Python Calculator using Tkinter

A sleek desktop calculator built with Python's Tkinter library.

It offers a user-friendly GUI with essential arithmetic operations.

M **by Muktadir molla**

Core Features Overview

Responsive Interface

Dynamic button layout with smooth hover effects.

Basic Operations

- Addition, subtraction
- Multiplication, division
- Percentage calculations

Input & Error Handling

Input Handling

Real-time expression display with clear and backspace functions.

Error Handling

Graceful error messages for invalid inputs prevent crashes.

Technical Foundations

Programming Language

Python 3.x, leveraging its simplicity and versatility

GUI Toolkit

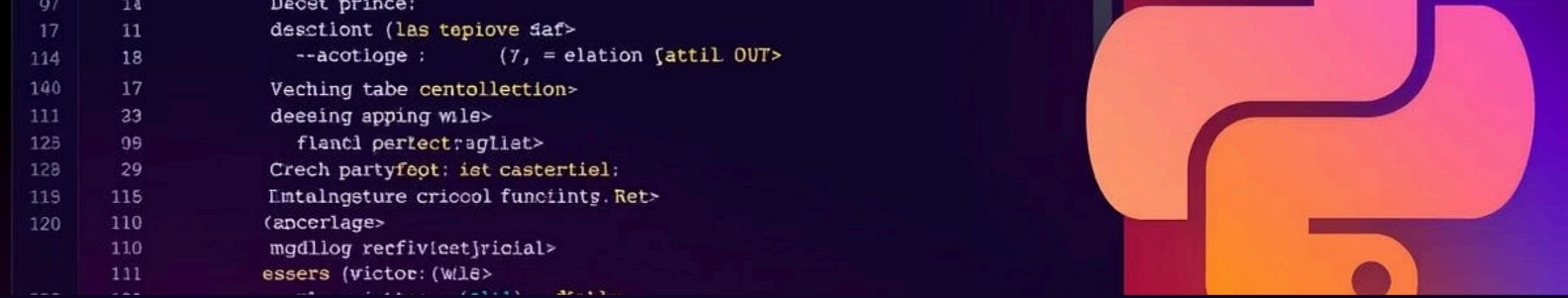
Tkinter for native-look and responsive desktop apps

Design Patterns

Event-driven programming with lambda functions

Code Structure

Modular design separates UI and logic components



Modular Code Architecture

1

UI Components

Separate functions handle button layout and display

2

Logic Handling

Calculation functions process expressions independently

Planned Scientific Mode

Add complex functions

Trigonometry, logarithms, exponentials

Expand button set

Include scientific notation and constants

Maintain ease of use

Keep interface intuitive despite added complexity

Enhancing Usability Features

Keyboard Support

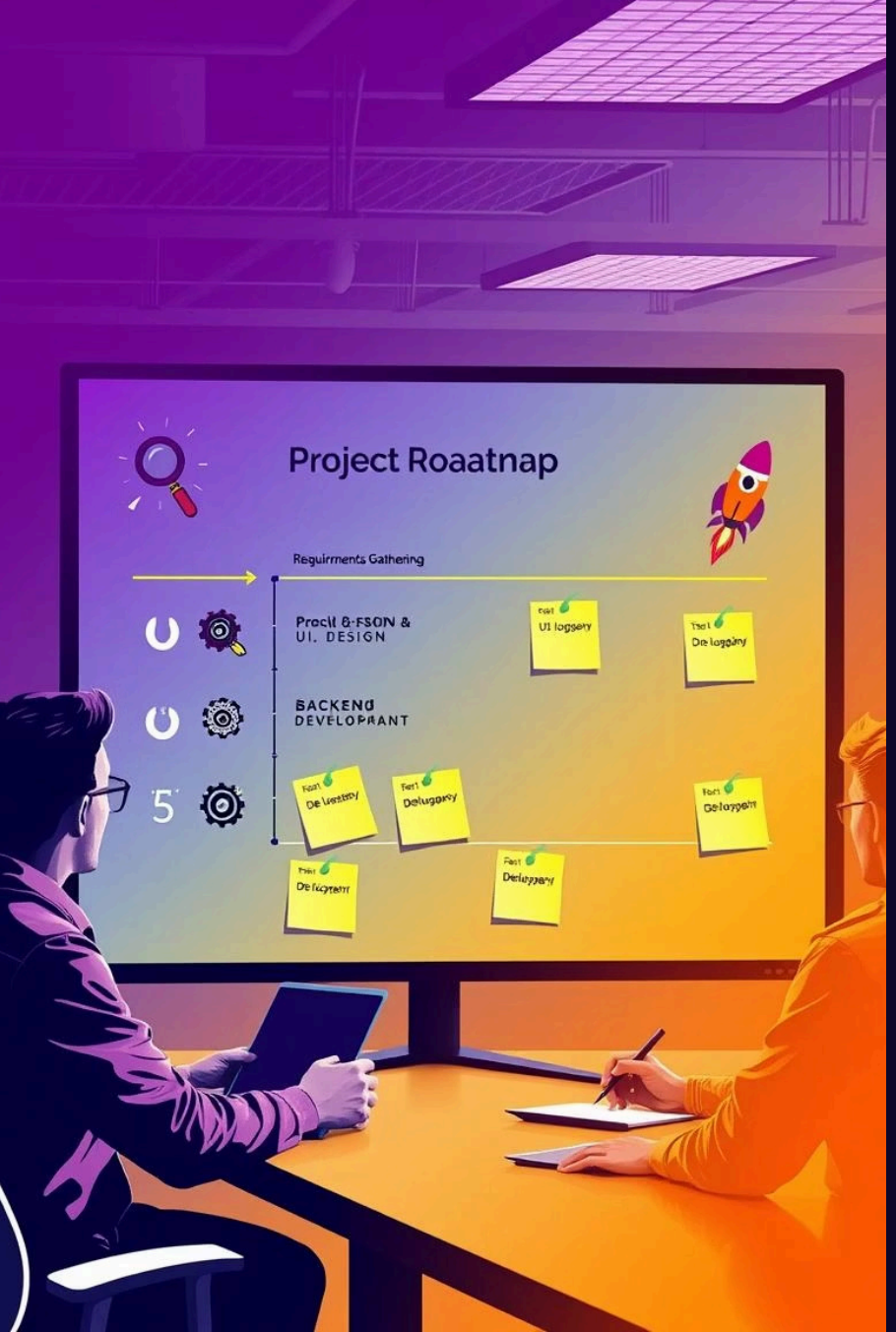
Enable full input via keyboard shortcuts

Theming

Allow users to customize colors and fonts

History Tracking

Record and display past calculations for reference



Summary & Next Steps

1 Current Status

Basic calculator with responsive design and error handling

2 Upcoming Features

Scientific mode, keyboard input, theming, and history

3 Development Approach

Modular, maintainable codebase with event-driven patterns

THANK YOU