**DECISION TABLE**

Let's consider a scenario where a software application needs to determine the eligibility of a user for a discount based on two conditions: Membership Type and Purchase Amount.

| **Conditions** | **Membership Type: Regular** | **Membership Type: Premium** |
| --- | --- | --- |
| Purchase Amount < $50 | No Discount | 5% Discount |
| Purchase Amount >= $50 | 2% Discount | 10% Discount |

In this example, we have two conditions: Membership Type (Regular or Premium) and Purchase Amount (< $50 or >= $50). The potential outcomes are different discount rates. The decision table visually represents all possible combinations of conditions and the corresponding actions or outcomes.

Let's break down the decision table:

1. **Conditions:**
   * Membership Type: Regular or Premium
   * Purchase Amount: < $50 or >= $50
2. **Actions/Outcomes:**
   * No Discount
   * 2% Discount
   * 5% Discount
   * 10% Discount
3. **Decision Table:**

| **Membership Type** | **Purchase Amount** | **Action/Outcome** |
| --- | --- | --- |
| Regular | < $50 | No Discount |
| Regular | >= $50 | 2% Discount |
| Premium | < $50 | 5% Discount |
| Premium | >= $50 | 10% Discount |

Based on the decision table example, here are some test scenarios:

1. **Regular Member with Purchase Amount < $50:**
   * Membership Type: Regular
   * Purchase Amount: $40
   * Expected Outcome: No Discount
2. **Regular Member with Purchase Amount >= $50:**
   * Membership Type: Regular
   * Purchase Amount: $60
   * Expected Outcome: 2% Discount
3. **Premium Member with Purchase Amount < $50:**
   * Membership Type: Premium
   * Purchase Amount: $30
   * Expected Outcome: 5% Discount
4. **Premium Member with Purchase Amount >= $50:**
   * Membership Type: Premium
   * Purchase Amount: $70
   * Expected Outcome: 10% Discount
5. **Regular Member with Edge Case Purchase Amount (equal to $50):**
   * Membership Type: Regular
   * Purchase Amount: $50
   * Expected Outcome: 2% Discount
6. **Premium Member with Edge Case Purchase Amount (equal to $50):**
   * Membership Type: Premium
   * Purchase Amount: $50
   * Expected Outcome: 10% Discount
7. **Regular Member with Zero Purchase Amount:**
   * Membership Type: Regular
   * Purchase Amount: $0
   * Expected Outcome: No Discount
8. **Premium Member with Zero Purchase Amount:**
   * Membership Type: Premium
   * Purchase Amount: $0
   * Expected Outcome: No Discount
9. **Regular Member with Large Purchase Amount (e.g., $500):**
   * Membership Type: Regular
   * Purchase Amount: $500
   * Expected Outcome: 2% Discount
10. **Premium Member with Large Purchase Amount (e.g., $1000):**
    * Membership Type: Premium
    * Purchase Amount: $1000
    * Expected Outcome: 10% Discount