#### Q1: How does GitHub differ from saving files on your local desktop?

Answer:

GitHub allows you to store your code on the cloud, which makes it accessible from any device, anywhere.

Unlike saving files locally, GitHub offers:

Version control: Track every change made to your code.

Backup: Your work is safe even if your computer crashes.

Collaboration: Multiple people can work on the same project at the same time.

Local storage is private and isolated, but GitHub is like having a “shared memory” in the cloud.

#### Q2: In what ways can GitHub support cloud-based project work?

Answer:

GitHub supports cloud-based project work by:

Enabling real-time collaboration between team members from different locations.

Supporting CI/CD workflows (Continuous Integration / Continuous Deployment).

Integrating with cloud platforms like AWS, Azure, Heroku to automate deployments.

Providing tools like Issues, Pull Requests, and Actions to manage the full development lifecycle in the cloud.

#### Q3: What are the potential risks or challenges of moving code from local machines to GitHub (cloud)?

Answer:

Some challenges include:

Security risks: Accidentally pushing sensitive information (like passwords or API keys).

Data privacy: Especially if repositories are public.

Merge conflicts: When multiple developers edit the same file at the same time.

Learning curve: Beginners may struggle with Git commands and workflows.

However, with best practices and proper settings, these risks can be minimized.