

1. Project Overview

Develop a Tkinter-based GUI application for a Library Management System where users can borrow books and an admin can manage borrowing records. The project will be divided into multiple modules, each handling different aspects of the system.

2. Solution Outline

This application will be implemented in Python using the Tkinter library for GUI and CSV format for data management and memory. Various features will be implemented using different classes. Each class will be implemented separately and then integrated finally using the main class and then debugged. Additional features will be added and tested.

3. Classes used

- UIComponents: To manage all Tkinter UI elements and windows
- FileManager: To save data into csv format and retrieve data
- Main: To control the overall flow of the program and use the other classes
- Book: To maintain the status of each book as borrowed/ in library, etc

4. Technology stack

- Python
- Tkinter

5. Team structure:

1. Pragun K Kirani(BT2024176):
 - File: gui.py
 - Responsibilities: GUI and Tkinter related
 - Class: UIComponents
2. H Sanjay(BT2024192):
 - File: main.py
 - Responsibilities: Main file and control flow, integration of the remaining classes
 - Class: Main

3. Romir Gupta(BT2024195):

- File: book.py
- Responsibilities: Book class implementation and related book status
- Class: Book

4. Sachin Nain(BT2024201):

- File: fileHandling.py
- Responsibilities: CSV data handling and data storage
- Class: DataHandling

6.Milestones and Timeline

- Initiation of Project Proposal – 21st September 2024
- Initial Project Planning – 22nd September 2024
- Submission of Project Proposal – 25th September 2024
- Initial Test run – 13th October 2024
- Final Submission – TBD

7. Collaboration and Communication

- GitHub
- GMeet
- Whatsapp