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Boundary Testing

According to Wikipedia's definition, boundary Testing, also called Boundary Value Analysis, is created by using the extreme values of the input domain, such as the maximum and minimum values, lower and upper values, starting and ending values. All of these focus on the corner cases. For example, if there is a grading software which performs from 0 to 100 points, the inputs of this software must be from 0 to 100. Testers can generate the test cases with negative points and more than 100 points to test.

Boundary Testing is also a testing technique to find the bugs in the boundaries of inputs rather than in the middle of data. This testing method should be an efficient way. The previous grading software can also be illustrated. Testers do not need to use 25, 50, 75 points to test. Instead of these intermediate inputs, it is more representative and practical to use -1, 0, 100, and 101 to verify this grading software.

There are three advantages of performing the Boundary Testing. Firstly, Boundary Testing can detect gaps between the product and the requirement document. Sometimes the requirement document does not explicitly specify the constraints and can be improved by Boundary Testing. Secondly, for the conditional statements of software, Boundary Testing can provide coverage and make sure that all the scenarios of this software are considered. Moreover, Boundary Testing can avoid utilizing wrong comparison operators. These kinds of mistakes are easy to detect by boundary testing. All of these advantages mentioned above will result in improving the quality of the product.