

NextHikes

Calculator In Python

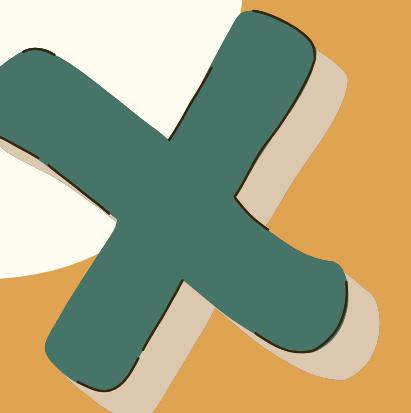
Ankita Taneja





Slides :

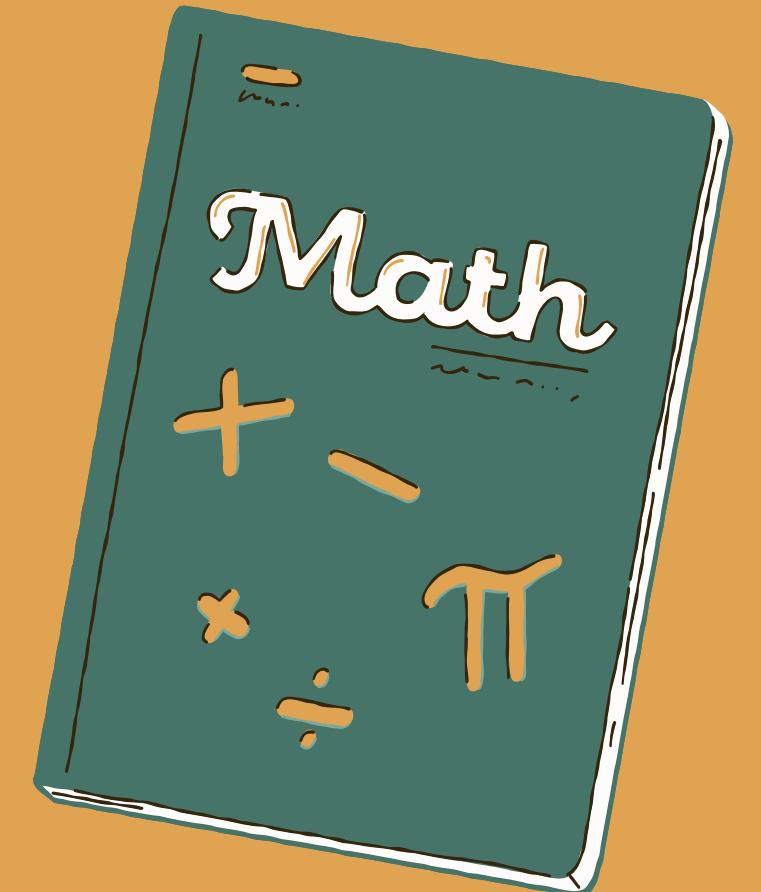
- Introduction to the Company
- Introduction to Project
- Basic Arithmetic Operations in Python
- Building a Simple CLI Calculator
- Introduction to Tkinter for GUI
- Creating a Basic GUI Calculator
- Enhancing the Calculator
- Conclusion



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NextHikes IT Solution is a prominent IT services provider based in Gurgaon, India. It specializes in cutting-edge digital solutions to help businesses thrive in the digital age. Its service portfolio includes website development, mobile app development, software development, and comprehensive SEO strategies.

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- **Mobile App Development:** Developing native and hybrid mobile applications tailored to client requirements.
- **SEO Services:** Implementing strategies to enhance online visibility and search engine rankings.

Introduction

A calculator is a basic Python application to perform arithmetic operations like +, -, *, and /.

Language Used

Python provides multiple ways to create a calculator (CLI-based, GUI-based) using Tkinter Library.

