is active, after which the account is suspended by authorities.

2.2.1 Function 2 Causes and Effects

Causes	Effects
C1: balance<4000	**E1:** Active for 50 days
C2: balance>4000	**E2:** Active for 30 days
C3: balance<=1	**E3:** Account suspended

2.2.2 Function 2 Cause and Effect Graph



2.2.3 Function 2 Decision Table

Action	T1	T2	T3	T4	T5	T6	T7	T8
C1	0	0	0	0	1	1	1	1
C2	0	0	1	1	0	0	1	1
C3	0	1	0	1	0	1	0	1
E1	0	0	0	0	0	1	0	1
E2	0	0	0	1	0	0	0	1
E3	0	1	1	0	1	0	1	0

2.2.4 Function 2 Test Cases

Test Case No.	Input Values	Output
	balance	
T1	-1	Invalid
T2	0	Account suspended
T3	0.5	Account suspended
T4	0.1	Account suspended
T5	0.001	Account suspended
T6	3900	Account alive for 50 days
T7	0.4	Account suspended
T8	4100	Account alive for 30 days

2.3 Function 3

```
int withdrawLimit(float amount)
```

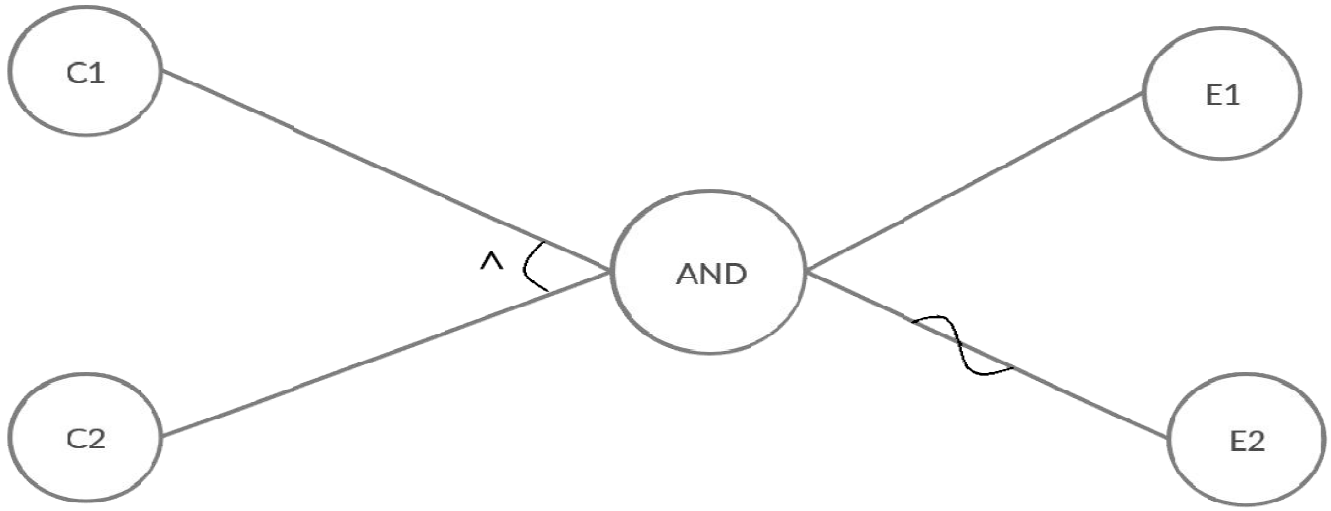
This function has parameter of amount. On bases of these parameters it shows the amount of time required between two transitions for a particular account. The account balance is 12000.

So, amount should be less than 12000.

2.3.1 Function 3 Causes and Effects

Causes	Effects
C1: (amount>=500 && amount<=3000)	**E1:** Click OK to proceed
C2: amount < balance	**E2:** Invalid Amount

2.3.2 Function 3 Cause and Effect Graph



2.3.3 Function 3 Decision Table

Action	T1	T2	T3	T4
C1	0	0	1	1
C2	0	1	0	1
E1	0	0	0	1
E2	1	1	1	0

2.3.4 Function 3 Test Cases

Test Case No.	Input Values	Output
	amount	
T1	400	Invalid amount
T2	450	Invalid amount
T3	12500	Invalid amount
T4	3100	Click OK to proceed.