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## Github and Digital Respostory Management SPRINT 2

IN-MEXICO PROGRAM BACKEND DEVELOPER CERTIFICATION

User Story	Requirements
As a developer, I want to create a new GitHub repository so that I can store and manage my project online.	Must provide repository name and settings.  Repository must be visible in the account's repository list.
As a developer, I want to connect my local project to a GitHub repository so that I can push my code and make it available remotely.	Local project initialized with git init.  Remote repository linked via git remote add origin <url>.  Files added and committed.  Code pushed to remote branch.</url>
As a developer, I want to create a new branch so that I can work on features or fixes without affecting the main codebase.	Ability to create branches with git branch branch-name.  Ability to confirm with git branch.
As a developer, I want to update the requirements.txt file so that I can define or change the dependencies for my project.	Changes to requirements.txt must be saved locally.  Updates must be committed and pushed to the correct branch.
As a developer, I want to create and approve pull requests (PRs) so that I can merge contributions and maintain code quality.	Changes must be committed and pushed before creating PR.  PR must show differences between branches.

Collaborators must be able to review and approve.
GitHub must validate merge conflicts.

Requirements	Stages	Time estimatio n	Deliverables
Define repository name and visibility.  Repository should be created in GitHub and visible in the repo list.	<ol> <li>Navigate to github.com/new</li> <li>.</li> <li>Enter repository details.</li> <li>Click "Create repository."</li> </ol>	20 min	New GitHub repository ready for use.
Initialize local repository with git init.  Connect local repo to GitHub remote.  Stage, commit, and push files.	<ol> <li>Open Git Bash in project folder.</li> <li>Run git init.</li> <li>Add remote with git remote add origin <url>.</url></li> <li>Stage files with git add</li> </ol>	40 minutes	Local project uploaded and visible in GitHub repository.

Create a new branch without affecting the main codebase.  Verify branch creation.	<ul> <li>5. Commit with git commit -m "message".</li> <li>6. Push with git push origin branch-name.</li> <li>1. Run git branch branch-name.</li> <li>2. Verify with git branch.</li> </ul>	15 minutes.	New branch successfully created.
Modify requirements.tx t with updated dependencies.  Push changes to correct branch.	<ol> <li>Edit requirements.txt.</li> <li>Stage with git add requirements.txt.</li> <li>Commit with git commit -m "update requirements".</li> <li>Push changes with git push origin branchname.</li> </ol>	30 minutes.	Updated requirements.tx t visible in GitHub repository.
Create PR after pushing branch changes.  Compare changes between branches.  Collaborators must review and approve.	<ol> <li>Push committed changes.</li> <li>In GitHub, click "Create pull request."</li> <li>Add description/comments .</li> <li>Submit PR.</li> </ol>	1 hour.	Pull request created, reviewed, and successfully merged.

request."
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