Arithmetic

+

Addition

-

Subtraction

×

Multiplication

mm

Operations

\log_{10}

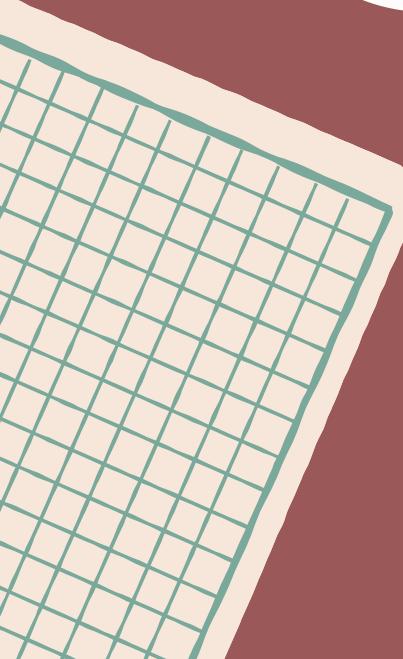
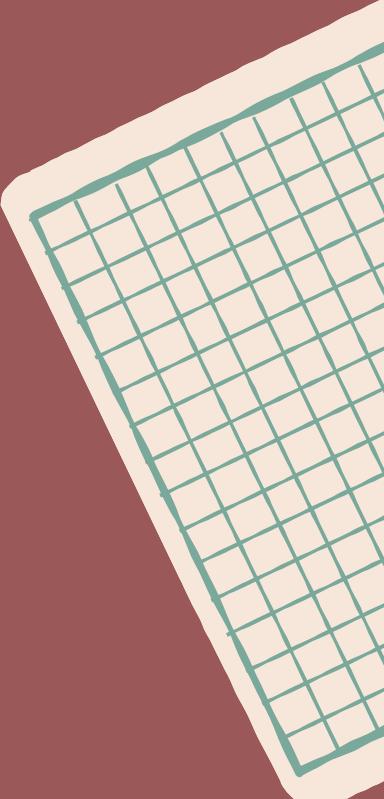
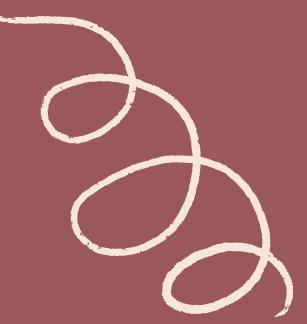
Logarithm

