

Risk Based Testing Course Outline

General Description

Risk is the possibility of a negative or undesirable outcome or event. Testing is concerned with two main types of risks:

- Product or quality risks, which are problems that can potentially affect the quality of the product itself.
- Project or planning risks, which are problems that can potentially affect overall project success.

Not all risks are equal and there are a number of ways to assess the level of risk.

So, how can we identify risks, assess their level, implement appropriate tests and other controls, and report test results based on risk? This course will show attendees how to do so. We'll look at quality risks and quality risk categories. We'll talk about how to identify risk items and assess their level of risk. We'll look at how risk based testing adapts to various software development lifecycle models, how project risks can affect testing, and metrics we can use during risk based testing. The course illustrates important concepts with examples, a case study, and realistic, hands-on exercises.

Learning Objectives

Through presentation, discussion, and hands-on exercises, attendees will learn to:

- Understand risks generally, and quality risks and project risks in particular.
- Identify, analyze, assess, prioritize, and document quality risks.
- Identify and manage project risks that affect testing.
- Report test results in terms of residual risks.
- Measure how effectively testing addresses risks.
- Understand alternative ways of documenting and assessing quality risks.

Course Materials

This course includes the following materials:

<i>Name</i>	<i>Description</i>
Course Outline	A general description of the course along with learning objectives, course materials and an outline of the course topics.
Noteset	A set of about 150 PowerPoint slides covering the topics to be addressed.
Omninet Marketing Requirements	Specification for the realistic example project used in two course exercises.
Quality Risk Analysis Template	A thorough Excel template for capturing quality risk analysis information, including supplemental worksheets with categories of risk categories, the ISO 9126 standard, by-products worksheets, and analytical tools for detecting problems with risk assessments (provided electronically).
Sample Exam Questions	A complete set of questions for key course concepts.
Exercise Solutions	Detailed solutions for all exercises in the course.
<i>Quality Risk Analysis</i>	An article originally published in <u>Software Quality Professional</u> , which describes the quality risk analysis process and options for carrying it out.
<i>A Case Study in Risk Based Testing</i>	An article originally published in <u>Better Software</u> , which describes a case study of introducing risk based testing for a client.

The printed course materials are provided in a binder in a way which makes it convenient for course attendees to remove portions as needed for reference.

Session Plan

Introduction and objectives

What is risk based testing?

Identifying quality risks

Exercise: Identifying quality risks

Capturing and assessing quality risks

Risk based testing pilot: A case study

Options for increasing formalism and precision

Risk based testing, the software development lifecycle, and the test process

Exercise: Managing project risks

Exercise: Analyzing quality risks

Recommended Readings

Attendees should read the articles, *Quality Risk Analysis* and *A Case Study in Risk Based Testing*, before the course.