

Angel Umi Heri

Introduction to GitHub.

Question 1.

GitHub is a platform that revolutionizes how software developers collaborate on projects. It offers essential tools for version control, issue tracking and code review.

Here are its key features:

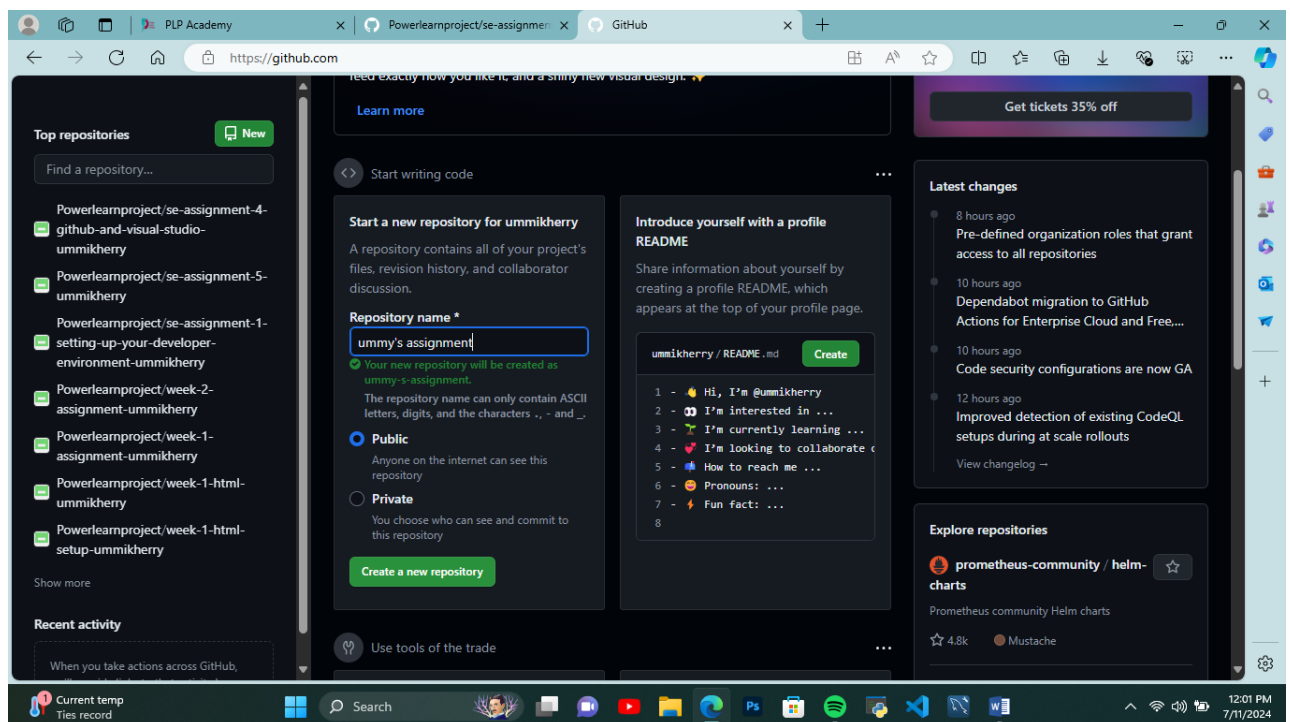
- **Version control with Git:** developers can work simultaneously on the same project without conflicts.
- **Repositories:** repos hold files, documentation, and the history of changes.
- **Branching and merging:** developers create branches within repos to work on updates or fixes without affecting the main project.
- **GitHub actions:** integrates with various development tools, automating workflows for continuous integration and delivery.

Question 2.

A repository is a collection of files of various different versions of a project.

How to create a GitHub repository.

1. After signing in to GitHub, click the green 'create repository' button.
2. On the 'new repository' page, provide a name for your repo, a brief description and choose whether it is public or private.



Question 3.

Version control is a system that tracks changes to files over time. It allows you to recall specific versions later.

How Git enhances version control for developers:

- GitHub provides a centralized platform for hosting Git repos. Developers can share code, track changes and manage projects together.
- GitHub hosts repos remotely, allowing access from anywhere.
- Merging branches in GitHub creates a coherent project history where developers can integrate changes from different branches seamlessly.

Question 4.

Importance of branches.

- Branches allow developers to work on features, bug fixes.
- Developers create feature branches to build specific features independently.
- Branches help isolate bug fixes, ensuring they don't disrupt ongoing development.
- Multiple developers can work on different branches simultaneously.