

Exploratory Testing – Notes

Learning Resource: Exploratory Testing (tutorials, blogs, Hendrickson's concepts)

1. What is Exploratory Testing?

- **Definition:** Exploratory testing is a software testing approach where testing, designing and execution happen simultaneously. Instead of following a pre-defined test case, the tester comes up with creative scenarios based on their skills, adaptability and past observations to detect bugs.
- **How it differs from scripted/manual testing:** In scripted/manual testing, tester follows a collection of pre-defined test cases for a particular scenario, leaving little room for creative freedom whereas in exploratory testing, the tester designs and executes tests spontaneously without following a scripted procedure in order to find errors/bugs.
- **When to use it:** It is used to understand a complex application where environments are rapidly changing assessing user experience or when the results are unexpected or time is limited.

2. Key Concepts

Charters: Defining the goal and time of testing e.g., Validating the “Add to cart” functionality of an e-commerce website in 45 minutes.

Tours: Creative ways to test a scenario e.g., attempt to add quantities exceeding available stock, add products with different colors, sizes, or other variations, test cart behavior when network connectivity is interrupted etc.

Heuristics & Oracles: Heuristics are strategies to guide test idea generation (e.g., Boundary Value Analysis) and Oracles are mechanisms/principles that help you decide if behavior is correct (e.g., consistency across browsers).

3. Practical Application

- How could I apply exploratory testing on demo apps like OrangeHRM?

For OrangeHRM I'd perform exploratory testing by focusing on login and employee management modules, exploring how they interact with user when I put long username or leave the text fields empty or what would happen on multiple invalid login attempts, checking whether it behaves unexpectedly or handle it gracefully.

- Example scenario/charter I'd test:

Explore the OrangeHRM “Add New Employee” module to assess how it will handle incorrect data format, empty fields, long strings and special characters within 30 minutes session.