



GTech Learn

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Course Contents

GH-500: GitHub Advanced Security

Duration: 1 day	Level: Intermediate	Role: Administrator
Certification: Available	Public Schedules: View Dates	Private Delivery: Reach Us

What's included?

- ✓ Learn from Microsoft Certified Trainer (MCT's)
- ✓ 24x7 Lab Access
- ✓ Official Courseware
- ✓ Exam Preps / Practice Tests
- ✓ Badges & Completion Certificate
- ✓ Discounted Exam Vouchers



Digital & App Innovation
Azure

Training Services

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Overview

GitHub Advanced Security (GHAS) plays a crucial role in enhancing the security posture of software development projects on GitHub. It provides a comprehensive set of tools and features designed to identify and address security vulnerabilities throughout the development lifecycle. By integrating security directly into the development process with GHAS, your team can build more secure and reliable software. The course will explore how to utilize GHAS to maximize security impact and understand GHAS and its role in the security ecosystem.

Audience Profile

This course is intended for students who want to understand and implement advanced security practices with the help of GitHub Advanced Security (GHAS). They will learn how to significantly enhance software development processes and create a more resilient and secure development ecosystem using developer-first solutions to unlock the ability to keep code, supply chain, and secrets secure before you push to production. They will learn how GHAS gives security teams visibility into the cross-organizational security posture and supply chain and unparalleled access to curated security intelligence from millions of developers and security researchers around the world.

Contents

Learning Path 1: GitHub Advanced Security

- Define GHAS and the importance of the integral features such as Secret scanning, Code scanning, and Dependabot
- Explore how to utilize GHAS to maximize security impact
- Understand GHAS and its role in the security ecosystem

Learning Path 2: Configure Dependabot security updates on your GitHub repo

- Describe the dependency graph and how to export a Software Bill of Materials (SBOM).
- Identify the permissions and roles required to view and enable Dependabot alerts.
- Enable and configure Dependabot alerts and security updates.
- Create and configure the dependency review workflow.
- Identify, review, and address vulnerable dependencies.
- Describe the available tools for managing vulnerable dependencies on GitHub.

Learning Path 3: Configure and use secret scanning in your GitHub repository

- Secret scanning works and to whom it's available.
- To prevent secret leaks by enabling push protection.
- To enable secret scanning on your repository.
- To configure secret scanning according to your use case.
- To use secret scanning efficiently.

Learning Path 4: Configure code scanning on GitHub

- Describe code scanning.
- List the steps for enabling code scanning in a repository.

- Implement CodeQL analysis in a GitHub Actions workflow and (CI) tools.
- Explain how to configure code scanning on a repository using triggering events.
- Contrast the frequency of code scanning workflows (scheduled vs triggered by events).

Learning Path 5: Identify security vulnerabilities in your codebase by using CodeQL

- Install the CodeQL command-line interface (CLI) from the page for GitHub CodeQL releases.
- Create a database by using CodeQL to extract a single relational representation of each source file in the codebase.
- Run CodeQL in a database to find problems in your source code and find potential security vulnerabilities.
- Analyze CodeQL scan results by using GitHub-created queries or your own custom queries.

Learning Path 6: Code scanning with GitHub CodeQL

- Understand CodeQL and how it analyzes code.
- Understand QL, a unique logic programming language.
- Set up CodeQL based code scanning in a GitHub repository.
- Reference a custom CodeQL query.
- Configure the language matrix in a CodeQL workflow.
- Learn how to use the CodeQL CLI to generate code scanning results and upload them to GitHub.
- Implement custom build steps.

Learning Path 7: GitHub administration for GitHub Advanced Security

- Learn about the different GitHub Advanced Security features and their availability.
- How to enable GitHub Advanced Security according to your enterprise plan.
- How to manage access to the different GitHub Advanced Security features.
- How GitHub Advanced Security lets you manage security alerts.

Learning Path 8: Manage sensitive data and security policies within GitHub

- Create documentation that details security guidelines and useful information for collaborators.
- Set permissions and other rules.
- Manage repository rulesets.
- Automate processes that prevent security risks.
- Respond to sensitive data exposure.
- Export audit log records and git events.

About GTech Learn

Established in 2011 in the USA, GTech Learn is one of the leading IT training organizations in North America & South East Asia. Driven by its unique USPs, GTech Learn is spurring competition, meeting the unmet needs of customers, assisting in skills upgrade, and supplementing talent pools with its presence in the USA, Canada, Singapore and India. This is consistent with our vision to help our Learners with skills upgrade for enhanced career opportunities.







As a Microsoft Learning Partner, we offer a broad range of learning solutions across the full Microsoft technology stack that can be customized.

Since 2011, GTech Learn has been developing custom-fit learning solutions that involve creating and delivering maximum results.

We have successfully helped all types of businesses, government entities, and individuals. For this reason, GTech has chosen by Microsoft to deliver comprehensive learning programs around the globe.

With flexible learning options, state-of-the-art delivery methods, numerous language preferences, experienced instructors, and complete dedication to our students, GTech Learn has the capabilities to help students develop their Microsoft skill sets and achieve increasingly high standards of productivity while organizations of all sizes realize the full potential of their technology investments.

Our Accreditations with Microsoft

 Security Training Services	 Modern Work Training Services	 Business Applications Training Services
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