

Package Summary

Class Summary

• Class	Description
<u>AD</u>	This class creates the admin object in the system, which extends the People class.
<u>BankAutomated</u>	BankAutomated class handles all the logic and authentication in the system using various methods.
<u>BankSystem</u>	Main class, it contains the main method and initializes the system to its Login Page.
<u>BankTransferPage</u>	This class is a graphical implementation of the Bank Transfer page where customers would be able to make bank transfers (either from chequing or savings) to any user if they have their account number.
<u>CA</u>	Class for the customer object.
<u>ChequingHistoryPage</u>	This class is the graphical implementation of the customer's chequing account transaction history. It displays the last 6 transactions the customer did with their chequing account.
<u>CSR</u>	Class for the customer service representative (CSR) object.
<u>ETransferPage</u>	This class is a graphical implementation of the E-Transfer page where customers would be able to make e-transfers (either from chequing or savings) to any user if they have their email.
<u>FindUsPage</u>	This class is the graphical implementation of the Find Us page, where customers are able to see the location of our different branches across Canada and the US by clicking on the pin icons on the page.
<u>ForgotPage</u>	This class is a graphical implementation of the Forgot Password Page.
<u>HomePage</u>	This class is the graphical implementation for the customer's homepage, which is displayed when the customer logs in or when they leave the homepage and select to go back to it.
<u>LoginPage</u>	This class is the graphical implementation of the Login page.
<u>MakeReportPage</u>	This class is the graphical implementation of the make report page.
<u>MT</u>	Class for maintenance team object.
<u>NotificationSettingPage</u>	This class is the graphical implementation of the notification settings page.
<u>People</u>	This class is the parent class for: (1) CA, (2) AD, (3) MT, and (4) CSR
<u>PrivacySettingPage</u>	This class is the graphical implementation of the Privacy Setting Page.
<u>ProfileSettingPage</u>	This class is the graphical implementation of the Profile Settings Page.
<u>RegisterPage</u>	This class is the graphical implementation of the Register/Sign-up page.
<u>Report</u>	This class creates the Report object that contains all the details of any suspicious activity report that the customer makes
<u>Request</u>	This class creates the different request objects depending on the different types of request the customer makes.
<u>RequestsPage</u>	This class is the graphical implementation of the make Requests page.
<u>SavingsHistoryPage</u>	This class is the graphical implementation of the customer's savings account transaction history. It displays the last 6 transactions the customer did with their savings account.
<u>Transaction</u>	This class creates a transaction object which is used whenever the customer transfer money/make a payment.
<u>TransferFundsPage</u>	This class is the graphical implementation of the Transfer Funds Page.

Hierarchy For Package

Class Hierarchy

- java.lang.Object
 - [BankAutomated](#)
 - [BankSystem](#)
 - java.awt.Component (implements java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable)
 - java.awt.Container
 - java.awt.Window (implements javax.accessibility.Accessible)
 - java.awt.Frame (implements java.awt.MenuContainer)
 - javax.swing.JFrame (implements javax.accessibility.Accessible, javax.swing.RootPaneContainer, javax.swing.WindowConstants)
 - [BankTransferPage](#) _ (implements java.awt.event.ActionListener)
 - [ChequingHistoryPage](#) _ (implements java.awt.event.ActionListener)
 - [ETransferPage](#) _ (implements java.awt.event.ActionListener)
 - [FindUsPage](#) _ (implements java.awt.event.ActionListener, java.awt.event.MouseListener)
 - [ForgotPage](#) _ (implements java.awt.event.ActionListener)
 - [HomePage](#) _ (implements java.awt.event.ActionListener)
 - [LoginPage](#) _ (implements java.awt.event.ActionListener)
 - [MakeReportPage](#) _ (implements java.awt.event.ActionListener)
 - [NotificationSettingPage](#) _ (implements java.awt.event.ActionListener)
 - [PrivacySettingPage](#) _ (implements java.awt.event.ActionListener)
 - [ProfileSettingPage](#) _ (implements java.awt.event.ActionListener)
 - [RegisterPage](#) _ (implements java.awt.event.ActionListener)
 - [RequestsPage](#) _ (implements java.awt.event.ActionListener)
 - [SavingsHistoryPage](#) _ (implements java.awt.event.ActionListener)
 - [TransferFundsPage](#) _ (implements java.awt.event.ActionListener)
 - [People](#) (implements java.io.Serializable)
 - [AD](#)
 - [CA](#)
 - [CSR](#)
 - [MT](#)
 - [Report](#) (implements java.io.Serializable)
 - [Request](#) (implements java.io.Serializable)
 - [Transaction](#) (implements java.io.Serializable)

