



INTRODUCTION TO GITHUB

QCC TECH WORKS

COURSE OUTLINE

- ▶ Goals:
 - ▶ Create a GitHub account.
 - ▶ Create a Repository for our first website.
 - ▶ Push our project to our new Repository.



WHAT IS GITHUB?



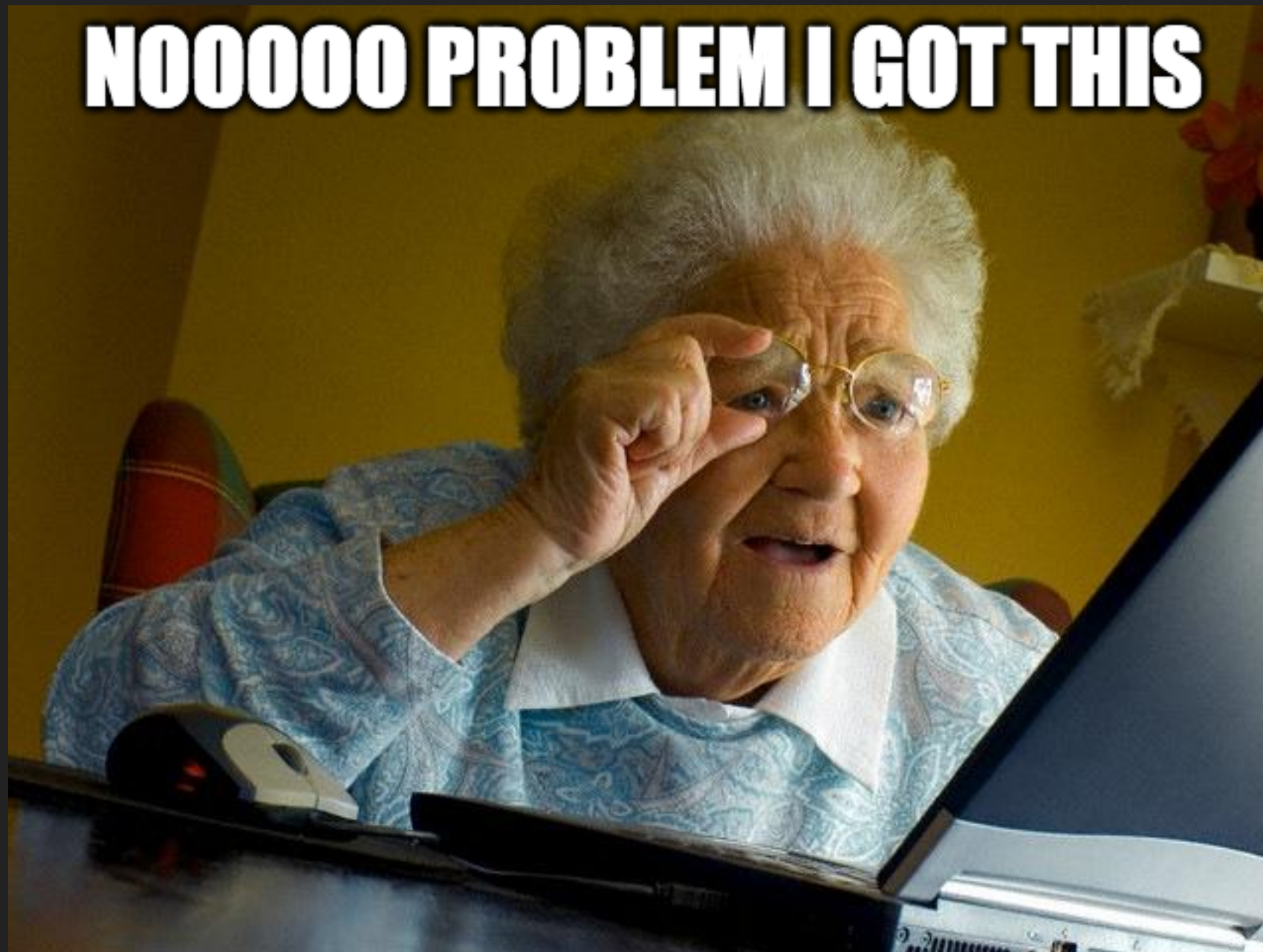
- ▶ Github is a website and a cloud-based service that allows software developers to store, manage, and track changes to their code.
- ▶ Two key principles of GitHub that you need to understand are Version Control - and Git

