

ASSIGNMENT A1

1. Objective

The objective of this assignment is to allow students to become familiar with design patterns, layered architecture, SOLID principles and clean code principles.

2. Application Description

Use JAVA API to design and implement an application for the front desk employees of a bank. The application should have two types of users (a regular user represented by the front desk employee and an administrator user) which have to provide a username and a password in order to use the application.

The regular user can perform the following operations:

- Add/update/view client information (name, identity card number, personal numerical code, address, etc.).
- Create/update/delete/view client account (account information: identification number, type, amount of money, date of creation).
- Transfer money between accounts.
- Process utilities bills.

The administrator user can perform the following operations:

- CRUD on employees' information.
- Generate reports for a particular period containing the activities performed by an employee.

3. Application Constraints

- The data will be stored in a database. Use the Layers architectural pattern to organize your application
- All the inputs of the application will be validated against invalid data before submitting the data and saving it in the database.

4. Requirements

- Implement and test the application
- Everything through www.github.com

5. Deliverables

- Implementation source files
- repository

6. References

https://github.com/AlexandruGH/AC_Inginerie_Software_2020-2021/

[21/](#)

Oh, and Google.