

Exploratory Testing Practicum

Exploratory testing is software-testing approach that combines simultaneous learning, test design and test execution. While testing, the tester develops a better understanding of the problems space and, together with experience and creativity, generates new good tests to run. There are many skills and tactics that successful exploratory testers employ when testing.

The two day **Exploratory Testing Practicum** provides a hands-on introduction to exploratory testing and is designed to give students supervised practical application of the skills and tactics covered in the course. After taking this course, students will be able to more easily identify and apply various test oracles, will have a number of tools for generating and structuring test ideas, should be comfortable interacting with a variety of applications and recording those interactions, and will know techniques for chartering and managing their testing.

Day one of the course provides a hands-on introduction to exploration and covers a large amount of theory, tools, and techniques for simultaneous learning, test design and test execution.

Day two of the course students will test a variety of applications; sometimes pairing with other students, sometimes supervised, and sometimes on their own. After each test session the group will convene to discuss various approaches, what students learned about the application and their own testing, and discuss what worked, what didn't, and why that might be.

The course covers the following topics:

- An introduction to exploratory testing
- Developing and using heuristics
- Identifying and using heuristic test oracles
- The evolving work products used by exploratory testing
- Exploratory testing polarities
- Testing considerations
 - Project environment
 - Product elements
 - Quality criteria categories
 - General test techniques
- Exploration skills and tactics
 - Serving your clients
 - Chartering your work
 - Reporting your work
 - Developing ideas
 - Asking useful questions
 - Creating and testing conjectures
 - Pursuing a line of inquiry
 - Practicing curiosity

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- Dynamically focusing your attention
- Branching your work and backtracking
- Alternating activities to improve productivity
- Maintaining useful records
- Generating new ideas and elaborating on them over time
- Overproducing ideas for better selection
- Abandoning ideas for faster progress
- Recovering or reusing ideas
- Creating and using models
- Interacting with the world
 - Collaborating for better ideas
 - Discovering or developing resources
 - Finding or creating tools
 - Interacting with your subject
 - Observing what is there
 - Observing what is not there
- Session-based test management (SBTM)
- Creating and using a testing dashboard
- Introducing exploratory testing into your organization

Attendees of the course will receive copies of the following materials:

- Exploratory Testing Practicum course guide
- Mike Kelly's Test Heuristics Cheat Sheet
- Quality Tree Software Test Heuristics Cheat Sheet
- Dynamics of Exploratory Testing handout
- Satisfice Heuristic Test Planning Context Model
- Satisfice Heuristic Test Strategy Model

NOTE: *Laptops are required for the course.*

About Mike Kelly

Mike is a Partner at Developer Town - a venture development firm. His focus is software testing, he leads projects for Developer Town, provides consulting services, and regularly provides training publically and for companies. When he consults, his longer engagements include some level of project management and/or test management. He is most passionate about exploratory testing, performance testing, and testing in an agile environment. He writes and speaks about topics in software testing and is a past director and president for the Association for Software Testing and a co-founder of the Indianapolis Workshops on Software Testing, a series of ongoing meetings on topics in software testing.

Email: mike.kelly@developertown.com

Phone: 317-709-2419