//Akash Chandran

https://github.com/AkashChand6n/Py_calc

Git and Github case study assignment

Case Study: Get/Developing a Simple Application

Scenario:

You are part of a small development team tasked with managing git tasks for a simple java/*.net/python/ruby application.

The application should allow users to:

Get/Create a simple application.

Requirements:

The application, the code in it should be different for each student.

Project Setup:

Create a new Git repository for the project.

Initialize the repository with a README.md file explaining the project.

Create a .gitignore file to exclude unnecessary files and directories from version control

(e.g. *.class files, *.jar files etc.).

Initial Development:

Create a new branch for the initial development (feature/initial-development).

Get/Develop the core functionality of the application.

Make multiple commits

Commit your changes regularly with meaningful commit messages.

Push your changes to your remote repository (e.g., GitHub).

Collaboration:

Create a pull request to merge your feature/initial-development branch into the main branch.

Simulate a code review by requesting feedback from a classmate (or an imaginary reviewer) and addressing their comments.

Implement merge using different strategies like

Rebase your branch onto the main branch before merging to maintain a clean linear history.

Fast-Forward

3 way commit

With conflict fix the conflict

Please ensure to push all changes to github so that we have traceability.

Ensure all changes are done with Verified user commit (signatures)

Enhancements:

Create a new branch (feature-test).

Develop and test the new feature.

Create a pull request for the feature-test branch.

Bug Fixes:

Create a new branch (bugfix/issue-1) to fix a bug you introduced in a previous commit.

Fix the bug and test thoroughly.

Create a pull request for the bugfix/issue-1 branch.

Version Control:

Create a tag (e.g., v1.0) to mark the initial release of the application.

Create a new branch (feature/new-ui) for a major UI/UX redesign.

Git LFS (Optional):

If your application involves large files (e.g., images, audio), experiment with Git LFS to store them more efficiently.

GitHub Administration (if applicable):

If working in a team, explore GitHub's team and organization features.

Experiment with different access control levels for team members.

Create a project board to track the progress of the project.

Git Hooks (Optional):

Implement a pre-commit hook to check for code style violations (e.g., using a linter).

Implement a post-receive hook to notify the team of new commits (e.g., via email or Slack).

Deliverables:

A well-structured Git repository with a clear commit history.

A working to-do list application with the required features.

A well-documented project with a README file.

A report summarizing the project, including the challenges faced and the lessons learned.

Assessment:

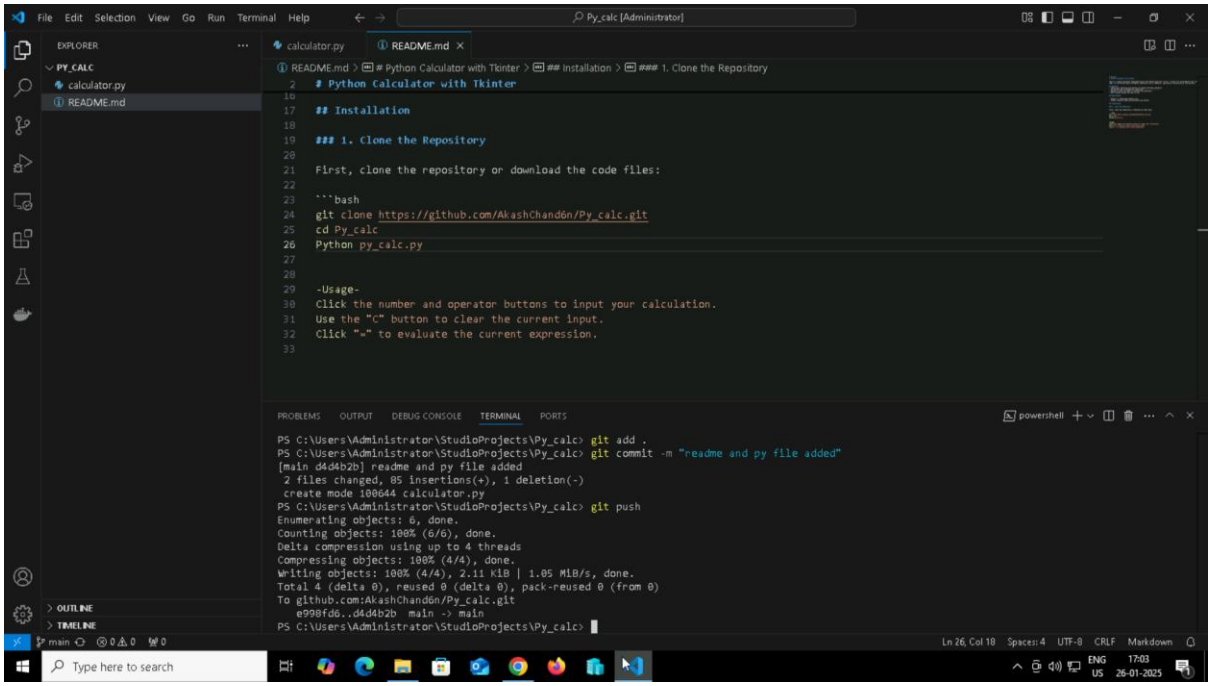
Code quality and readability.

