Specification Based Testing - Part 1

Cause Effect Analysis

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Objective

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Apply cause-effect testing technique

Cause-Effect Analysis

- Necessary for testing functions where combinations of inputs must be tested together
- Utilizes decision tables and decision trees

Example

Consider a function which has two input variables, Customer and Order, and one output variable, Discount. Customer may be of type A, B or C and Order has a range of 1 to 1000. The function computes Discount which is based on Customer type and Order. For this example, assume the following rules apply.

1. Customers of type A receive a 0% discount for less than 10 items, 5% discount for 10 to 99 items, 10% discount for 100 or more items.
2. Customers of type B receive a 5% discount for less than 10 items, 15% discount for 10 to 99 items, 25% discount for 100 or more items.
3. Customers of type C receive a 0% discount for less than 10 items, 20% discount for 10 to 99 items, 25% discount for 100 or more items.

Test Matrix

Partitions	1	2	3	4	5	6	7	8	9
A									
B									
C									
Order < 10									
10 < order <100									
100 < order < 1000									
Results									
Discount 0%									
Discount 5%									
Discount 10%									
Discount 15%									
Discount 20%									
Discount 25%									

Cause Effect Analysis / Decision Tree

Summary