Class BankAutomated

- java.lang.Object
- ◦ BankAutomated

-
- public class BankAutomated
extends java.lang.Object

BankAutomated class handles all the logic and authentication in the system using various methods. These methods are called in the graphical implementations of different pages when certain conditions are met, e.g. a button is clicked. All logic and authentication are carried out through this BA, therefore all graphical pages have a BankAutomated object passed into them.

- ◦ **Constructor Summary**

Constructors

Constructor	Description
BankAutomated()	Constructor for the BankAutomated class Creates a few admin AD, MT, and CSR objects and adds them to their respective arraylists.
BankAutomated (boolean ignoredTest)	Constructor for BankAutomated to be used for the TestCase (for the JUnit test cases) This prevents the people.ser file from interfering with the test case results

- **Method Summary**

All Methods [Instance Methods](#) [Concrete Methods](#)

Modifier and Type	Method	Description
	java.util.ArrayList<java.lang.String> addresses()	This method is used to return a list of addresses for the customer to choose from when visiting a branch.
int	bankTransfer (double amount, java.lang.String receiverAcc, CA customer, java.lang.String accountFrom)	This function allows users to transfer money to another user's account using their bank number
void	changePassword (CA user, java.lang.String newPassword)	Changes the password of a user Clears the People.ser file NOTE: This will delete all
void	clearPeopleFile()	customer accounts that are saved in the system (i.e., any registered customer)
CA	createAccount (java.lang.String firstName, java.lang.String lastName,	This function creates a new

	<pre> java.lang.String phoneNum, java.lang.String address, java.lang.String gender, java.lang.String dob, java.lang.String email, java.lang.String password, java.lang.String cardNum, java.lang.String cardExpiry, java.lang.String cvv) </pre>	customer account, and returns the new account if it was created successfully.
CA	<pre> createAccountTest (java.lang.String firstName, java.lang.String lastName, java.lang.String phoneNum, java.lang.String address, java.lang.String gender, java.lang.String dob, java.lang.String email, java.lang.String password, java.lang.String cardExpiry, java.lang.String cvv) </pre>	This function does the same as the previous one; however, it is used for the stressTest testing in order to create a million customer objects at once.
int	<pre> etransfer(double amount, java.lang.String receiverEmail, CA customer, java.lang.String accountFrom) </pre>	Allows users to transfer money to other users of the bank (if they have an account)
boolean	<pre> existingEmail(java.lang.String email) </pre>	Checks if the email is already in use
CA	<pre> loginAccount(java.lang.String email, java.lang.String password) </pre>	Creates a new customer account
void	<pre> logout() </pre>	This method is used for logout.
Report	<pre> makeReport(CA customer, java.lang.String description) </pre>	Adds a report to the customer's report list and the admin's report list
void	<pre> makeRequest(CA customer, java.lang.String type, java.lang.String str) </pre>	This function allows a customer to make a request.
boolean	<pre> onlyNumeric(java.lang.String str) </pre>	Checks if the string contains numbers only
boolean	<pre> onlyNumericDouble(java.lang.String str) </pre>	Checks if the string contains numbers only (allows up to one decimal point for doubles)
int	<pre> transferFunds(double transferAmount, java.lang.String fromAccount, CA customer) </pre>	Allows users to transfer money between their chequing and savings accounts
boolean	<pre> validBankNumber (java.lang.String bankNumber) </pre>	Checks if the bank number is valid