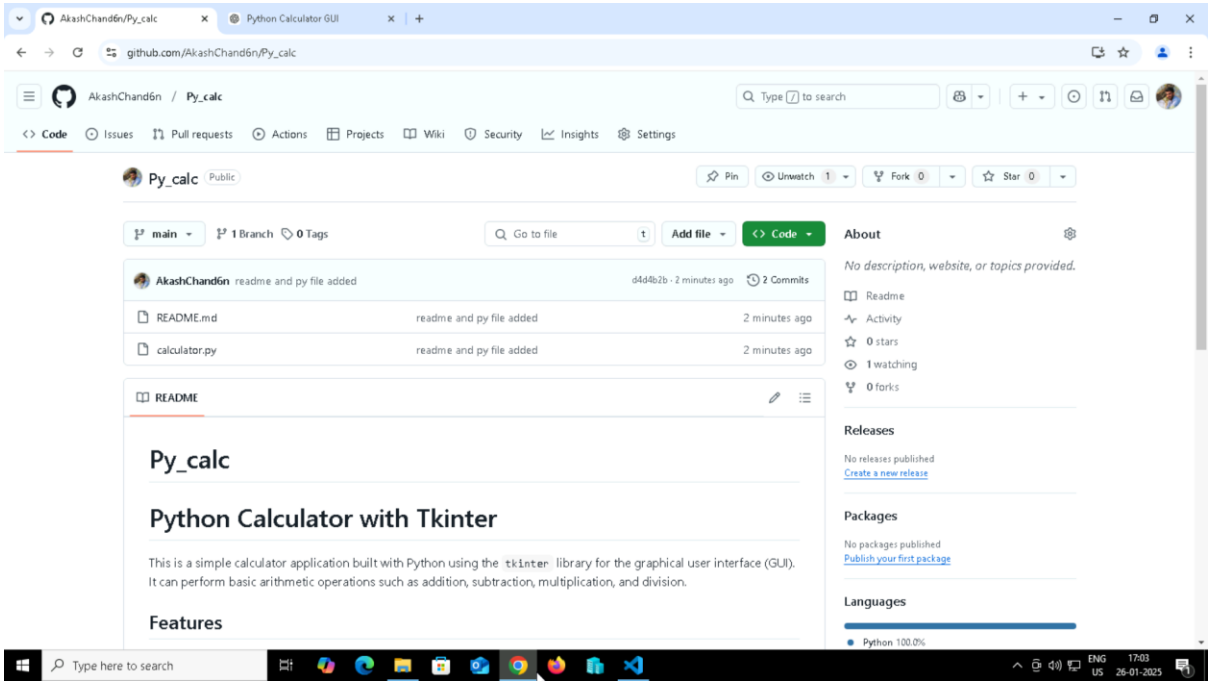
Git usage and best practices (branching, merging, rebasing, tagging).

