



Color combination fest

An application often requires input from the user. This input can range from free text, to an integer or decimal number, a positive or negative number, a time and date or a limited set of values. This list of possibilities is far from complete. A tester will check whether the specified types of input can be used and whether the others can not. A tester will also check whether all specified values can be chosen and whether combinations of these are possible. In this activity participants will apply test design techniques to define logical and physical test cases using M&M's. They will gain insight in the vast number of test cases possible and the priorities a tester must set.

Activity in one sentence

Apply different test design techniques to define logical and physical test cases with M&M's and prioritize these by applying them to a real-life example.

Goal

To experience the application of different test design techniques to define test cases and prioritize these.

Target group

Team members who have limited experience defining and executing test cases and would like to improve on this.

Necessities and prerequisites

- 2 to 6 participants, preferably team members
- A room with a projector, blackboard or equivalent, enough tables to accommodate participants
- M&M's
- Camera to record the session, if desired

Steps

1. Instruct the participants to sit or stand around one table
2. Place a bowl with M&M's in the center of the table
3. If needed, explain the analogy between the domain values of three sets and the colors of the M&M's by laying out the possible domain values/colors of M&M's per set. The three sets contain two, three and four different domain values, where each domain value is represented by a color
4. Pose the first question: 'How can we check whether every domain value can be chosen?'



5. Instruct the participants to discuss. Encourage them to question each other's reasoning
6. Instruct the participants to lay their agreed test cases on the table using the colored of M&M's
7. Repeat step 4 to 6 for the second question 'How can we check whether all combinations of domain values can be chosen?'
8. Apply the test cases to a real-life example. Which priorities would they set in testing based on the application the real life-example is a part of?

Outcomes

Participants applied different test design techniques to construct logical and physical test cases. They set priorities by applying the test cases to a real-life example.

Notes

- As an instructor, you are advised to guide the discussion by only offering additional explanations if needed and asking questions. You are not advised to provide solutions all too soon as the discussion is an important aspect of this activity

Variations

- Instead of M&M's use pencils with different colors, Lego bricks or other colorful materials
- Expand this activity to include ranges of possible values (equivalence partitioning and boundary value analysis)