



# Testing - Foundations

Mindmap Summaries on [TestingEducation.Org](https://TestingEducation.Org) – Testing Foundations  
Course by: Cem Kaner, James Bach & Rebecca L. Fiedler



Rahul Parwal

Foreword by James Marcus Bach

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# Acknowledgement

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We would like to explicitly acknowledge the authors and copyright holders, i.e. Dr. Cem Kaner and James Marcus Bach for the remarkable work that they have done and made publicly available for study, reference, and self-learning.

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# Mind Map Summary E-Book on Testing - Foundations

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I came across TestingEducation.org Course after watching a keynote talk by Ajay Balamurugadas at CAST 2015. If you are also interested in the future of testing and the learning opportunities for testers, then I would recommend this talk to you too. It's available at [bit.ly/ajkeynote](http://bit.ly/ajkeynote).

I started the Testing Foundations Course using the self-paced video(s) available at <http://www.testingeducation.org/>. Having spent almost 4 years in the software industry, I was confident that I would be able to cover this 2.5 hours (157 mins) course on testing basics (foundations) within 2-3 days. However, when I started with this course, I realized that each chapter is filled with so much and would require a lot of notetaking, processing, & challenging the existing understanding of things. I started making mind map summaries for each lecture and started sharing them on LinkedIn as my daily learning capsule.

The response that was received from the Testing community was overwhelmingly positive. I would like to mention the name of Ajay Balamurugadas and Shailesh Gohel, who saw the seed of this book in me. Thanks to everyone for helping me with your positive feedback on mind maps/summaries.

This e-book is useful for anyone who wants to **understand, revise, study, or learn about software testing** and its foundational concepts.

Happy Reading! Happy Learning!



**Rahul Parwal**

**Student of Software Testing**

**Member of The Test Tribe Community**

 [rahul-parwal](https://www.linkedin.com/in/rahul-parwal)

 [parwalrahul](https://twitter.com/parwalrahul)

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*Dedicated to my father and mother,  
who taught me how to test, explore & share in life*

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# Foreword

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My name is on the BBST class, but I've never taught it. Cem Kaner put my name on it because he used so much of my material and ideas in the design. But, in fact, the class is a monumental curriculum development effort by Cem, himself. It's his vision and his philosophy of teaching, plus a couple of thousand hours of his meticulous labor. The closest I ever got to teaching it was when I was a "beta tester" student during the first-ever attempt to teach BBST. But I never finished it. I was expelled! Well, more accurately, Michael Bolton and I were kindly asked by Cem to drop out, because he was worried that we were too obsessive about the exercises. We were staying up all night competing with each other to give the most elaborate and deep answers to even simple questions. Cem thought we might be intimidating the other students.

I was very happy to stop. I needed to sleep. Taking BBST is a lot like climbing a mountain. I have my disagreements with the class, but in general, I would say that I admire anyone who passes it; and even people who didn't pass it but worked hard.

Back when he created BBST, Cem and I were collaborating on changing the world of testing. Each of us pursued this in his own ways. I am a high school dropout who distrusts formal schooling; Cem has two doctorates (a Ph.D. in psychophysics and a J.D.) and was a professor at the Florida Institute of Technology. I enjoy personally coaching and teaching, but that limits the impact I can have; Cem wanted something easier to scale.

BBST was originally developed as an undergraduate course at FIT, which explains its emphasis on grading. Cem was also hoping to create a compelling alternative to the shallow and poorly researched ISTQB certification.

In hindsight, Cem's vision didn't work out. Why? The ISTQB is popular BECAUSE it's shallow and poorly researched! That's why.

BBST is hard because developing COMPETENCE is hard.

ISTQB is easy because recycling popular myths on the internet about testing is easy.

In this booklet, Rahul has put together a tantalizing glimpse of some of its content.

If you are a serious student of testing, then I strongly suggest that you dive in.



**James Marcus Bach**

**Creator of Rapid Software Testing methodology**



[james-bach](https://www.linkedin.com/in/james-bach)



[jamesmarcusbach](https://twitter.com/jamesmarcusbach)

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RECOMMENDED READINGS

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# Introduction

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The Testing Foundations course is one of the most eye-opening and in-depth online course on the fundamental concepts in software testing and its critical challenges. I have tried to compile this e-book for anyone who wants to **understand, revise, study, or learn about software testing** and its foundational concepts.