WHAT IS VERSION CONTROL

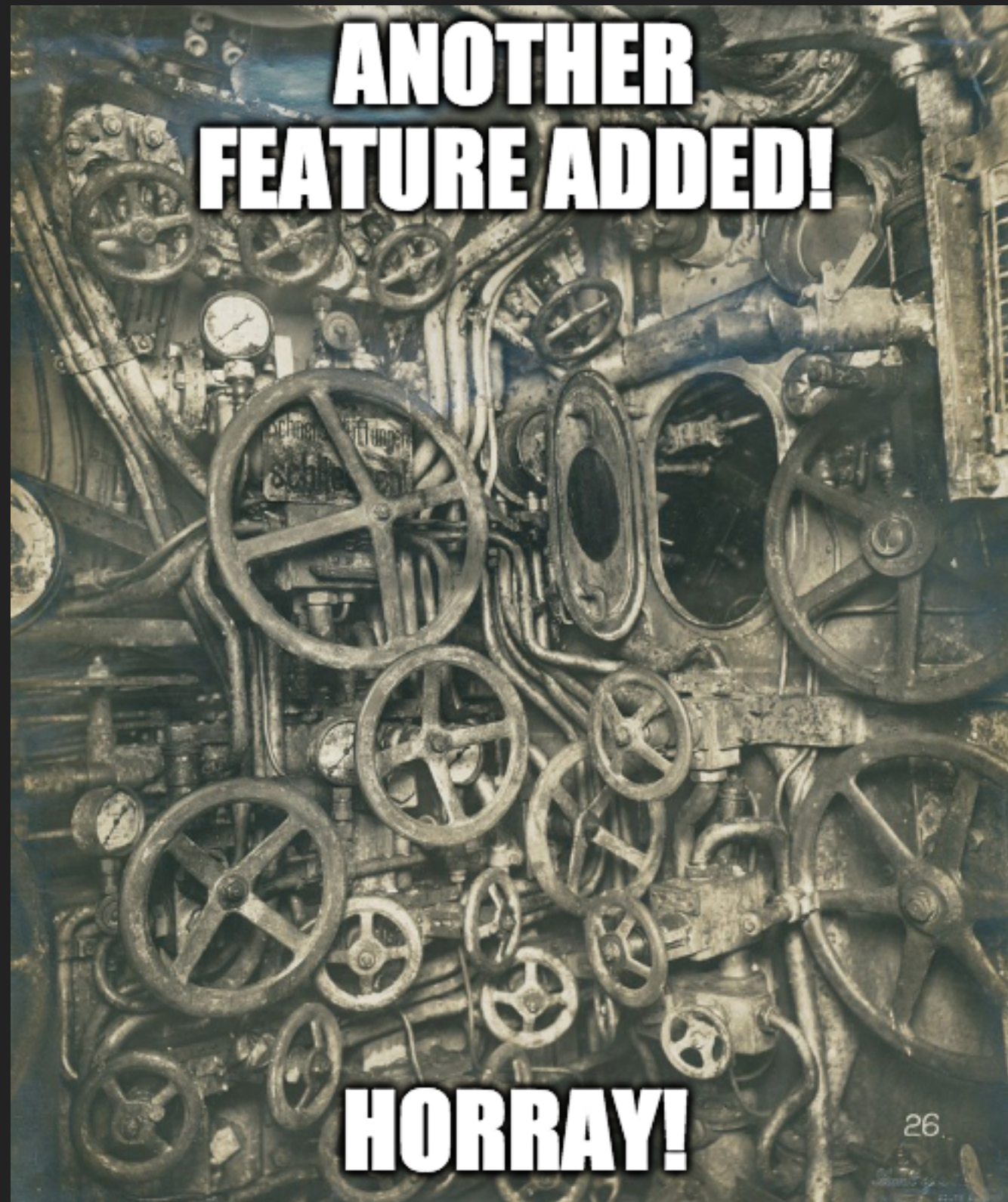
- ▶ Version control allows software developers to track, and manage changes to a project's code.
- ▶ This is very important as software projects continually grow - and have more than one collaborator.
- ▶ Take Facebook for example - Facebook has a massive code base... millions of lines code - tons of features and is a very very stable platform.

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- ▶ A Facebook developer is given the task to create a new feature.



- ▶ The developer can now work safely on this feature by **branching** and **merging**.
- ▶ When a developer makes a **branch**... he or she duplicates all or part of the source code (The main repository). This allows the developer to make changes to part of the code without affecting the rest of the project.
- ▶ These changes that are staged to be **merged** with the official source code - are reviewed by one or more senior developer, and once it's tested and approved. The new feature will be **merged** and a new version of Facebook with the added feature will be released.



