



# GTech Learn

*"Our focus is your Success"*



## Course Contents

### GH-900: GitHub Foundations

<b>Duration:</b> 2 day	<b>Level:</b> Beginner	<b>Role:</b> Administrator
<b>Certification:</b> Available	<b>Public Schedules:</b> <a href="#">View Dates</a>	<b>Private Delivery:</b> <a href="#">Reach Us</a>

#### What's included?

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

GitHub Foundations introduces you to the fundamental concepts, features, and products of GitHub. You'll discover the benefits of using GitHub as a collaborative platform and explore its core features, such as repository management, commits, branches, and merging. Through curated modules and hands-on exercises, you'll gain a solid understanding of GitHub's essential tools and be well-equipped to start contributing to projects and collaborating effectively within GitHub.

## Audience Profile

This course is intended for students who want to understand and GitHub best practices. You will understand the fundamental features of GitHub, learn about repository management, gain an understanding of the GitHub flow, including branches, commits, and pull requests. Additionally, you will explore the collaborative features of GitHub by reviewing issues and discussions and be able to manage your GitHub notifications and subscriptions.

## Contents

### Learning Path 1: Introduction to Git

- Understand what version control is.
- Learn about distributed version control systems like Git.
- Recognize the differences between Git and GitHub and understand their roles in the software development lifecycle

### Learning Path 2: Introduction to GitHub

- Identify the fundamental features of GitHub.
- Learn about repository management.
- Gain an understanding of the GitHub flow, including branches, commits, and pull requests.
- Explore the collaborative features of GitHub by reviewing issues and discussions.
- Recognize how to manage your GitHub notifications and subscriptions.

### Learning Path 3: Introduction to GitHub's products

- Define the difference between the different types of GitHub accounts: Personal, Organization, and Enterprise.
- Explain each GitHub plan: GitHub Free for personal accounts and organizations, GitHub Pro for personal accounts, GitHub Team, and GitHub Enterprise.
- Distinguish the features associated with accessing GitHub on GitHub Mobile and GitHub Desktop.
- Describe a brief overview of GitHub billing and payments.

### 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: Introduction to GitHub Copilot**

- Understand how GitHub Copilot can help you code by offering autocomplete-style suggestions.
- Understand the various ways to trigger GitHub Copilot.
- Comprehend the differences among GitHub Copilot Free, Pro, Business, and Enterprise.
- Know how to configure GitHub Copilot.
- Know how to troubleshoot GitHub Copilot.

## **Learning Path 6: Code with GitHub Codespaces**

- Explore the Codespaces lifecycle and processes.
- Review the ways you can customize your Codespace set up.
- Compare the differences between GitHub Codespaces and GitHub.dev.
- Complete an exercise to practice coding in Codespaces.

## **Learning Path 7: Manage your work with GitHub Projects**

- Discern the differences between Projects and Projects (Classic).
- Build an organization level Project.
- Organize your Project.
- Edit the visibility, access, and management of your Project.
- Develop automation and insights from your Project.

## **Learning Path 8: Communicate effectively on GitHub using Markdown**

- Use Markdown to add lists, images, and links in a comment or text file.
- Determine where and how to use Markdown in a GitHub repository.
- Learn about syntax extensions available in GitHub (GitHub-flavored Markdown).

## **Learning Path 9: Contribute to an open-source project on GitHub**

- Find open-source projects and tasks to contribute to in GitHub.
- Create pull requests to open-source projects.
- Implement best practices to communicate with open-source maintainers and perform code reviews.
- Find and engage with open-source communities.

## **Learning Path 10: Manage an InnerSource program by using GitHub**

- Contrast user- versus organization-owned projects.
- Make recommendations about the number of GitHub organizations you should have.
- Create discoverable repositories.
- Create robust repository READMEs.
- Use issue and pull-request templates.
- Distribute your InnerSource toolkit.

**Learning Path 11: Maintain a secure repository by using GitHub best practices**

- Recognize the importance of securing your repository and shifting left in the development lifecycle.
- Identify the tools, GitHub features, and best practices to establish a secure development strategy.
- Keep sensitive files out of your repository by applying the use of a .gitignore file.
- Identify how to detect and fix outdated dependencies with security vulnerabilities.
- Recognize advanced security features such as code scanning and secret scanning.

**Learning Path 12: Introduction to GitHub administration**

- Summarize the organizational structures and permission levels that GitHub administrators can use to organize members to control access and security.
- Identify the various technologies that enable a secure authentication strategy, allowing administrators to centrally manage repository access.
- Describe the technologies required to centrally manage teams and members using existing directory information services and how you can use GitHub itself as an identity provider for authentication and authorization.

**Learning Path 13: Authenticate and authorize user identities on GitHub**

- Identify the identity providers and technologies that support secure repository access.
- Understand the implications of enabling SAML SSO.
- Identify the authorization and authentication options available, and understand the administrator's role in enforcing a secure access strategy for a GitHub enterprise.
- Describe how users access private information in a GitHub organization.
- Evaluate the benefits of enabling Team Synchronization to manage team membership.

**Learning Path 14: Manage repository changes by using pull requests on GitHub**

- Review branches and their importance to pull requests.
- Define what a pull request is.
- Learn how to create a pull request.
- Understand the different pull request statuses.
- Walk through how to merge a pull request to a base branch.

**Learning Path 15: Search and organize repository history by using GitHub**

- Find relevant issues and pull requests.
- Search history to find context.
- Make connections within GitHub to help others find things.

**Learning Path 16: Using GitHub Copilot with Python**

- Configure a GitHub repository in Codespaces and installed the GitHub Copilot extension.
- Craft prompts to generate suggestions from GitHub Copilot.
- Apply GitHub Copilot to improve your Python projects.

## 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



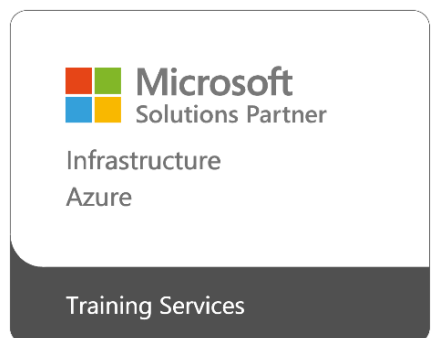
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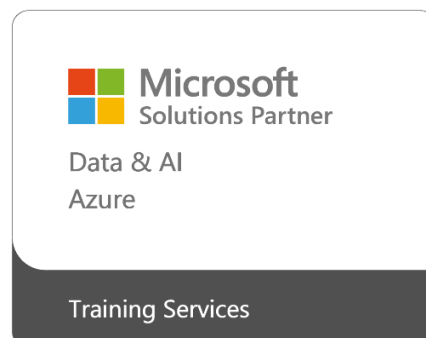
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