**NOTE:** This e-book is in not a substitute for the TestingEducation.Org - Testing Foundations course but is an extension to it. It will help you to revisit the testing concepts and could be used as a cheat sheet for foundational testing knowledge on Software Testing.

This e-book consists of the topics ranging from the scope of testing, to software testing metrics.

It presents basic terminology in the field of software testing and considers:

- The Mission of Testing
- The Oracle Problem
- The Measurement Problem
- The Impossibility of Complete Testing

How to read mind maps:

- Start at 12 o'clock and go clockwise.
- Colors and Images have been added to the mind maps to give strength to the summary and make it easier to read.
- Different colored lines have been used to separate the different areas of the mind map.
- Symbols have been used to add extra strength to the associations and it can have a meaning of its own (not always).

A wireframe globe is positioned on the left side of the slide, partially obscured by a white rectangular area. To the right of the globe, a vertical bar consists of three stacked colored rectangles: a green one at the top, a teal one in the middle, and a dark grey one at the bottom.

# Chapter One

## Overview & Basic Definitions



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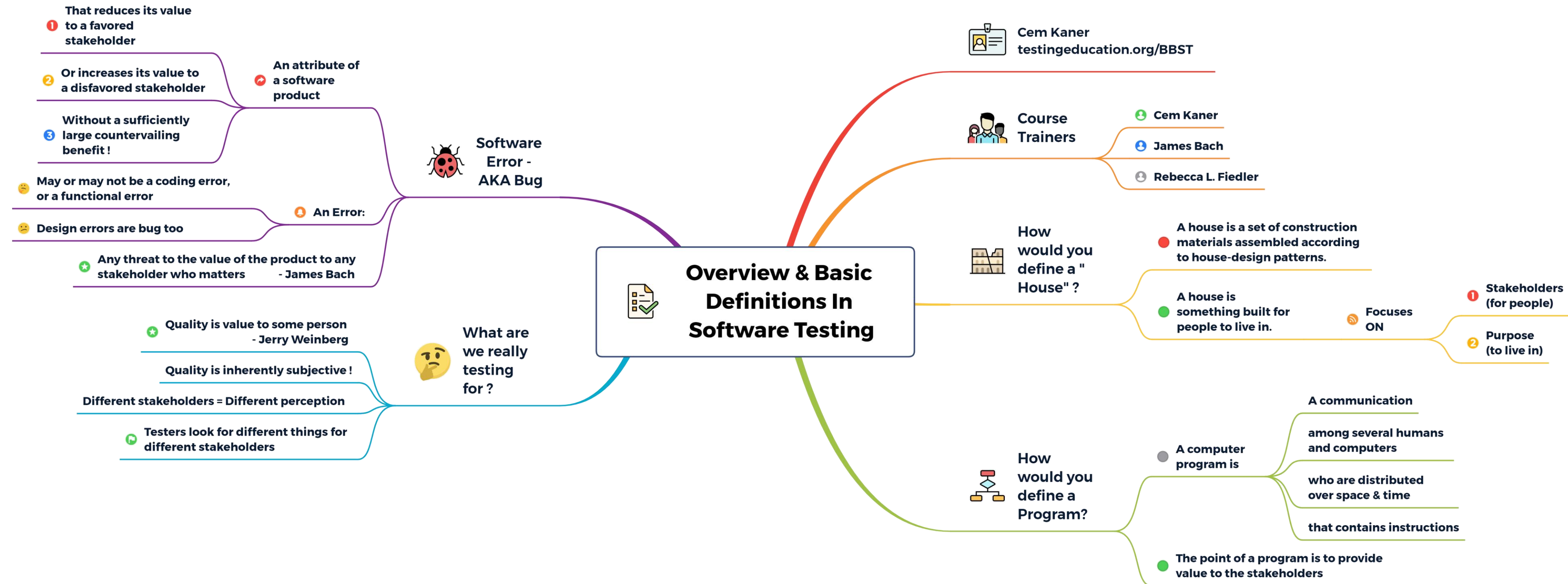
# Overview & Basic Definitions

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This section provides an overview of the online Testing Foundations course and introduces some definitions commonly used in the testing field.

