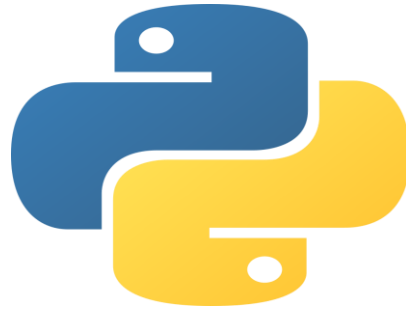# Personal To-Do List Application

Presented by,

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Project Overview

- Local CLI app with JSON persistence
- Add/View/Edit/Complete/Delete tasks
- Categories: Work, Personal, Urgent, Other

Objectives

- Practice Python basics, file handling
- Design clean CLI UX
- Ensure data persistence without DB

Features

- Add tasks with title & description
- Mark tasks completed
- Delete tasks
- Categorize tasks

Data Persistence

- Stored in tasks.json
- Saved after every change
- Robust loading with defaults

Project Structure

- todo.py – main logic
- tasks.json – data file
- README.md – instructions

Task Class

- Fields: title, description, category, completed
- Method: mark_completed()

Core Functions

- save_tasks(tasks)
- load_tasks()
- list/add/edit/delete/complete helpers

CLI Menu Flow

- Main menu (Add/View/Edit/Complete/Delete/Exit)
- View submenu (All/Category/Pending/Completed)

Validation & UX

- Title required
- Free-text or predefined categories
- Autosave & confirmations

How to Run

- `python todo.py`
- Data saved to `tasks.json`

Demo Walkthrough

- Add -> View -> Edit -> Complete -> Delete
- Filters by category/status

Edge Cases

- Empty list handling
- Invalid inputs
- Graceful KeyboardInterrupt

Extensibility

- Due dates & priorities
- Search & sorting
- Export/Import CSV

Testing Tips

- Try adding multiple categories
- Mark and filter completed tasks
- Verify JSON written

Conclusion

- Meets assignment requirements
- Simple to deploy & use