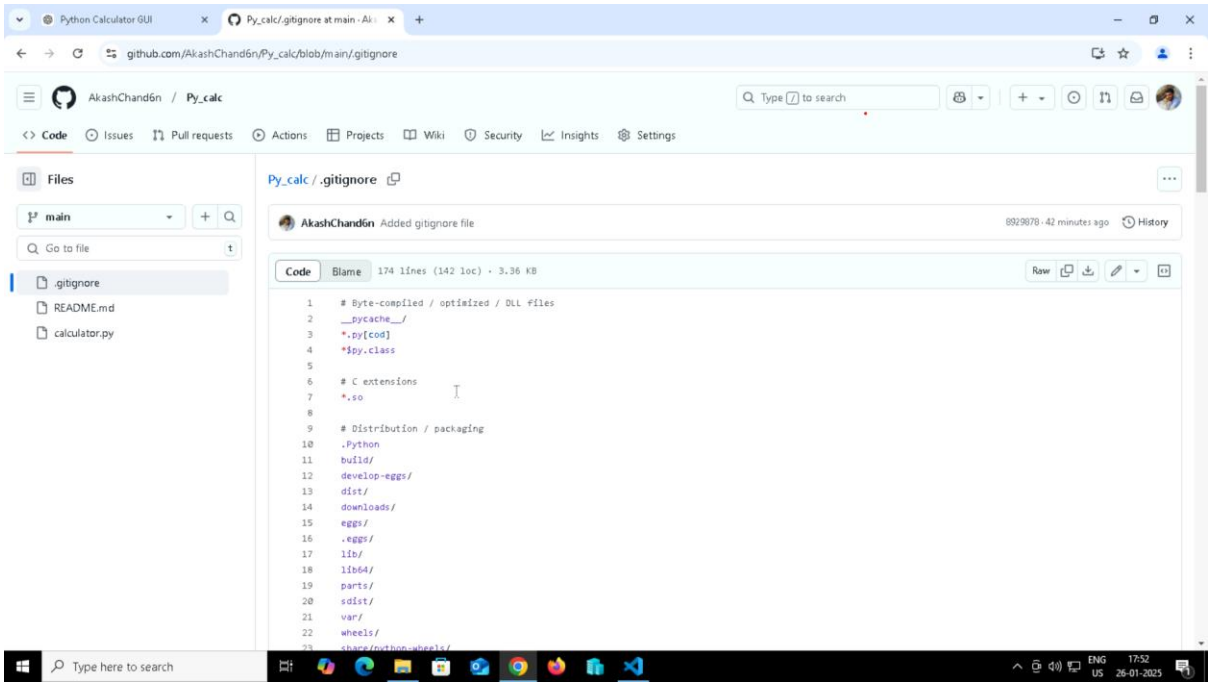
Collaboration and communication skills.

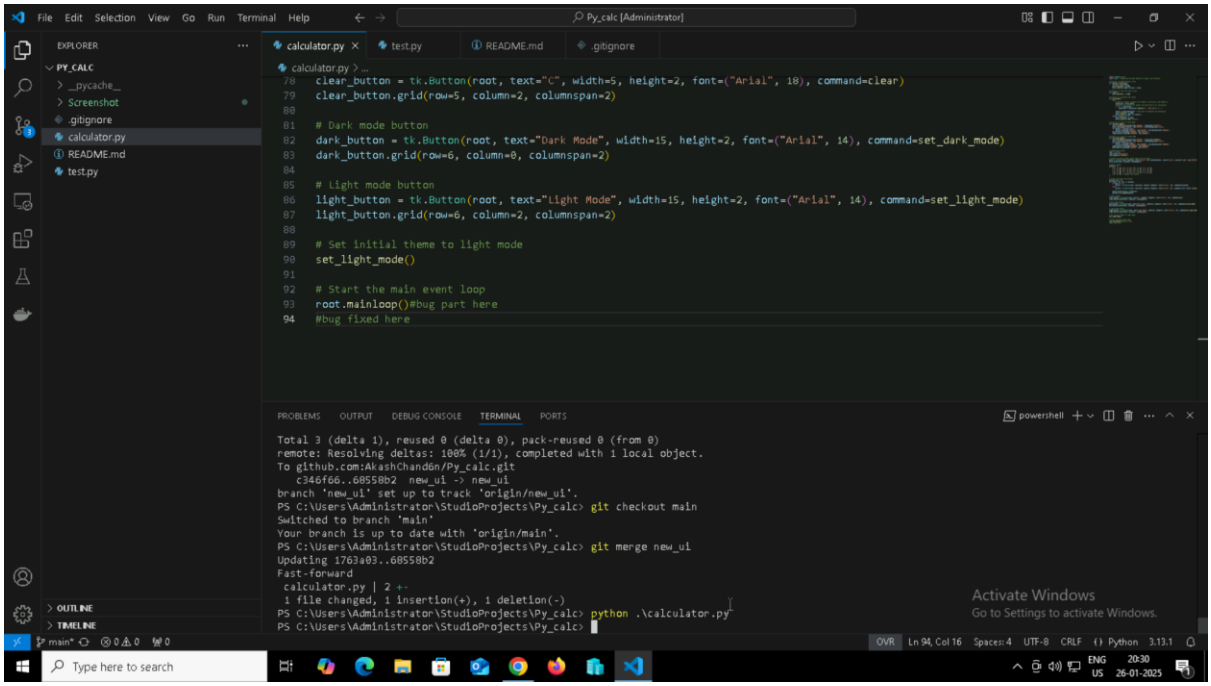
Understanding of Git concepts and commands.