÷

Division

%

Percentage



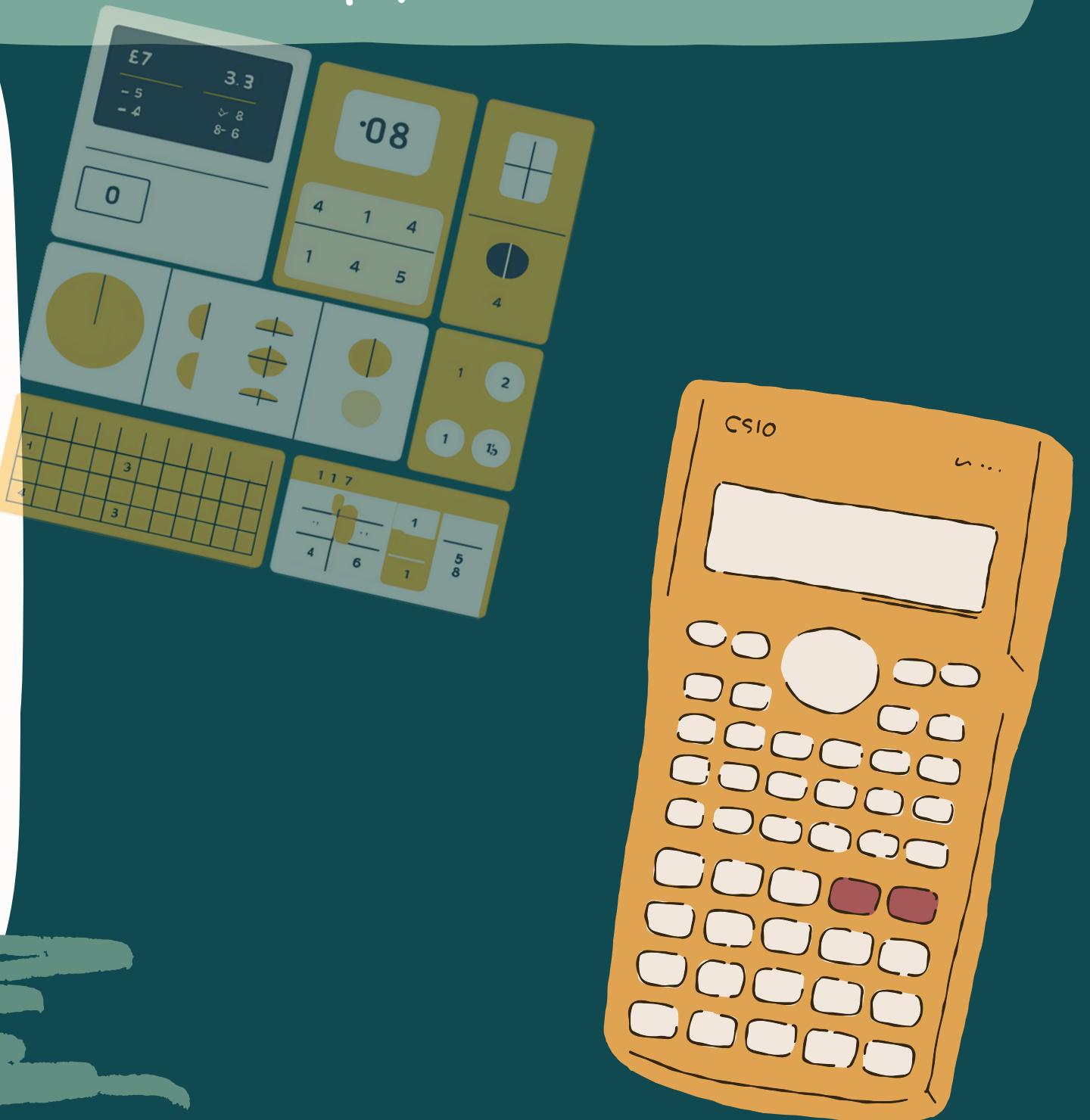
Interface

A user interface (UI) is the way a user interacts with a device or program.

User Interface are of two types:

1. CLI - Command Line User Interface.
2. GUI - Graphical User Interface.

1. Multiply the numbers
2. Multiply the variables



Tkinter

Tkinter is Python's built-in library for GUI applications.

Library

Provides widgets like buttons, labels, and entry fields to create an *interactive calculator*.



Tools



Used



Creating a Basic GUI Calculator

Steps to create a GUI calculator

1.

Open Visual Studio
Code

2.

Open Project and
create file

3.

Add an entry field
for input

4.

Add buttons for
numbers & operators

5.

