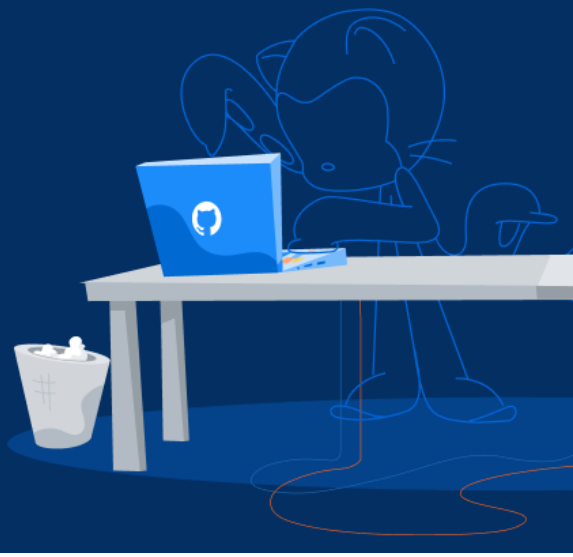
GitHub

Exam GH-100

GitHub Foundational Exam Sample Questions



Question 1	Which statement describes how Git works? Git stores data:
A	as a list of file-based changes.
*B	as a series of snapshots of a miniature filesystem.
C	as changes made to each file over time.
D	in a centralized server.

Question 2	What is a merge conflict?
A	a process in which Git automatically creates a new merge commit
B	a new merge commit in which Git resolves differences in two branches of code by applying standard conflict-resolution markers
*C	an event when Git is unable to resolve differences in code between two commmits
D	a merge tool that addresses conflicts and resolves them for you

Question 3	What is a pull request? Pull requests are: (Each answer presents a complete solution. Choose two.)
A	suggested improvements, tasks or questions related to a repository
*B	used to propose changes to the project files.
C	used to collect user feedback and organize tasks.
*D	proposed changes to a repository that can be accepted or rejected.

Question 4	Which licensing statement best describes a project to be truly open source?
A	no obligation to choose a license because everyone can use and share your code
B	licenses only apply to proprietary software projects
C	a software license must be chosen for your open source project
*D	it is recommended to choose a license because without it, the default copyright laws apply

Question 5	Which statements are true about GitHub Marketplace? (Each answer presents a complete solution. Choose two.)
*A	a digital catalog with hundreds of software listings from independent software vendors
B	only registered and verified users can access and download software from GitHub Marketplace
*C	a place where apps and actions can be found to improve your workflow

Question 6	What is a workflow?
A	allows you to test your code with different software and operating system
*B	are custom automated processes to automate your software development lifecycle
C	are used to connect databases, web services, and other tools
D	analyzes the the code to see whether the change in your branch introduces an error

Question 7	How can secrets be utilized on GitHub?
A	to retrieve billing data about your GitHub Actions consumption
B	to store a private SSH key
C	to store environment variables in a GitHub Actions workflow
*D	to store sensitive data in a GitHub Actions workflow

Question 8	Which statements are true about organizational membership?
A	a member with write privileges for a repository can invite you to collaborate
B	by default, your membership visibility is set to be public
*C	by default, your membership visibility is set to be private
D	removing yourself from an organization requires admin approval

Question 9	Which GitHub product includes a cloud-hosted and self-hosted deployment option?
*A	GitHub Enterprise
B	GitHub Team
C	GitHub Free for organizations
D	GitHub Pro

Question 10	How does GitHub alert you for security vulnerabilities? (Each answer presents a partial solution. Choose three.)
*A	a Dependabot alert is sent to the maintainers of the affected repositories
B	a Dependabot alert is sent to all members of the affected repositories
*C	a link to the affected file is sent
*D	information about a fixed version is sent
E	GitHub detects and sends vulnerability dependencies by default for both private and public repositories

Answers

1.B - The major difference between Git and any other VCS is the way Git thinks about its data. Git thinks about its data more like a stream of snapshots and basically takes a picture of what all your files look like every time you commit, or save the state of your project. Source: Git-scm.com - What is Git.

2.C - A merge conflict occurs when two files have changes in a common segment of lines. If a conflict is found, a warning and brackets of the conflict is produced. Source: Git-scm.com - Git-merge-file and Git-scm.com - Basic Branching and Merging.

3.B and D - Pull requests are used to propose changes to the project files and review potential changes with collaborators. A pull request introduces an action that addresses an Issue. A Pull Request is considered a "work in progress" file until it is merged into the project. Source: Githubtraining.github.io - Collaborating on code and Docs.github.com - pull request.

4.D - Public repositories on GitHub are often used to share open source software. For your repository to truly be open source, you'll need to license it so that others are free to use, change, and distribute the software. Source: docs.github.com - Licensing a repository.

5.A and C - GitHub Marketplace is a way to discover and purchase tools such as apps and actions that extend your workflow. Source: github.com/marketplace.

6.B - Workflows are custom automated processes that you can set up in your repository to build, test, package, release, or deploy any project on GitHub. With workflows you can automate your software development life cycle with a wide range of tools and services. Source: docs.github.com - Configuring a workflow

7.D - Secrets allow you to store sensitive information in your repository or organization. Source: docs.github.com - Using variables and secrets in a workflow

8.C - By default, your organization membership visibility is set to private. You can choose to publicize individual organization memberships on your profile. Source: docs.github.com - About organization membership

9.A - GitHub Enterprise includes two deployment options: cloud-hosted and self-hosted. Source: docs.github.com - GitHub products

10.A, C, D - GitHub detects and alerts users to vulnerable dependencies in public repositories by default but not for private repositories. When GitHub identifies a vulnerable dependency, a Dependabot alert is sent to the maintainers of affected repositories with details of the vulnerability, a link to the affected file in the project, and information about a fixed version. Source: docs.github.com - About alerts for vulnerability