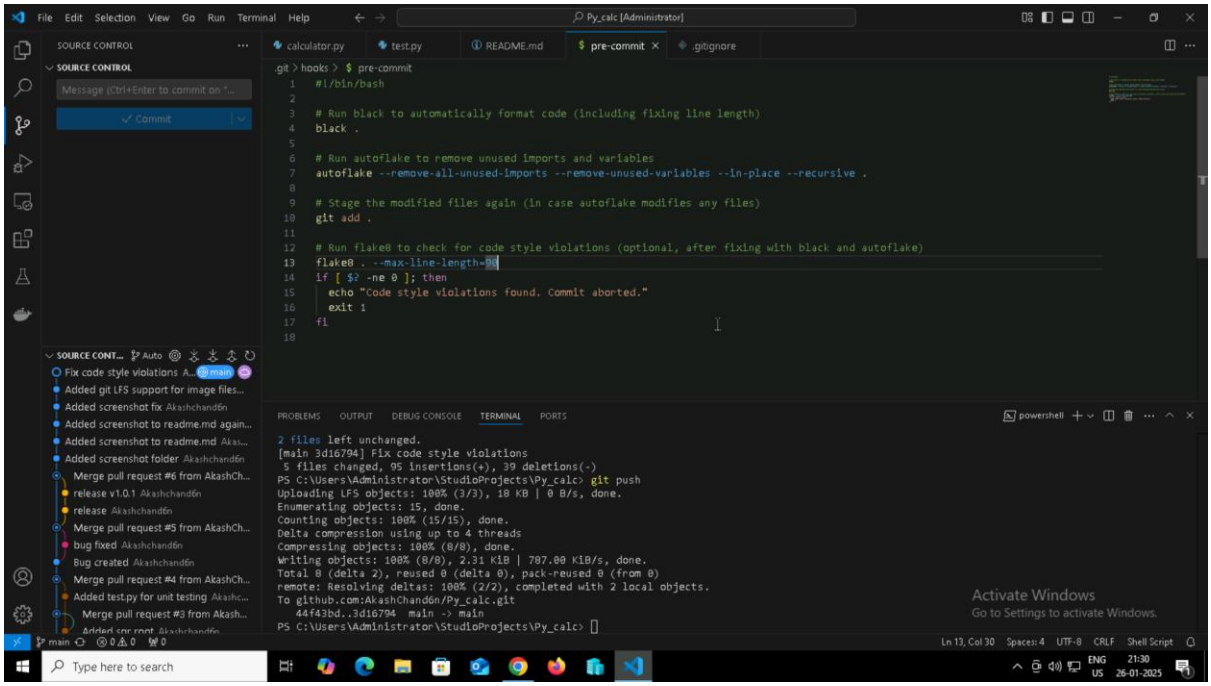
Ability to solve problems and troubleshoot issues.

