EPOKA ATM MACHINE

1. Project title

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2. Project Description

"Epoka ATM Machine" is a project designed for all people who perform their work in the reality of an ATM of a machine. The project manager is the user's computerized financial accounts, making them simple, fast and efficient.

The main features and attributes of the Epoka ATM Machine project are:

1. Login and authentication: Users can login and authenticate securely for various methods such as bank cards, PIN codes.

2. How to use: The ATM machine is designed to be intuitive and easy to use. Users can follow the possible steps and get work done in a quick and easy way.

3. Extensive financial services: "Epoka ATM Machine" offers a game such as extensive, various deposits, transfers, balance consultation, and transaction history display.

4. Security and data protection: Secure design and data protection are top priorities. Users' personal and financial information is stored and transmitted securely and salted to illegal access.

"Epoka ATM Machine" is an innovative project that aims to create the user experience of performing financial transactions. By providing a safe and efficient platform, the project aims to contribute to the computerization of the transaction process and to providing a good system for managing personal finances.

3. User Guide

1. Creating an Account:

To create an account, click on the "Sign Up" button.
The system will generate a unique card number for you automatically.
Please make a note of the card number as it will be required for account registration.
Enter your personal information such as name, surname, etc., in the provided fields.
Click on the "Register" button to complete the account creation process.

2. Login:

   On the main screen, enter your Card number and Pin code in the designated field.
   Click on the "Log In" button to proceed.
   If the card number and pin code is valid, you will be granted access to your account.

3. Account Balance:

   Upon logging in, you will initially have a balance of $0.
   This represents the virtual currency available for transactions.

4. Deposit Funds:

   To deposit funds, select the "Deposit" option from the menu.
   Enter the desired amount you wish to deposit.
   Click on the "Deposit" button to complete the deposit transaction.
   The deposited amount will be added to your account balance.

5. Withdrawal Funds:

   To withdraw funds, choose the "Withdraw" option from the menu.
   Enter the amount you want to withdraw.
   Click on the "Withdraw" button to complete the withdrawal transaction.
   The withdrawn amount will be deducted from your account balance.

6. Transaction History:

   The system keeps a record of all transactions performed.
   To view your transaction history, select the "Transaction History" option.
   A list of your previous transactions will be displayed, including details such as date, type (deposit/withdrawal), and amount.

7. Data Storage:

   All user account information and transaction data are securely stored in the Epoka ATM Machine database.
   This ensures the integrity and privacy of your personal and financial information.

Note: The Epoka ATM Machine provides a virtual environment for practicing and simulating transactions. The virtual currency used within the system has no real-world value.

4. Project Structure

"Epoka ATM Machine" is a project created in software that serves as a simulation of ATM machines for making financial expenses. Here is an overview of the project structure:

ATM application:

Core Application: Consists of the core of the project, which provides the graphical interface and functionality for users to perform financial calculations.

Business logic: Includes algorithms and programming rules that allow identification, authentication, user registration obligations, and data related to accounts and transactions.

Database: Used to calculate data account information, records and history information. This component considers data securely and finding and processing relevant information for users.

This project aims to provide a realistic job of using ATM machines and equipment and the efficiency of performing some financial transactions. The application can be installed on various operating systems and provides a safe and user-friendly environment.

5. Testing and Verification

Testing and verification are an integral part of the Epoka ATM Machine project development to ensure that the application works properly and to identify and correct any potential problems. Here are some aspects of testing and verification to consider:

1. Unit Testing (Unit Testing): This testing phase focuses on verifying the operation of individual modules of the ATM application. Individual components such as authentication, cryptography, database connectivity, and other important functionality are tested to ensure they work properly.

2. Integration Testing: This type of testing focuses on verifying the interoperability and integrity between the various modules of the ATM application. Important usage scenarios are tested to identify and address any connectivity and communication issues between modules.

3. Performance Testing: This testing phase aims to verify the performance of the ATM application by simulating real usage situations. Response times, system load, and overall performance are tested to ensure that the application works efficiently and smoothly under real-world usage conditions.

4. Security Testing: Security is a critical aspect of the ATM application. Security layers such as authentication, authorization and data protection are tested. This testing aims to identify any potential security flaws and address them to ensure that user data and transactions are protected.

5. User Acceptance Testing: In this phase, the ATM application is tested by real users to evaluate their user experience and ensure that the application meets their expectations. User feedback is used to make necessary improvements and corrections.

ATM application testing and verification are collaborative and iterative processes that require constant focus and dedication to ensure the smooth operation and high quality of the application for users.

6. SOURCES

1. Official Microsoft documentation:

   - Visual Studio Documentation: https://docs.microsoft.com/en-us/visualstudio/
   - C# Documentation: https://docs.microsoft.com/en-us/dotnet/csharp/
   - SQL Server Documentation: https://docs.microsoft.com/en-us/sql/sql-server/

2. Windows Forms and C# Guides and Books:

   - Windows Forms Programming in C# by Chris Sells and Michael Weinhardt
   - "C# 9.0 in a Nutshell: The Definitive Reference" by Joseph Albahari and Ben Albahari

3. SQL Server Guides and Books:

   - "Microsoft SQL Server 2019: A Beginner's Guide" by Dusan Petkovic
   - "Pro SQL Server 2019 Administration" by Peter Carter and Mohamed Sharaf

4. Forums and developer communities:

- Stack Overflow: https://stackoverflow.com/
- MSDN C# Developer Forum: https://social.msdn.microsoft.com/Forums/en-US/home?forum=csharpgeneral
- Microsoft SQL Server Forum: https://social.msdn.microsoft.com/Forums/en-US/home?forum=sqldatabaseengine