

# Introduction to GitHub

## Introduction

GitHub provides an AI-powered developer platform to build, scale, and deliver secure software. Whether you're planning new features, fixing bugs, or collaborating on changes, GitHub is where over 100 million developers from across the globe come together to create things and make them even better.

## Learning Objectives

In this module, you'll:

- 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.

## What is GitHub?

In this unit, we review the following learning objectives:

### Brief Overview of the GitHub Enterprise Platform

- Understand the key features and benefits of GitHub Enterprise.
- Learn how it enhances collaboration and security for enterprise teams.

### How to Create a Repository

- Step-by-step guide to creating a new repository on GitHub.
- Best practices for naming and organizing your repositories.

### Adding Files to a Repository

- Methods for adding files to your repository; through the web interface & command line.
- Tips for organizing files and directories within your repository.

### How to Search for Repositories

- Techniques for searching repositories on GitHub.
- Advanced search filters to find specific repositories based on criteria like language, size, and more.

### Introduction to Gists and Wikis

- What are Gists and how to use them for sharing code snippets.
- Overview of GitHub Wikis and how to create and manage them for project documentation.

## **GitHub Enterprise Platform Overview**

GitHub is a cloud-based platform that uses Git, a distributed version control system, at its core. The GitHub platform simplifies the process of collaborating on projects and provides a website, command-line tools, and an overall workflow that allows developers and users to work together seamlessly.

GitHub provides an AI-powered developer platform to build, scale, and deliver secure software. Let's break down each of the core pillars of the GitHub Enterprise platform: AI, Collaboration, Productivity, Security, and Scale.

### **AI**

Generative AI is dramatically transforming software development. The GitHub Enterprise platform enhances collaboration through AI-powered pull requests and issues, boosts productivity with GitHub Copilot, and improves security by automating security checks faster.

### **Collaboration**

Collaboration is at the heart of GitHub. Inefficient collaboration leads to wasted time and resources, so GitHub offers a suite of seamless tools that make collaboration effortless. Repositories, Issues, Pull Requests, and other tools enable developers, project managers, operations leaders, and others within the same company to work together more efficiently, reduce approval times, and ship products more quickly.

### **Productivity**

Productivity is accelerated with the automation provided by the GitHub Enterprise Platform. Built-in CI/CD (Continuous Integration and Continuous Delivery) tools are directly integrated into the workflow, allowing users to automate routine tasks and focus on more critical work. This gives developers more time to innovate and create solutions that matter.

### **Security**

GitHub integrates security directly into the development process from the start. The GitHub Enterprise platform includes native, first-party security features that minimize security risks with built-in solutions. Your code remains private within your organization, and you can take advantage of security overviews and Dependabot. GitHub continues to invest in enterprise-ready features, earning the trust of Microsoft and highly regulated industries by meeting global compliance requirements.

## **Scale**

GitHub is the largest developer community in the world, with real-time data on over 100 million developers, 330 million repositories, and countless deployments. By understanding the shifting needs of developers, GitHub continuously evolves its platform to meet their needs. This unmatched scale provides industry-changing insights and unmatched efficiency.

## **Developer Experience**

In essence, the GitHub Enterprise Platform focuses on the developer experience. It offers:

- Scale: Industry-changing insights from the largest developer community.
- Collaboration: Tools for transformative efficiency.
- Productivity: Automation tools to speed up day-to-day work.
- Security: Security features integrated at every step.
- AI: Powering the platform to new heights with advanced automation and insights.