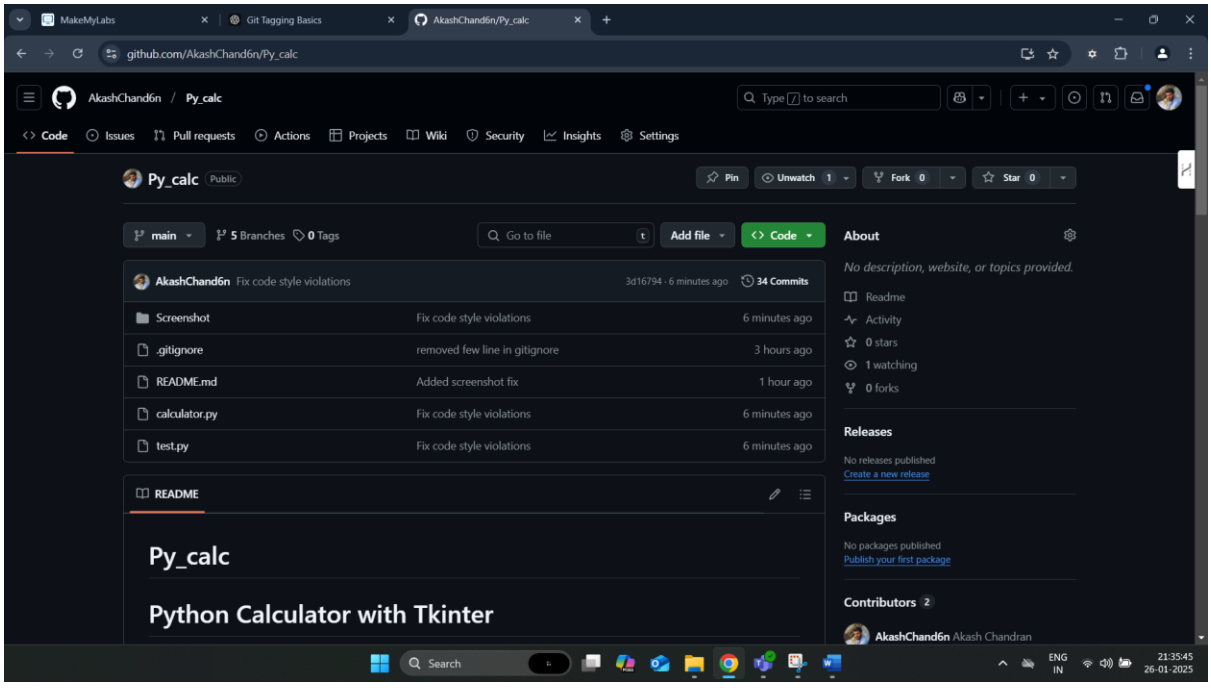

File Edit Selection View Go Run Terminal Help
Py_calc [Administrator]
EXPLORER
PY_CALC
calculator.py
README.md
Python Calculator with Tkinter
Installation
1. Clone the Repository
First, clone the repository or download the code files:
```bash
git clone https://github.com/AkashChand6n/Py_calc.git
cd Py_calc
Python py_calc.py
-Usage-
Click the number and operator buttons to input your calculation.
Use the "C" button to clear the current input.
Click "=" to evaluate the current expression.
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS C:\Users\Administrator\StudioProjects\Py_calc> git add .
PS C:\Users\Administrator\StudioProjects\Py_calc> git commit -m "readme and py file added"
[main d4d4b2b] readme and py file added
2 files changed, 85 insertions(+), 1 deletion(-)
create mode 100644 calculator.py
PS C:\Users\Administrator\StudioProjects\Py_calc> git push
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 4 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 2.11 KiB | 1.05 MiB/s, done.
Total 4 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To github.com:AkashChand6n/Py_calc.git
e998fd6..d4d4b2b main -> main
PS C:\Users\Administrator\StudioProjects\Py_calc>
Type here to search


AkashChand6n/Py_calc
Python Calculator GUI
github.com/AkashChand6n/Py_calc
AkashChand6n / Py_calc
Code Issues Pull requests Actions Projects Wiki Security Insights Settings
Py_calc Public
Pin Unwatch 1 Fork 0 Star 0
main 1 Branch 0 Tags Go to file Add file Code
AkashChand6n readme and py file added d4d4b2b · 2 minutes ago 2 Commits
README.md readme and py file added 2 minutes ago
calculator.py readme and py file added 2 minutes ago
README
Py_calc
Python Calculator with Tkinter
This is a simple calculator application built with Python using the tkinter library for the graphical user interface (GUI). It can perform basic arithmetic operations such as addition, subtraction, multiplication, and division.
Features
About
No description, website, or topics provided.
Readme
Activity
0 stars
1 watching
0 forks
Releases
No releases published
Create a new release
Packages
No packages published
Publish your first package
Languages
Python 100.0%
Type here to search
```


Python Calculator GUI
Py_calc/.gitignore at main · Ak
github.com/AkashChand6n/Py_calc/blob/main/.gitignore
AkashChand6n / Py_calc
Type / to search
Code
Issues
Pull requests
Actions
Projects
Wiki
Security
Insights
Settings
Files
main
Go to file
.gitignore
README.md
calculator.py
Py_calc / .gitignore
AkashChand6n Added gitignore file
8929878 · 42 minutes ago
History
Code
Blame
174 lines (142 loc) · 3.36 KB
Raw
Byte-compiled / optimized / DLL files
__pycache__/
*.py[cod]
*$py.class
C extensions
*.so
Distribution / packaging
.Python
build/
develop-eggs/
dist/
downloads/
eggs/
.eggs/
lib/
lib64/
parts/
sdist/
var/
wheels/
Type here to search
ENG
US
17:52
26-01-2025


