

Introduction to Software Development Final Project: Command-Line Application

1. Project Overview

The goal of this project is to apply all the concepts learned throughout the module to build a complete, interactive command-line application from scratch. You will design, implement, test, and document a program of your choice from the list of approved options below.

2. Project Options (Choose One)

- **A) Contact Management System:** An application to add, view, search, and delete contacts.
- **B) To-Do List Manager:** An application to add tasks with priorities, mark tasks as complete, and view all tasks.
- **C) Simple Inventory System:** An application to add products, update stock levels, and view all products.

3. Core Requirements (Must be met by all projects)

- **Object-Oriented Design:** The core logic must be built around at least one custom class (e.g., `Contact`, `Task`, `Product`).
- **Data Management:** The application must use collections (lists or dictionaries) to store data in memory.
- **User Interface:** A text-based menu that loops until the user chooses to exit. It should guide the user with `print` statements and get their input with the `input()` function.
- **Error Handling:** The application must gracefully handle invalid user input (e.g., entering text where a number is expected).
- **Unit Tests:** You must provide at least three meaningful unit tests for your core class/functions.
- **Version Control:** The entire project must be tracked using Git and submitted as a link to a GitHub repository.

4. Submission Checklist

1. A link to your public GitHub repository containing all source code.
2. A `README.md` file in the repository that explains what your project does and how to run it.
3. All code must be well-commented and follow a consistent style.
4. The repository must have a clear commit history.

Good luck!