**Matrix**

1. **What Is Requirement Traceability Matrix?**

Answer. Requirement Traceability Matrix (RTM) is a document which records the mapping between the high-level requirements and the test cases in the form of a table. That’s how it ensures that the Test Plan covers all the requirements and links to their latest version.

1. **What Is GAP Analysis?**

Answer. Gap analysis reveals any deviation between the features available for testing and how the customer perceives them to be.

Traceability matrix is a testing tool which testers can use to track down the gaps.

1. **What are two types of matrix?**

**Ans. A. Primary matrix:-**Primary matrix is also called as the process matrix.

**B.** Product matrix:- Product

1. **What is forward Traceability and Backward Traceability?**

Ans: Forward Traceability is an ability to ensure that each requirement has an associated test case. This ensures that there is no requirement that is left untested.

1. **What is testability of requirement?**

Ans: Testability is a characteristic of good requirement. It indicates that it should be possible to verify a requirement after it has been implemented by the system.

1. **How can you test a requirement?**

Ans: Requirements validation is done by a formal technical review. Requirements are validated against a checklist of questions. Generally, this checklist covers characteristics of good requirement.

1. **What is forward Traceability and Backward Traceability?**

Ans: Forward Traceability is an ability to ensure that each requirement has an associated test case. This ensures that there is no requirement that is left untested.

Backward traceability is an ability to ensure that each test case maps to at least one requirement. This ensures that there are no redundant test cases created.

1. **What do you mean by software build?**

Ans: Software build is a process of converting source code and related artefacts (configuration files etc) into a combined software unit which can be deployed / installed on a computer. The build process consists of tasks like compilation, linking etc. Where source code is converted into executable code.

1. **What is a software release?**

Ans: A software release is a process of creating an executable for an application after sufficient testing which may include software code along with documentation or any other support material. This release can be distributed using compact discs, in downloadable form or any similar mechanism.

When software starts maturing from development to go live, incremental releases are done from one environment to another. For example, from integration to staging or from staging to production.

1. **What is a release note?**

Ans: Release note is a document distributed with every release of the software; it is a summary of recent changes, bug fixes and enhancements. Most importantly, it documents any “known bugs” (deferred defects) in the particular software release. Important sections of release notes are:

. Scope of release – requirement briefs delivered as part of this release.

. Details on software being released – artefacts like code, executable, database etc.

. Additional documents – test procedures, test logs, functional specifications etc.

. Known issues – deferred defects for this release.

1. **What is Requirements Traceability Matrix RTM?**

Ans: Requirements are realized through various phases of SDLC. For each requirement there are corresponding design artefacts (Class diagram, ER diagram), programs, classes, testing artefacts (like test cases). This is typically done via a Requirements Traceability Matrix.

. This is very useful to estimate the impacts of a change in the requirements under consideration.

. Also serves as verification from the point of view that all the requirements are finally delivered in the end work product.

. Most importantly, it can serve as a basis for defining scope of regression testing. Using RTM, one will be able to know all the relevant artefacts which need to be considered for regression when change occurs.

A typical RTM is shown below.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Requirements | | Design | Construction | | Testing |
| Business Requirements  No | Use  Case  ID | Module/  Sub Module  Name | Component/  Class Name | Screen  Name/ID | Test Case  ID |

1. What are the types of RTM?

Ans. There are three types of RTM.

1. Forward traceability matrix
2. Backward traceability matrix
3. Bi-directional traceability matrix