

Software Testing Business Intelligence (STBI)

Lesson 1: Introduction to STBI

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Lesson Objectives

➤ **To understand the following topics:**

- Business requirements
- BI Project versus BI Program
- How is BI testing different from traditional code based testing?



1.1: Business requirements

Introduction to STBI

- BI solutions development uses a distinctly different lifecycle to conventional software development
- It is iterative in nature where a single project develops subset of a more extensive BI environment.
- Thus each deliverable must go beyond meeting just the stated requirements and provide a solid foundation upon which future solutions or iterations are built.
- Beyond the differences imposed by the different lifecycle, there are several other differences that add to the complexity

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1.1: Business requirements

Introduction to STBI (Cont...)

- Analysis for software development produces a relatively stable set of requirements that serve as the basis of system design.
- BI requirements are less clear and change more rapidly.
- This circumstance makes testing of requirements difficult and creates downstream challenges when testing designs, software components, and other deliverables.

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1.2: BI Project versus BI program

What is BI project

- A typical software development project is self-contained.
- Dependencies are few and testing is finished when the project is completed.
- The BI program is an ongoing program without a finite end.
- Development is iterative and the system will evolve over time.
- With the continuous nature of BI development and operation there is a demand for testing.

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1.3: Why BI ST

Why is BI testing required?

- DW/BI pose a significant threat to organizations or applications with huge volume of data. For Eg: Banks/Financial Institutes, Insurance, Telecom etc.
- In such Institutes, the Information accuracy, consistency and reliability, information validation, data loss, reporting inefficiencies and data security are some of the important challenges that needs to be tested.
- To address these issues, the primary focus of DW/BI testing is to ensure competent and perfect database structures, ETL processes, front-end access and BI reports generations processes.

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1.4: How is BI testing different from traditional code based testing?

Objective of BI testing

- Software testing is predominantly testing of program code
- Verifying that it works correctly and does not fail.
- BI testing is directed at data, information and reports.
- Code failure is more readily defined and isolated than failure of data and information.
- Testing Strategy plays critical role in ensuring a common best practice testing process for the implementation of the BI Solutions.

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1.4: How is BI testing different from traditional code based testing?

Objective of BI testing (Cont..)

- The strategy brings in a broad understanding of Business Intelligence architecture
- It highlights the testing challenges and the value addition to the SDLC process
- It identifies generic validation approaches and the best practices for testing BI Applications.

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Summary

➤ **In this lesson, you have learnt:**

- Business intelligence software testing uses a distinctly different lifecycle to conventional software development
- It identifies generic validation approaches and the best practices for testing BI Applications.



Review Questions

➤ **Question 1: Data Warehouse Development Life Cycle has ____ phases.**

- Option 1: 5
- Option 2: 6
- Option 3: 7



➤ **Question 2: Analysis phase identifies the data sources**

- Option: True / False

➤ **Question 3: A data warehouse is really a completed project.**

- Option: True / False