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| Document name | : | HR.Skills.A2W5ST |
| Document description | : | This document contains the supporting topic: “Testing: Input/Output”. |
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Supporting topic description:

Implementing a correct program is not easy. Programs always tend to have bugs. Input/Output Test is one of the common techniques to test the correctness of a program. The main idea is to design certain inputs, run the program with the inputs and check if the produced output satisfies expected output.

1. Make a brief research about input/output testing with some examples. Make a summary of the techniques with the examples.
2. Choose one of the problems you have solved for this week.
   1. Certainly there are some normal inputs for which your program is supposed to provide a correct output. Think about three different expected inputs and see if the output is correct.
   2. There are some inputs that are not expected. For example, if your program is supposed to receive an integer between 0 and 10, then a negative integer is not expected. Choose three different unexpected inputs and test your program. If your program crashes, then fix your program such that provides a proper message instead of crashing.
   3. Usually, users unexpectedly make mistakes when trying to give an input. For example, if they try to enter a digit between 0 and 10, mistakenly they press 6; . Check if your program is resilient for such errors.

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| Sources used for making this document: |  |

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| 1. | University of Twente, Reseach information | Document: Tre96-SCT.pdf |
| 2. |  |  |
| 3. |  |  |

1. Make a brief research about input/output testing with some examples. Make a summary of the techniques with the examples.

Testing is an operational way of testing the correctness of a system implementation by means of experimenting with the system.  
Test are run in a test environment and observations are made during the execution of test.  
  
Testing and verification are complementary techniques used for analyzing and checking the correctness of the system implementation.

For testing input and output you can perform the following tests:  
a. Conformance testing

b. Performance testing

c. Robustness testing

d. Reliability testing

Here are