Project 0
Use Git and implement a File Reader

This project will give you practice managing a project using ***git***. Various ***Git*** commands will be utilized.

Overview:

This project will cover initializing a new branch within an existing repo, setting up your .gitignore, and committing source code for an assignment.

1. Create and checkout a new branch in the MiniLanguage repo for Project 0
    a. **git status** to ensure that you are currently checked out in the master branch
    b. If you are not, make sure to **cd** to the repo path and **git checkout master**
    c. **git branch project0** to create the new branch
    d. **git checkout project0** to checkout the branch
    e. **git status** to validate that you are currently in the new branch
2. Determine the programming language you will be using for the MiniLanguage project
    a. Read the *Project 0 Description* companion document
    b. Read the *Submission Requirements* companion document
    c. Choose a high-level programming language that supports recursion and file input
    d. Recommended languages: Java 17+, C++ 11+, Python 3.11+, C# 10+
    e. Non-recommended languages: JavaScript, C, Go, Carbon-Lang
3. Create your .gitignore file in your repository
    a. This will satisfy #5 of the *Submission Requirements*
    b. Create a new **plaintext** file called **.gitignore** with a preceding period
    c. Depending on the programming language you chose, determine all binary file extensions and paths to blacklist
    d. (https://www.atlassian.com/git/tutorials/saving-changes/gitignore)
    e. Some examples of this are **.class* for Java, **.pyc* for Python, **.o* and **.exe* etc.
    f. Add the appropriate ignore patterns to new lines of the file
    g. Save the file to the directory of the repository
    h. Stage and commit the changes with an appropriate commit message
    i. **git add .gitignore** stages just the .gitignore file, and not the entire directory
    j. **git commit -m "added .gitignore file"**
4. Implement the File Reader assignment from the *Project 0 Description* document inside your repository directory using the programming language you have chosen
    a. Use your preferred editor or IDE and use the repository path as your workspace
    b. Stage and commit changes with appropriate commit messages as you progress with the assignment
    c. Do *not* do the assignment in a single commit, and do not squash commits
    d. Use effective code comments throughout the development process
    e. Prevent merge conflicts by pushing commits to the remote repository frequently

5. Update the *README.md* to the specifications in #3 of the *Submission Requirements* document, and remember to stage and commit all changes to the repository
6. Push all commits in the project0 branch to the remote Bitbucket repository
    a. **git push origin project0**
7. Submit the link to the project0 branch on Blackboard
    a. On the Source page for your Bitbucket repository, switch from the master branch to the project0 branch using the dropdown menu
    b. Copy the URL in your browser to your clipboard
    c. Go to https://blackboard.towson.edu
    d. Sign in and access the COSC 455 course
    e. Go to Projects / Project 0 / Project 0 Submission
    f. Submit the link you copied as a text submission (it should end with "/project0/")
8. Ensure that all source code and commits are current on Bitbucket prior to the deadline
    a. All repositories will be cloned at 12:30am after the deadline
    b. Early submissions may be graded prior to the deadline
    c. Unlimited re-submissions are accepted until the deadline