

# Simple Calculator App

One-page repository summary with CI/CD flow

## What it is

A learning-focused Python calculator repo that demonstrates professional CI/CD practices through a small CLI calculator and a test pipeline. It keeps the app simple while highlighting testing, reporting, and automation.

## Who it is for

Students, bootcamp grads, and developers learning DevOps/CI/CD.

## What it does

- Basic arithmetic: add, subtract, multiply, divide.
- Division by zero raises a clear `ValueError`.
- CLI demo plus interactive prompt for manual input.
- Pytest suite with Allure annotations and reporting hooks.
- CI pipeline runs lint/security/tests and publishes reports.

## How it works

### Components/services:

- `calculator/calculator.py`: Calculator class plus CLI demo and interactive mode.
- `tests/`: pytest test suite with Allure decorators.
- `.github/workflows/tests.yml`: CI pipeline, report generation, deploy.

### Data flow:

- User runs CLI -> inputs numbers -> Calculator methods -> printed results.
- pytest and CI run tests -> assertions -> reports -> GitHub Pages publish.

### CI/CD flow (from repo workflow):

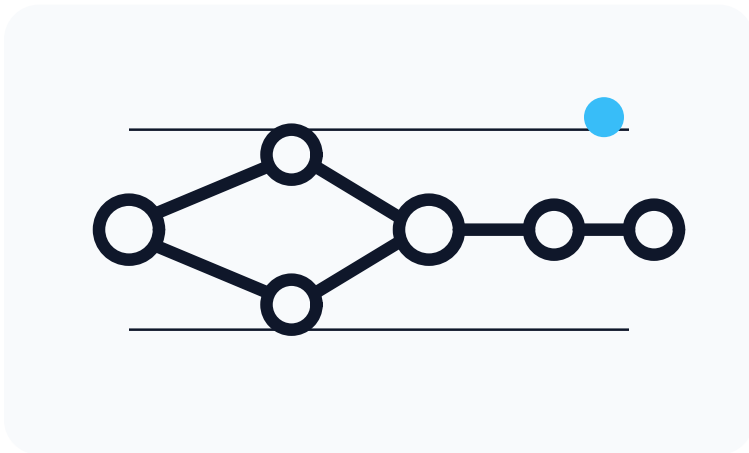


Figure: CI/CD pipeline summary

## How to run

- Install deps: `pip install -r requirements.txt`
- Run the app: `python -m calculator.calculator`
- Run tests (optional): `pytest`