

## **GH-900: GitHub Foundations**

### **Domain 1: Introduction to Git and GitHub (22%)**

#### **Understand the basics of Git**

- 1 Explain what Git is and why it is used
- 2 Describe the basic Git workflow
- 3 Understand the concept of repositories
- 4 Explain the difference between local and remote repositories

#### **Work with Git commands**

- 5 Initialize a Git repository
- 6 Clone a repository
- 7 Add and commit changes
- 8 Push and pull changes
- 9 Understand branching and merging

#### **Navigate GitHub**

- 10 Create a GitHub account
- 11 Create and manage repositories on GitHub
- 12 Understand the GitHub interface
- 13 Use GitHub issues and pull requests

### **Domain 2: Working with GitHub Repositories (8%)**

#### **Manage repository settings**

- 14 Configure repository settings
- 15 Set up repository permissions
- 16 Use repository templates

#### **Work with files in a repository**

- 17 Add, edit, and delete files
- 18 Understand file versioning
- 19 Use GitHub Desktop for file management

### **Domain 3: Collaboration Features (30%)**

#### **Collaborate using GitHub**

- 20 Fork repositories
- 21 Create and manage pull requests
- 22 Review and merge pull requests
- 23 Use GitHub Actions for CI/CD

#### **Use GitHub for project management**

- 24 Create and manage issues
- 25 Use labels, milestones, and projects
- 26 Track progress with GitHub Projects

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Domain 4: Modern Development (13%)	
Implement DevOps practices	
27	Understand the principles of DevOps
28	Use GitHub Actions for automation
29	Implement CI/CD pipelines
Use GitHub for code review	
30	Conduct code reviews
31	Use GitHub's code review tools
32	Understand best practices for code reviews
Domain 5: Project Management (7%)	
Manage projects with GitHub	
33	Create and manage GitHub Projects
34	Use project boards for task management
35	Integrate GitHub Projects with issues and pull requests
Domain 6: Privacy, Security, and Administration (10%)	
Ensure repository security	
36	Set up branch protection rules
37	Use security features like Dependabot
38	Manage repository access and permissions
Administer GitHub organizations	
39	Create and manage organizations
40	Set up organization-level security
41	Manage teams and members
Domain 7: Benefits of the GitHub Community (10%)	
Engage with the GitHub community	
42	Participate in open source projects
43	Use GitHub Discussions
44	Contribute to community projects