Namespace ATM.Domain

Classes

ATM

Represents an Automated Teller Machine (ATM) that executes commands.

Account

Represents a bank account within the ATM system.

DepositCommand

Represents a deposit operation command for an account.

WithdrawCommand

Command that performs a withdrawal operation on an account.

Interfaces

ICommand

Defines a command interface with an execution method.

Class ATM

Namespace: <u>ATM.Domain</u>
Assembly: ATM.Domain.dll

Represents an Automated Teller Machine (ATM) that executes commands.

public class ATM

Inheritance

<u>object</u>♂ ← ATM

Inherited Members

 $\underline{object.Equals(object)} \ \ \ \ \ \underline{object.Equals(object, object)} \ \ \ \ \ \ \underline{object.GetHashCode()} \ \ \ \ \ \underline{object.GetType()} \ \ \ \ \ \ \underline{object.MemberwiseClone()} \ \ \ \ \ \underline{object.ReferenceEquals(object, object)} \ \ \ \ \ \underline{object.ToString()} \ \ \ \ \underline{object.ToString()} \ \ \ \ \ \underline{object.ToString()} \ \ \ \underline{object.ToString()} \ \ \ \underline{object.ToString()} \ \ \underline{objec$

Constructors

ATM(ICommand)

Initializes a new instance of the ATM class with a specified command.

public ATM(ICommand command)

Parameters

command | Command

The command to be executed by the ATM.

Methods

Action()

Executes the assigned command.

public void Action()

Class Account

Namespace: <u>ATM.Domain</u>
Assembly: ATM.Domain.dll

Represents a bank account within the ATM system.

```
public class Account
```

Inheritance

<u>object</u>

✓ Account

Inherited Members

Fields

MAX_INPUT_AMOUNT

The maximum amount allowed for a single deposit.

```
public const decimal MAX_INPUT_AMOUNT = 10000
```

Field Value

decimal **♂**

Properties

AccountBalance

Gets or sets the current balance of the account.

```
public decimal AccountBalance { get; set; }
```

Property Value

decimal **♂**

AccountNumber

Gets or sets the unique number identifying the account.

```
public int AccountNumber { get; set; }
```

Property Value

<u>int</u>♂

Methods

Deposit(decimal)

Deposits a specified amount into the account balance.

```
public void Deposit(decimal amount)
```

Parameters

amount <u>decimal</u> □

The amount to deposit.

Exceptions

<u>ArgumentException</u> □

Thrown when the amount exceeds the maximum allowed deposit.

Withdraw(decimal)

Withdraws a specified amount from the account balance.

public void Withdraw(decimal amount)

Parameters

amount <u>decimal</u>♂

The amount to withdraw.

Exceptions

<u>ArgumentException</u> ☑

Thrown when the amount exceeds the current balance.

Class DepositCommand

Namespace: <u>ATM.Domain</u>
Assembly: ATM.Domain.dll

Represents a deposit operation command for an account.

public class DepositCommand : ICommand

Inheritance

<u>object</u> □ ← DepositCommand

Implements

ICommand

Inherited Members

 $\underline{object.Equals(object)} \ \ \ \ \ \underline{object.Equals(object, object)} \ \ \ \ \ \underline{object.MemberwiseClone()} \ \ \ \ \ \underline{object.ReferenceEquals(object, object)} \ \ \ \ \underline{object.ToString()} \ \ \ \underline{object.ToString()} \ \ \ \underline{object.ToString()} \ \ \ \underline{object.ToString()} \ \ \underline{object.T$

Constructors

DepositCommand(Account, decimal)

Initializes a new instance of the **DepositCommand** class.

public DepositCommand(Account account, decimal amount)

Parameters

account Account

The account where the deposit will be made.

amount decimal♂

The amount to deposit.

Methods

Execute()

Executes the deposit operation on the associated account.

public void Execute()

Interface ICommand

Namespace: <u>ATM.Domain</u>
Assembly: ATM.Domain.dll

Defines a command interface with an execution method.

public interface ICommand

Methods

Execute()

Executes the command's action.

void Execute()

Class WithdrawCommand

Namespace: <u>ATM.Domain</u>
Assembly: ATM.Domain.dll

Command that performs a withdrawal operation on an account.

public class WithdrawCommand : ICommand

Inheritance

<u>object</u> < WithdrawCommand

Implements

ICommand

Inherited Members

 $\underline{object.Equals(object)} \ \ \ \ \ \underline{object.Equals(object, object)} \ \ \ \ \ \underline{object.MemberwiseClone()} \ \ \ \ \ \underline{object.ReferenceEquals(object, object)} \ \ \ \ \underline{object.ToString()} \ \ \ \underline{object.ToString()} \ \ \ \underline{object.ToString()} \ \ \ \underline{object.ToString()} \ \ \underline{object.T$

Constructors

WithdrawCommand(Account, decimal)

Initializes a new instance of the WithdrawCommand class.

public WithdrawCommand(Account account, decimal amount)

Parameters

account Account

The account from which to withdraw.

amount decimal♂

The amount to withdraw.

Methods

Execute()

Executes the withdrawal command.

public void Execute()

Namespace ATM.Domain.Tests

Classes

<u>ATMTests</u>

Contains unit tests for the ATM operations using deposit and withdraw commands.

Class ATMTests

Namespace: <u>ATM.Domain.Tests</u>
Assembly: ATM.Domain.Tests.dll

Contains unit tests for the <u>ATM</u> operations using deposit and withdraw commands.

```
public class ATMTests
```

Inheritance

<u>object</u> < ← ATMTests

Inherited Members

<u>object.Equals(object)</u> , <u>object.Equals(object, object)</u> , <u>object.GetHashCode()</u> , <u>object.GetType()</u> , <u>object.MemberwiseClone()</u> , <u>object.ReferenceEquals(object, object)</u> , <u>object.ToString()</u>

Methods

GivenAccountAndDeposit_ThenExecute_ReturnsCorrectAmount()

Tests that depositing into an account updates the balance correctly.

```
[Test]
public void GivenAccountAndDeposit_ThenExecute_ReturnsCorrectAmount()
```

GivenAccountAndWithdraw_ThenExecute_ReturnsCorrectAmount()

Tests that withdrawing from an account updates the balance correctly.

```
[Test]
public void GivenAccountAndWithdraw_ThenExecute_ReturnsCorrectAmount()
```