

Banking App - StudentChest -

Alecsia Costina Coman - group 30423

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1.App description

Introducing "StudentChest" - Your Ultimate Banking Application for Students!

Are you a student in search of the perfect banking application, one that mirrors the functionalities of BT Pay and offers precisely the features you need, no more, no less? Look no further than "StudentChest" - a tailor-made banking app designed exclusively for students.

This banking application is developed with JavaFX and SceneBuilder, integrated with a MySQL database for efficient data management.

FEATURES:

• LOGIN & SIGN IN

With a user-friendly interface, the app ensures a personalized and secure banking experience. Starting with a login form, users must input their account credentials - username and password - having the possibility to save this information using the "Remember me" checkbox feature. For individuals without an existing account, the creation process is done by accessing the sign in form. This requires the completion of various fields, including first name, last name, phone, email, CNP, address, username, password and a PIN for the card. Upon successful authentication, users gain access to their financial activities within the app.

• UPDATE PROFILE DATA

The user button located in the upper-left corner of the app offers the option to update personal information as desired. It allows the user to edit details such as first name, last name, phone number, or email.

- **TRANSFERS**

"StudentChest" allows the user to effortlessly make transfers - send or request - with other individuals. There is also the possibility of deleting a request to/from another user, by accessing the specific label and confirming its deletion. Two separate histories are available—one for transfers among app users and another for transactions involving various entities such as shops or online purchases. All this information is sourced directly from the database.

- **CARD DETAILS AND SETTINGS**

The app offers a unique 15-second preview of card details, including CVV and card number. The customer can also modify card settings, by changing the card name, adjusting transaction limits and even block or unblock the card as needed.

- **WITHDRAW AND IBAN/ALIAS PAY TRANSFERS**

Planning to withdraw some cash? "StudentChest" has a straightforward withdrawal feature. Choose the desired withdrawal amount and proceed by either confirming or canceling the transaction.

The application also facilitates IBAN or Alias Pay transfers. Users can input the amount, payment details, and the beneficiary's IBAN and name, or its phone number, depending on the chosen transfer type.

2.UML Diagram

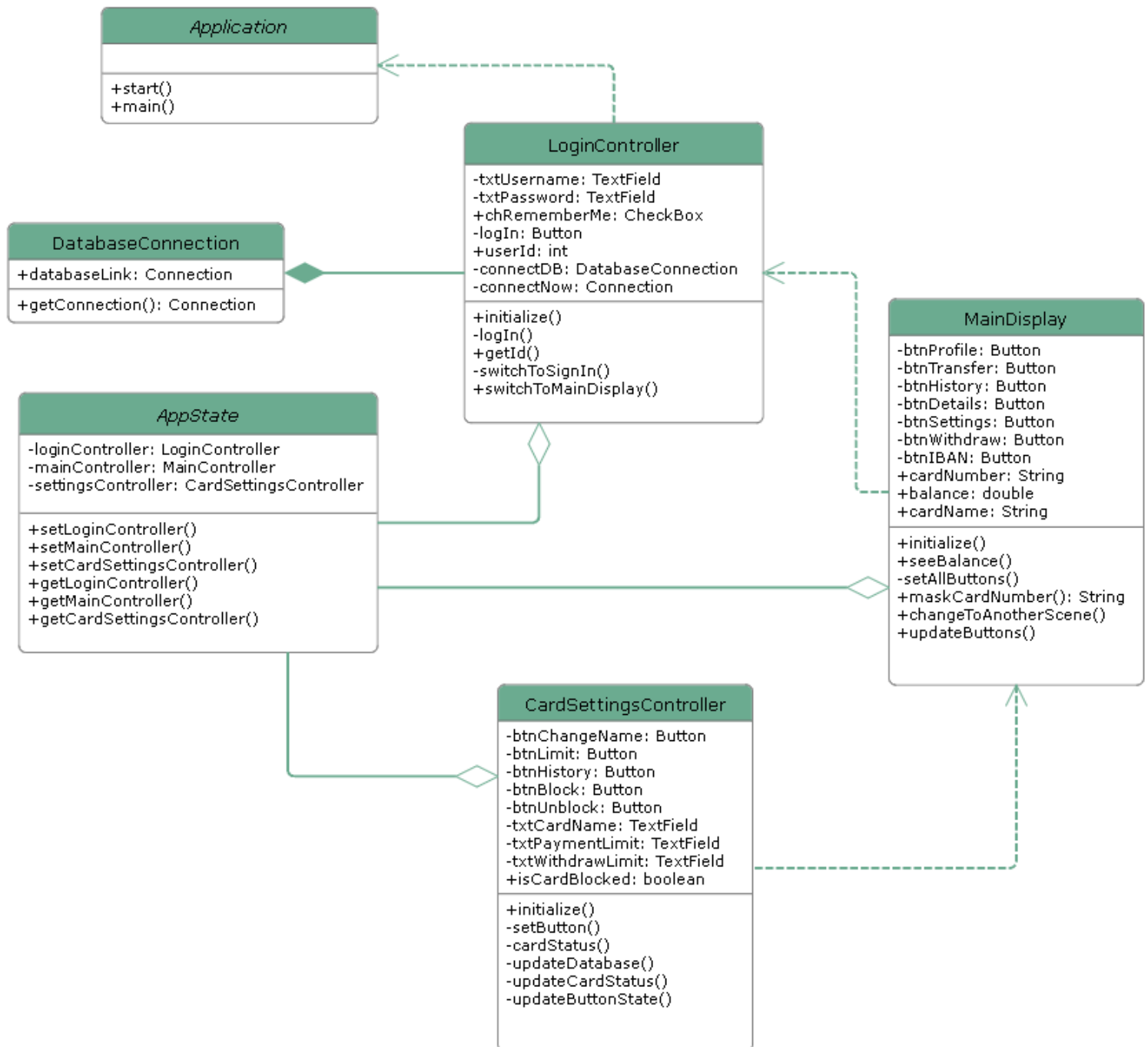
The central class, **Application**, serves as the entry point to the program and initializes the login view by referencing the **LoginController**. There exists a dependency relationship between **Application** and **LoginController**, signifying that the latter is reliant on the former for proper instantiation.

The **MainDisplayController** class, responsible for managing the main display of the application, establishes dependency relationships with other controller classes such as **CardSettingsController**, **TransferController**, **SendMoneyController**, and more.

The **DatabaseConnection** class is instrumental in establishing a connection with the MySQL database. It provides the necessary database link through the `getConnection()` method.

The **AppState** class plays a pivotal role in maintaining the current state of the application. It is designed to be a singleton, allowing it to store and retrieve instances of specific

controllers. It establishes an aggregation relationship with those classes.



3.Future Developments

- Multi-factor Authentication
- Notifications
- Modern design
- Budgeting and Expense Tracking
- Currency Exchange