PROJECT : Git/GitHub Command Line Interface

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CATEGORY: Desktop Application

PURPOSE: The purpose of developing this project is to make the version control system more user friendly and interactive while keeping the application lightweight.

SCOPE: Students, Developers and even people with less experience in version control systems would be able to interact with the application easily.

INTRODUCTION:
Introduction contain the following sub categories

- Existing System
  - The present system is an application provided by GitHub called GitHub Desktop, while it functions well in most cases, but it's not very light and consumes a lot of resources.
  - GitHub desktop also doesn't work on many systems including 32 bit Windows systems and Linux
- Proposed System
  - Our system aims to keep the application minimalistic by making application in a terminal environment
  - Even in a terminal environment we are aiming to keep full interactiveness.
  - Users would be able to use the application for most git commands like:
    - git commit
    - git push
    - git pull
    - git status
  - Users would also be able to use some GitHub functionality like:
    - Their own repositories
    - Explore other repositories
    - Followers' feed
- Advantages
  - Cross platform ability to use the terminal on most machines
  - Light on the computer
  - Writing commands is not required by the user

FUNCTIONAL REQUIREMENTS:
- All users must provide the Personal Access Token provided by GitHub
- Users need to have a little idea of version control systems
- Users can interactively use git commands like commit, push, pull, change branch, etc
- Users would be able to select files for staging by selecting the files provided by the menu

NON-FUNCTIONAL REQUIREMENTS:
- Secured storage of Personal Access Tokens
- Maximum availability time
- Efficient component design to make UI soothing
- Small package size and efficient API calls for minimum loading times

SOFTWARE TOOLS:

Client: Any terminal(bash, zsh, powershell, etc)
Development Tools: Visual Studio Code
Programming Language: JavaScript
Frameworks: React, InkJS, axios

DEPLOYMENT:
Operating System Server: Windows 7, 8, 10, Unix

HARDWARE SPECIFICATION:
Processor: Intel Core i3
RAM: 4GB
Hard Disk: 128 GB