Implement event handling
for calculations

Code Structure

Import Tkinter

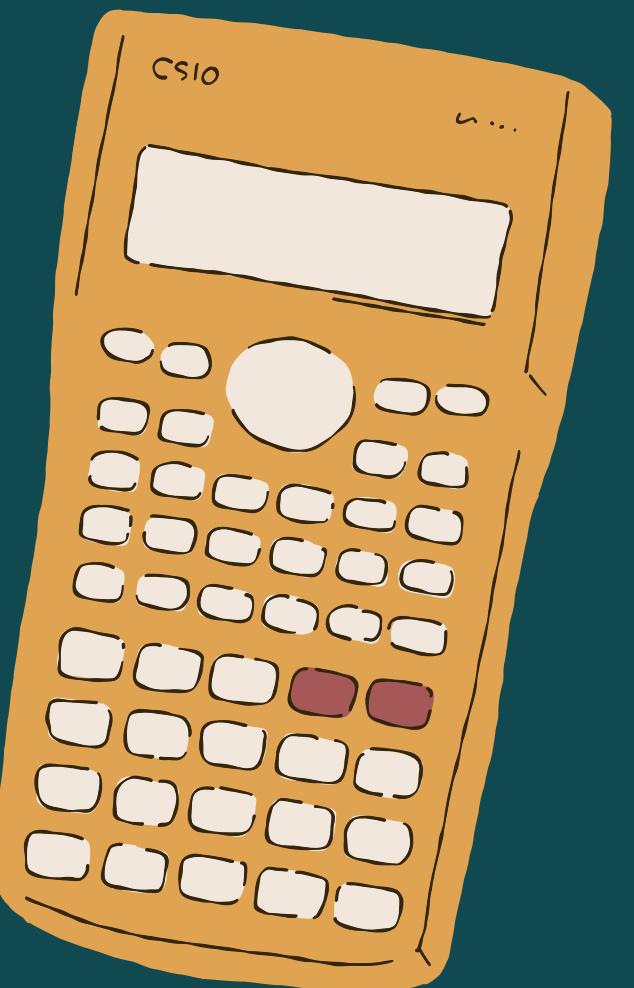
1. Create Class Calculator

- Define Method init with self and master attributes

> Create master container with input field and buttons in dynamic rows and columns keyboard.

- ## 2. Create input field for input by defining method create_display.

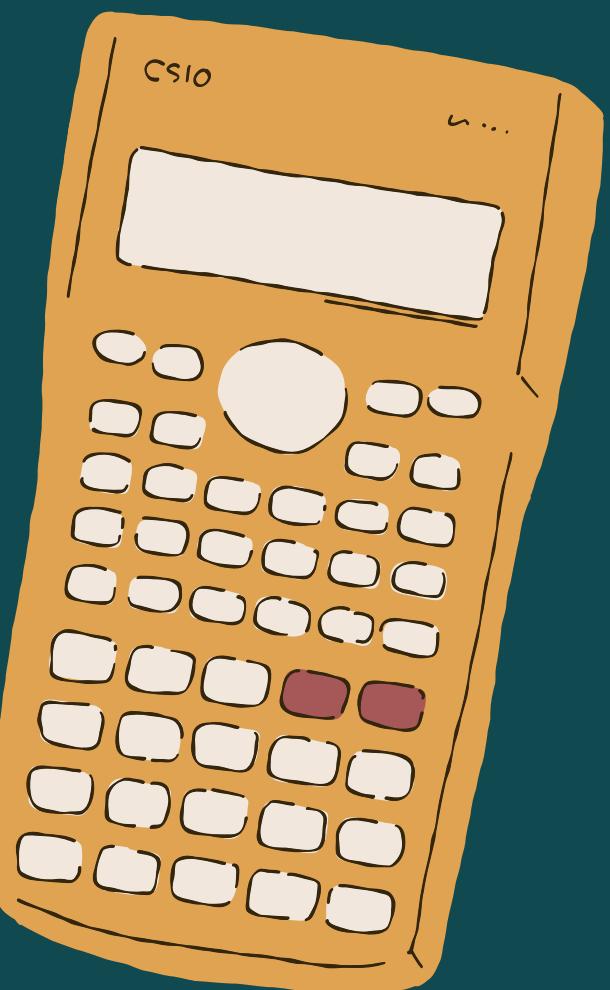
1. Open Project 1
2. Open File Cal.py



Code Structure

3. Create buttons layout by defining method `create_buttons`.
 - Create hover effect on buttons.
4. Define methods `show`, `clear`, `solve`, `calculate_percentage`, `calculate_logarithm`, `handle_keypress` for calculations and print and delete the numeric text.
5. Create and run the class calculator.

1. Open Project 1
2. Open File Cal.py



Calculator



Conclusion

Simplify the following using algebraic notation:

Python makes it easy
to build both CLI and
GUI-based
calculators.



Tkinter is a powerful
library for simple
GUI applications.



Thank you!

Any Questions?