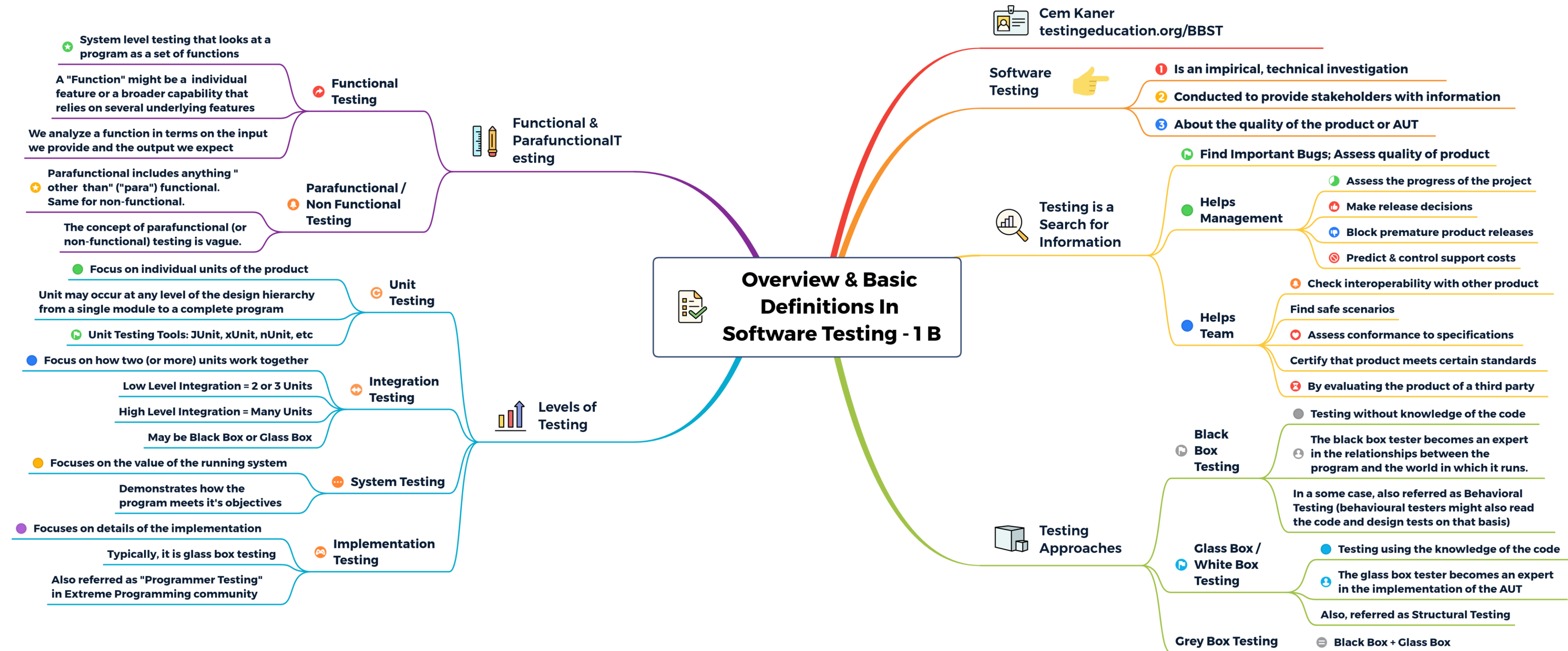
## **Topics Covered:**

- Definitions
- What are we really testing for?
- Software Error – AKA Bug
- Software Testing
- Testing Approaches
- Levels of Testing
- Functional & Parafunctional Testing
- Acceptance Testing
- Independent Testing



## Foundations – 1A, Overview & Basic Definitions in Software Testing

[Click Here For Interactive Mindmap](#)



## Foundations – 1B, Overview & Basic Definitions in Software Testing

[Click Here For Interactive Mindmap](#)



Cem Kaner  
[testingeducation.org/BBST](https://testingeducation.org/BBST)



## Overview & Basic Definitions In Software Testing - 1 C



### Acceptance Testing



Acceptance testing is applicable if we have contract based requirements !



It's a common usage term with many local variations



When in doubt, it's better to check your local definitions !



### Independent Testing



Testing done by a third party !

Some companies have an independent in-house test group



Key notion is that the independent testers aren't influenced or pressured to analyze and test the software in ways preferred by the developers.

Independent labs might do any type of testing.



Varies a lot in reality despite it's so called "Independent" name

Foundations – 1C, Overview & Basic Definitions in Software Testing

[Click Here For Interactive Mindmap](#)