

Module 13 Assignment

Software Testing

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Prompt

The WonderCard, Ultd. credit card operations division has revised the criteria for granting credit limit increases to customers. The new business rules are described below. The software has not yet been developed. Determine the number and types of test cases you would use to test this new capability, based on the following functional requirements. Justify your results.

1. The new program will read as input three data items for a customer and determine a new credit limit. The input items are the number of years as a customer, average monthly credit usage, and a credit score (P = poor, G = good, E = excellent).
2. If a customer has a credit score of P no credit increase will be granted under any circumstances. Also, no credit increase will be granted to a customer who has been with WonderCard for five years or less and has a credit usage of \$0 - \$1,000 and a credit score of G.
3. A five percent increase will be given to customers who have been with WonderCard for more than five years if they have a G credit score and usage of \$0 - \$1,000; if they have been a customer for more than two years but not more than five years and have a credit score of G and usage greater than \$1,000, or have been a customer for up to two years and have a credit score of E and usage not exceeding \$1,000, or a credit score of G or E and usage greater than \$1,000.
4. A ten percent increase will be given to customers who have been with WonderCard for more than five years and have a credit score of G and usage in excess of \$1,000, or a credit score of E and usage not exceeding \$1,000; or if they have been a customer for more than two years but not more than 5 years and have a credit score of E and usage in excess of \$1,000.
5. A fifteen percent increase will be granted to only to those who have been customers for more than five years and have a credit score of E and a usage in excess of \$1,000.

Test Plan

Point	Years As Customer	Avg. Monthly Use	Credit Score	Expected Result
2	0	0	P	0 % Increase
	15	0	P	0 % Increase
	0	2000	P	0 % Increase
	15	2000	P	0 % Increase
	2	500	G	0 % Increase
	5	1000	G	0 % Increase
3	7	500	G	5% Increase
	7	1000	G	5 % Increase
	2	1500	G	5% Increase
	5	1500	G	5% Increase
	1	500	E	5 % Increase
	1	1500	G	5 % Increase
	1	1500	E	5% Increase
4	6	1500	G	10% Increase
	6	500	E	10% Increase
	2	1500	E	10% Increase
	5	1500	E	10% Increase
5	6	1500	E	15% Increase
	40	1500	E	15% Increase

Point	Years As Customer	Avg. Monthly Use	Credit Score	Expected Result
Edge Cases	String	1000	E	"Invalid Customer Years"
	5	String	E	"Invalid Monthly Use"
	5	1000	M	"Invalid Credit Score"
	-5	1000	E	"Years as Customer must be +"
	5	-1000	E	"Monthly Use must be +"
		1000	E	"Missing Years as Customer"
	5		E	"Missing Monthly Use"
	5	1000		"Missing Credit Score"
	1,000,000	1000	E	"Customer Years must be < 150"

This test plan aims to target all possible cases that the WonderCard system may see. The table clearly shows the user inputs and the expected output from the algorithm. The table is broken out into sections which aim to assist the reader in identifying which tests are fulfilling which part of the requirements, with a section for some edge cases that may come with user input errors or bugs in the system. This suite of tests utilizes 27 individual tests to ensure that we have full decision coverage of all possibilities in the decision tree.