

Project Rules

- Copying projects (1 & 2) is not recommended (including from the internet).
- Identical or similar projects (1 & 2) will not be graded (both source code and copy).
- Projects copied from the internet will not be graded.

Project 1 - 40%

- Presentation deadline: 15/11/2023 - mandatory presence
- Upload: source code available on GitHub with access granted to the instructor @DanutzPop
- Source code submission deadline: 12/11/2023 - 80/90% of the project must be completed
- Video-recorded presentation and upload by 15/11/2023 on GitHub.
- No other method of document/project submission will be accepted.

Project 2 - 60%

- Presentation deadline: 10/01/2024 - mandatory presence
- Upload: source code available on GitHub with access granted to the instructor @DanutzPop
- Source code submission deadline: 07/01/2024 - 80/90% of the project must be completed
- Video-recorded presentation and upload by 10/01/2024 on GitHub.
- No other method of document/project submission will be accepted.

****Project 1****

Managing Financial Data: Create an application that allows the user to record and manage simple financial data, such as transactions, income, and expenses.

1. User Interface: Implement a simple user interface that enables adding and viewing transactions. You can use input and output functions to interact with the user. This can be a command-line program or a graphical user interface (recommended). **15 points / 25 points**
2. Data Structures for Transactions: Define data structures to store information about transactions, such as date, description, amount, and type (income or expense). **10 points**
3. Basic Accounting Features: Implement functions that allow the user to record new transactions, calculate the account balance, and display a list of previous transactions. **10 points**
4. Simple Financial Reporting: Implement a function that generates a simple financial report, such as a summary of income and expenses for a specific period. **10 points**
5. Data Manipulation in Files: Allow the user to save and load financial data in files to preserve it between sessions. **10 points**
6. Input Data Validation: Ensure that user-entered data is properly validated to prevent the input of incorrect data. **10 points**

7. Documentation and Comments: Document the code and add comments to make it easier to understand. **15 points**

8. Testing: Test the project to ensure it functions correctly and that financial calculations are accurate. **10 points**

9. Error Handling: Handle errors and exceptions properly to prevent application crashes due to incorrect input. **10 points**

10. Compliance with Specific Project Requirements: Ensure that the project meets the specific requirements set by the instructor.

11. Presentation and Explanations: Ensure that you can explain and present the project to the instructor or peers, highlighting key features and design decisions.

****Project 2****

An accounting project involves managing financial and accounting data, performing financial calculations, generating reports, and ensuring data security. Here are some common requirements for such a project:

1. User Interface: Develop a user interface (UI) to allow users to input and view financial data. This can be a command-line program or a graphical user interface (recommended). **10 points /20 points**

2. Account Management: Allow users to create, edit, and delete financial accounts, such as savings accounts, checking accounts, credit accounts, etc. **10 points**

3. Transaction Recording: Implement functionality to record financial transactions, including deposits, withdrawals, transfers, payments, and more. **10 points**

4. Balance Calculation: Automatically calculate account balances based on recorded transactions. **10 points**

5. Financial Reporting: Provide options for generating financial reports, such as account statements, balances, transaction registers, and expense reports. **5 points**

6. Security and Authentication: Ensure that financial data is protected, and users must authenticate to access the accounting system. **5 points**

7. Customer Data Management: Allow users to input and manage information about customers or entities with whom they do business. **5 points**

8. Data Export and Import: Offer options for exporting and importing financial data in and out of various file formats (e.g., CSV, Excel, PDF export). **5 points**

9. Input Data Validation: Perform checks on user-entered data to prevent errors or incorrect data. **10 points**

10. Error and Exception Handling: Implement a system for proper error handling and handling exceptional situations that may arise during the accounting process. **15 points**

11. Audit and Logging: Maintain an activity log and provide audit capabilities to track changes and activities related to accounts. **5 points**

12. Documentation and Comments: Document the code (PDF) and add comments to make it easier to understand. **10 points**

13. Compliance with Specific Project Requirements: Ensure that the project meets the specific requirements set by the instructor.

14. Presentation and Explanations: Ensure that you can explain and present the project to the instructor or peers, highlighting key features and design decisions.