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NAO ID: 3319

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In-Mexico Program Backend Developer Certification

GitHub and Digital Repository Management:

Final – GitHub

Business Overview

A technology company aiming to standardize collaboration workflows. The main goal is to accelerate new developer onboarding and ensure best practices in version control.

Problem Context

Need: New developers lacked a clear process to configure Git and integrate with GitHub, causing delays in collaboration.

Example: Developers with no prior Git experience struggled with installation, configuration, and contributing to repositories.
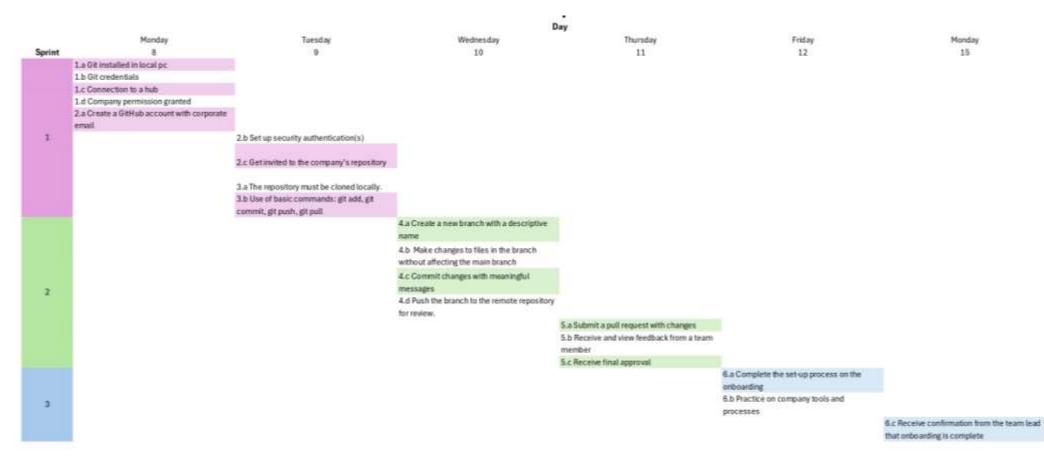
Hypothesis

If new developers follow a guided workflow for installation, configuration, and GitHub practice, then they will integrate faster into the team, adopt better version control practices and reduce errors when managing branches and pull requests.

Backlog

Requirements	Stages	Time estimation	Deliverables
The system must allow developers to configure a Git environment that supports collaboration within the company.	1	1	• Git installed and configured on the machine (installation screenshot) • .gitconfig file with credentials • Proof of successful connection (screenshot)
Developers must be able to create and access a corporate GitHub account to contribute to company repositories.	1	1	• GitHub account created (profile screenshot) • Authentication setup documented (SSH key or 2FA)
The system must allow developers to interact with repositories using Git commands.	1	1	• Repository cloned locally • Commit history visible in git log. • Evidence of git push and git pull working (logs or screenshots)
Developers must be able to work on independent branches without affecting the main branch.	2	1	• New branch created • List of commits with meaningful messages

			• Branch pushed to remote repository (git push origin)
The system must support code review workflows via pull requests.	2	1	• Pull Request created on GitHub (PR screenshot) • Comments/reviews from at least one team member • Evidence of changes made after feedback (additional commits) • PR approved and merged into main
The onboarding process must provide access to company tools, processes, and confirmation of completion.	3	5	• Onboarding checklist completed (document/task marked on internal platform) • Evidence of practice with company tools • Written confirmation from team lead or manager (email, ticket, or signed document)

Roadmap

	Monday	Tuesday	Wednesday	Thursday	Friday	Monday
Sprint	8	9	10	11	12	15

Day

Sprint 1

1.a Git installed in local pc
1.b Git credentials
1.c Connection to a hub
1.d Company permission granted
2.a Create a GitHub account with corporate email

2.b Set up security authentication(s)

2.c Get invited to the company's repository

3.a The repository must be cloned locally.
3.b Use of basic commands: git add, git commit, git push, git pull

Sprint 2

4.a Create a new branch with a descriptive name
4.b Make changes to files in the branch without affecting the main branch
4.c Commit changes with meaningful messages
4.d Push the branch to the remote repository for review.

5.a Submit a pull request with changes
5.b Receive and view feedback from a team member
5.c Receive final approval

Sprint 3

6.a Complete the set-up process on the onboarding
6.b Practice on company tools and processes

6.c Receive confirmation from the team lead that onboarding is complete

Evaluation Criteria

Customer satisfaction: Developers integrate faster and with fewer errors.

Scope: Covers the entire onboarding process, from installation to real collaboration.

Innovation: Standardized process that includes active feedback in Pull Requests.

Solution

Designed and executed a three-phase onboarding process with clear deliverables (screenshots, PRs, checklists).

Validated that new developers completed all activities and collaborated without affecting the main branch.

Conclusions

Goal achievement: Structured onboarding successfully enabled Git adoption for beginners.

Recommendations:

- Keep onboarding guides updated.
- Add advanced Git training sessions.
- Automate parts of the checklist with bots or scripts.

Key learnings:

- Hands-on practice in controlled environments accelerates the learning curve.
- Pull Request feedback is essential to consolidate best practices.