

Red Hat Training: DevOps Culture and Practice Enablement (TL500)

Duration: 5 Days

Prerequisites:

- Knowledge of agile practices is helpful
- Experience using agile practices and methodologies such as scrum is beneficial

Course Description:

Red Hat Training: DevOps Culture and Practice Enablement (TL500) is a five-day, immersive class offering students an opportunity to experience and implement cultural shifts that are utilized in many successful DevOps adoption journeys. Many agile training offerings focus on a particular framework, delivery mechanism, or technology. Instead, DevOps Culture & Practice combines the best tools from many leading frameworks to blend continuous discovery and continuous delivery with cultural and technical practices into a unique, highly-engaging experience simulating real-world scenarios and applications.

To achieve the learning objectives, participants should include multiple roles from an organization. Business product owners, architects, developers, and site reliability engineers will gain the experience of working outside of their traditional silos. The daily routine simulates a real-world delivery team, where cross-functional teams learn how collaboration breeds innovation. Armed with shared experiences and best practices, the team can apply what it has learned to help the organization's culture and mission succeed in the pursuit of new projects and improved processes.

This course includes a copy of the Red Hat Training: Open Practices for your DevOps Journey course book, which can be used as a resource as students take the learnings from this course and apply them to other real world scenarios.

Intended Audience:

This experience demonstrates how individuals across different roles must learn to share, collaborate, and work toward a common goal to achieve positive outcomes and drive innovation. Business product owners, developers, site reliability engineers, and engineers will especially benefit from experiencing this scenario, which includes some technical aspects that rely on working with software systems. You will know how to deliver continuous value to customers through an enhanced understanding of changing customer needs and the ability to more rapidly get new ideas to market. Our instructors will share experiences and best practices learned from engaging directly with customers during Red Hat services engagements.

Course Outlines:

What is DevOps?

 Brainstorm and explore what principles, practices, and cultural elements make up a DevOps model for software design and development.

Collaborative practices to establish culture and shared understanding

 Learn and experience practices that facilitate great conversation and alignment across stakeholder groups such as priority sliders, pair programming, mob programming, conducting retrospectives, visualizing work, assessing team sentiment, and performing agile estimation.

Understanding the Why and Who of software delivery

 Use the impact mapping discovery practice to connect deliverables to measurable impact. Learn how to use human-centered design, design thinking, and Lean UX to develop empathy with users and stakeholders.

Domain-driven design and storytelling

 Learn and practice the powerful Event Storming tool to visualize and map event-driven systems to produce emergent architectures for iterative and incremental delivery.

Prioritization and pivoting

 Experience the collection of ideas, aligning them to target outcomes, and using economic prioritization practices and value slicing to build product backlogs that can deliver incremental value.

Agile practices

 Cover agile delivery practices, including Kanban, Scrum, sprint planning, daily standup, showcase, retrospective, and backlog refinement.

Design of experiments

 Set up, execute, and measure the results of experiments by utilizing platform's advanced deployment features, including A/B Testing, Blue/Green Deployments, Feature Toggles, Dark Launches, and Canary Deployments.

Value stream and process mapping

 Delve into the practices of value stream mapping and metric-based process mapping to establish non-functional improvements that you can make to product delivery and execution of value streams.

Continuous integration, deployment, and delivery

 Explore the foundational practices of continuous integration, continuous deployment, and continuous delivery.

Non-functional requirements

 Learn how to elaborate non-functional areas that are unlikely to be captured by using practices primarily focused on the functional aspects of a solution.

Testing

 Develop an understanding of test-driven development and business-driven development foundational practices, often called automated testing.

Everything as code and GitOps

 Explore continuous integration/continuous delivery pipelines using Jenkins and Tekton and sing a GitOps approach to codify everything for repeatability. Experience how to extend pipelines to cover non-functional testing, monitoring, and observability.