**Boundary Value Analysis Testing Technique**

**Given Case of Myntra:**

Myntra is an online retail platform, where to place an order, you have to enter a pin code (6 digits) and login via a 10-digit phone number.

However, these 2 fields are not related to each other for example entering invalid pin code does not affect login status.

Similarly weather a product is available for delivery to a particular pin code is not affected by phone number or login.

For Phone Number:

1. Calculate the number of test cases for phone number –

Normal BVA, Robust BVA, Worst case BVA and Robust worst case BVA required to carry out boundary-value analysis for phone number (should be 10 digits only) for login page.

* (n=1)
* Valid phone numbers range – 1000000000<=Phone number <=9999999999

*Some Phone Numbers like 9999999999 are reserved numbers and fail for authentication.*

* **For BVA:**

Total number of test cases: 4 n + 1 = 4 \* 1 + 1 = 5

* **For Robust BVA:**

Total number of test cases: 6 n + 1 = 6 \* 1 + 1 = 7

* **For Worst Case BVA:**

Total number of test cases: 5^n= 5

* **For Robust Worst Case BVA:**

Total number of test cases: 7^n= 7

b) **Test cases for Robust worst case BVA** for the login page.

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| --- | --- | --- | --- |
| Test Case # | Boundary Point | Phone number | Expected Output |
| 1 | Min -1 | 999999999 | Invalid (too short) |
| 2 | Min | 1000000000 | Valid |
| 3 | Min +1 | 1000000001 | Valid |
| 4 | Nominal | 5555555555 | Valid |
| 5 | Max-1 | 9999999998 | Valid |
| 6 | Max | 9999999999 | Valid |
| 7 | Max+1 | 10000000000 | Invalid (Only 10 digits allowed) |
| 8 | Alphabetic Input | aaaaaaaaaa | Invalid (Only digits allowed) |
| 9 | 10 Digits valid number | 7088822002 | Valid |

For Pin code:

1. Calculate the number of test cases for pin code – Normal BVA, Robust BVA, Worst case BVA and Robust worst case BVA required to carry out boundary-value analysis for pin code (should be 6 digits only) (n=1)

Valid pin codes– 100000<=Pin Code<=999999

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**For BVA:**

Total number of test cases: 4 n + 1 = 4 \* 1 + 1 = 5

**For Robust BVA :**

Total number of test cases: 6 n + 1 = 6 \* 1 + 1 = 7

**For Worst Case BVA :**

Total number of test cases: 5^n= 5

**For Robust Worst Case BVA :**

Total number of test cases: 7^n= 7

b) **Test cases for Robust worst case BVA** for the login page.

|  |  |  |  |
| --- | --- | --- | --- |
| Test Case # | Boundary Point | Pin Code | Expected Output |
| 1 | Min -1 | 99999 | Invalid (too short) |
| 2 | Min | 100000 | Valid |
| 3 | Min +1 | 100001 | Valid |
| 4 | Nominal | 500000 | Valid |
| 5 | Max-1 | 999998 | Valid |
| 6 | Max | 999999 | Valid |
| 7 | Max+1 | 1000000 | Invalid (too long) |
| 8 | 2 digits | 11 | Invalid (too short) |
| 9 | 4 Digits | 9999 | Invalid (too short) |