## Regression Testing

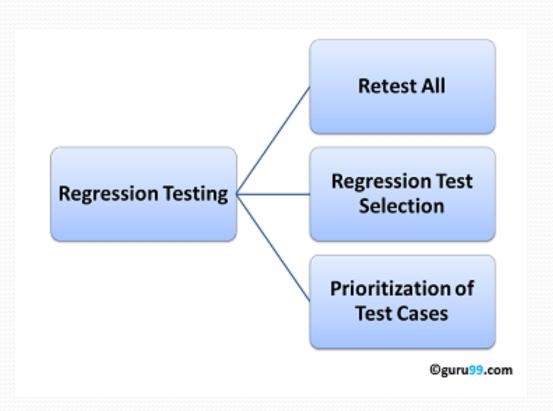


- Regression testing is a type of software testing that verifies that software that was previously developed and tested still performs correctly after it was changed or interfaced with other software. Changes may include software enhancements, patches, configuration changes, etc.
- The purpose of regression testing is to confirm that a recent program or code change has not adversely affected existing features.

- Regression Testing is required when there is a
- → Change in requirements and code is modified according to the requirement
- → New feature is added to the software
- → Defect fixing
- → Performance issue fix

## Regression Testing Techniques

Software maintenance is an activity which includes enhancements, error corrections, optimization and deletion of existing features. These modifications may cause the system to work incorrectly. Therefore, Regression Testing becomes necessary. Regression Testing can be carried out using following techniques:



#### Retest All

- This is one of the methods for regression testing in which all the tests in the existing test bucket or suite should be re-executed. This is very expensive as it requires huge time and resources.
- Regression Test Selection
- Instead of re-executing the entire test suite, it is better to select part of test suite to be run
- Test cases selected can be categorized as 1) Reusable Test Cases 2)
   Obsolete Test Cases.
- Re-usable Test cases can be used in succeeding regression cycles.
- Obsolete Test Cases can't be used in succeeding cycles.
- Prioritization of Test Cases
- Prioritize the test cases depending on business impact, critical
   & frequently used functionalities . Selection of test cases based on priority will greatly reduce the regression test suite.

- Goal of regression testing
- → To assure that changes to the system have not introduced new errors that cause the system to regress.

### • Example:

An interesting act between a doctor and a patient who
was initially suffering from stomach ache and later on
stared suffering from mouth ache due to overdose of
tablets that were give to cure stomach ache.

- Patient: Doctor ,I am suffering from indigestion.
  Please check.
- Doctor: ok..Take these ¾ types of tablets and come for recheck up after 3 days.
- Doctor: Congratulation! The stomach ulcer that was bothering you and preventing digestion is now completely cured.
- Patient: That is fine, doctor but now ,I have got such a bad mouth ulcer because of taking so many types and number of Tablets. Now ,I am not able to eat anything and so, there is nothing to digest.

- Activities of Regression Testing:
- → Identify the basic function of the product.
- → Design test cases for these basic function.
- → Every time the changes is done, ensure that the product runs successfully with no side effects.
- Types of Regression Testing:
- Final Regression Test.
- 2) Regression Tests.

- Advantages of Regression Testing:
- 1)Detecting Bugs
- 2) Detects undesirable side
- 3)New way

# **Agile Testing**

- Advantages of Agile Testing:
- 1)Continuous Process
- 2)Involve
- 3)Clean of Bugs
- 4)Documentation
- 5)Implemented and Tested
- Disadvantages of Agile Testing:
- 1)As bug fixes and releases happen more often, more number of regression bugs may be introduced.
- 2)Test team may not work on developing a consistent and powerful test system that can be main