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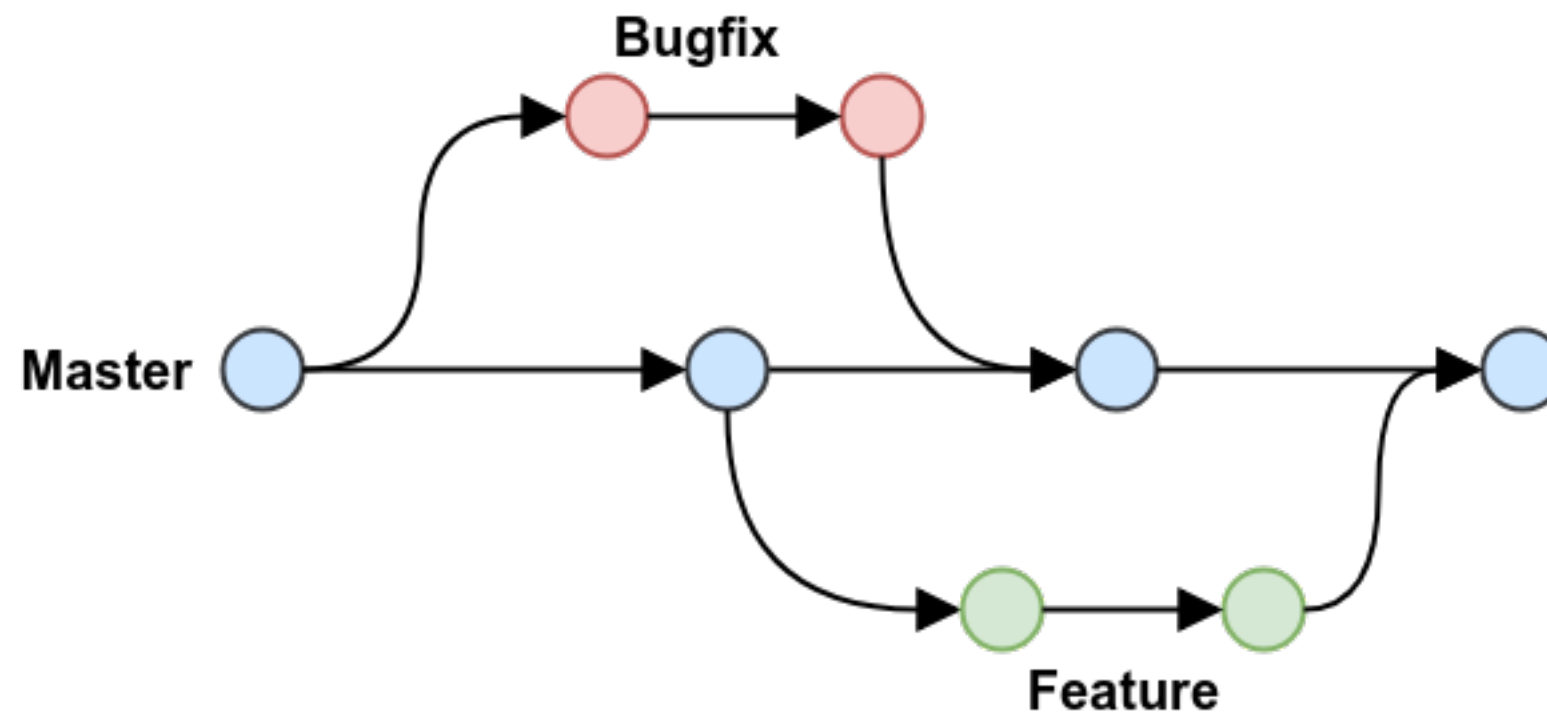
- ▶ With version control - all of these changes are tracked, and can be reverted if bugs or your project is experiencing bad side effects.



WHAT IS GIT?

- ▶ Git is an open-source version control system created by Linus Torvalds in 2005
- ▶ More specifically, Git is a distributed version control system, which means that the entire codebase and history is available on every developer's computer, which allows for easy branching and merging.
- ▶ Lots of people use Git - Stack Overflow developer survey states that 70% of developers use Git.

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WHAT IS GITHUB?

- ▶ GitHub is a for-profit company that offers a cloud-based Git repository hosting service.
- ▶ Anyone Can sign up and host a public code repository for free, which makes GitHub popular with open-source projects.

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RESOURCES

- ▶ [GitHub Introduction](#)
- ▶ [Git Branching lesson](#)
- ▶ [GitHub guides](#)