File Edit Selection View Go Run Terminal Help
Py_calc [Administrator]
EXPLORER
PY_CALC
__pycache__
Screenshot
.gitignore
calculator.py
README.md
test.py
calculator.py
test.py
README.md
.gitignore
clear_button = tk.Button(root, text="C", width=5, height=2, font=("Arial", 18), command=clear)
clear_button.grid(row=5, column=2, columnspan=2)
# Dark mode button
dark_button = tk.Button(root, text="Dark Mode", width=15, height=2, font=("Arial", 14), command=set_dark_mode)
dark_button.grid(row=6, column=0, columnspan=2)
# Light mode button
light_button = tk.Button(root, text="Light Mode", width=15, height=2, font=("Arial", 14), command=set_light_mode)
light_button.grid(row=6, column=2, columnspan=2)
# Set initial theme to light mode
set_light_mode()
# Start the main event loop
root.mainloop()#bug part here
#bug fixed here
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
powershell
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To github.com:AkashChand6n/Py_calc.git
c346f66..68550b2 new_ui -> new_ui
branch 'new_ui' set up to track 'origin/new_ui'.
PS C:\Users\Administrator\StudioProjects\Py_calc> git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
PS C:\Users\Administrator\StudioProjects\Py_calc> git merge new_ui
Updating 1763a03..68550b2
Fast-forward
calculator.py | 2 +-
1 file changed, 1 insertion(+), 1 deletion(-)
PS C:\Users\Administrator\StudioProjects\Py_calc> python .\calculator.py
PS C:\Users\Administrator\StudioProjects\Py_calc>
Activate Windows
Go to Settings to activate Windows.
OUTLINE
TIMELINE
main*
OVR
Ln 94, Col 16
Spaces: 4
UTF-8
CRLF
Python
3.13.1
Type here to search
ENG
US
20:30
26-01-2025


File Edit Selection View Go Run Terminal Help
Py_calc [Administrator]
SOURCE CONTROL
calculator.py
test.py
README.md
pre-commit
.gitignore
.git > hooks > $ pre-commit
#!/bin/bash
Run black to automatically format code (including fixing line length)
black .
Run autoflake to remove unused imports and variables
autoflake --remove-all-unused-imports --remove-unused-variables --in-place --recursive .
Stage the modified files again (in case autoflake modifies any files)
git add .
Run flake8 to check for code style violations (optional, after fixing with black and autoflake)
flake8 . --max-line-length=90
if [$? -ne 0]; then
echo "Code style violations found. Commit aborted."
exit 1
fi
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
powershell
2 files left unchanged.
[main 3d16794] Fix code style violations
5 files changed, 95 insertions(+), 39 deletions(-)
PS C:\Users\Administrator\StudioProjects\Py_calc> git push
Uploading LFS objects: 100% (3/3), 18 KB | 0 B/s, done.
Enumerating objects: 15, done.
Counting objects: 100% (15/15), done.
Delta compression using up to 4 threads
Compressing objects: 100% (8/8), done.
Writing objects: 100% (8/8), 2.31 KiB | 787.00 KiB/s, done.
Total 8 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To github.com:AkashChand6n/Py_calc.git
44f43bd..3d16794 main -> main
PS C:\Users\Administrator\StudioProjects\Py_calc>
Activate Windows
Go to Settings to activate Windows.
Type here to search
ENG US
21:30
26-01-2025


MakeMyLabs
Git Tagging Basics
AkashChand6n/Py_calc
github.com/AkashChand6n/Py_calc
AkashChand6n / Py_calc
Type / to search
Code Issues Pull requests Actions Projects Wiki Security Insights Settings
Py_calc Public
Pin Unwatch 1 Fork 0 Star 0
main 5 Branches 0 Tags
Go to file t
Add file Code
About
No description, website, or topics provided.
Readme
Activity
0 stars
1 watching
0 forks
AkashChand6n Fix code style violations 3d16794 · 6 minutes ago 34 Commits
Screenshot Fix code style violations 6 minutes ago
.gitignore removed few line in gitignore 3 hours ago
README.md Added screenshot fix 1 hour ago
calculator.py Fix code style violations 6 minutes ago
test.py Fix code style violations 6 minutes ago
Releases
No releases published
Create a new release
Packages
No packages published
Publish your first package
Contributors 2
AkashChand6n Akash Chandran
README
Py_calc
Python Calculator with Tkinter
Search
ENG IN
21:35:45
26-01-2025