boolean	<u>validCard</u> (java.lang.String cardNum)	Checks if the credit card number is valid
boolean	<u>validCardExpiry</u> (java.lang.String expiryDate)	Checks if the card is expired and valid
boolean	<u>validCVV</u> (java.lang.String cvv)	Checks if the ccv is valid
boolean	<u>validDOB</u> (java.lang.String month, java.lang.String day, java.lang.String year)	Checks if the date of birth is valid
boolean	<u>validEmail</u> (java.lang.String email)	Checks if the email is valid
boolean	<u>validPassword</u> (java.lang.String password)	Checks if the password is valid

- **Methods inherited from class java.lang.Object**

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

- **Constructor Detail**

- **BankAutomated**

```
public BankAutomated(boolean ignoredTest)
```

Constructor for BankAutomated to be used for the TestCase (for the JUnit test cases) This prevents the people.ser file from interfering with the test case results

Parameters:

ignoredTest - a boolean to allow the overloading of the constructor

- **BankAutomated**

```
public BankAutomated()
```

Constructor for the BankAutomated class Creates a few admin AD, MT, and CSR objects and adds them to their respective arraylists. people.ser file is opened and any objects stored in it are loaded as well.

- **Method Detail**

- **clearPeopleFile**

```
public void clearPeopleFile()
```

Clears the People.ser file NOTE: This will delete all customer accounts that are saved in the system (i.e., any registered customer)

- **validCardExpiry**

```
public boolean validCardExpiry(java.lang.String expiryDate)
```

Checks if the card is expired and valid

Parameters:

expiryDate - The expiry date of the card

Returns:
boolean True if the card is expired, false otherwise

■ **validBankNumber**

```
public boolean validBankNumber(java.lang.String bankNumber)
```

Checks if the bank number is valid

Parameters:
bankNumber - The bank account number of the customer

Returns:
True if the bank account number is valid

■ **changePassword**

```
public void changePassword(CA user,  
                           java.lang.String newPassword)
```

Changes the password of a user

Parameters:
user - The user to change the password of
newPassword - The new password of the user

■ **validEmail**

```
public boolean validEmail(java.lang.String email)
```

Checks if the email is valid

Parameters:
email - The email to check

Returns:
true if the email is valid, false otherwise

■ **existingEmail**

```
public boolean existingEmail(java.lang.String email)
```

Checks if the email is already in use

Parameters:
email - The email to check

Returns:
true if the email is already in use, false otherwise

■ **validPassword**

```
public boolean validPassword(java.lang.String password)
```

Checks if the password is valid

Parameters:
password - The password to check

Returns:
true if the password is valid, false otherwise

■ **loginAccount**

```
public CA loginAccount(java.lang.String email,  
                        java.lang.String password)
```

Creates a new customer account

Parameters:

email - The email of the customer

password - The password of the customer

Returns:

CA The customer account if it was created successfully, null otherwise

■ **onlyNumeric**

```
public boolean onlyNumeric(java.lang.String str)
```

Checks if the string contains numbers only

Parameters:

str - The string to check

Returns:

true if the string contains numbers only, false otherwise

■ **onlyNumericDouble**

```
public boolean onlyNumericDouble(java.lang.String str)
```

Checks if the string contains numbers only (allows up to one decimal point for doubles)

Parameters:

str - The string to check

Returns:

true if the string contains numbers only, false otherwise

■ **validCVV**

```
public boolean validCVV(java.lang.String cvv)
```

Checks if the ccv is valid

Parameters:

cvv - The ccv to check

Returns:

true if the ccv is valid, false otherwise

■ **validDOB**

```
public boolean validDOB(java.lang.String month,  
                        java.lang.String day,  
                        java.lang.String year)
```

Checks if the date of birth is valid

Parameters:

month - The month of the date of birth

day - The day of the date of birth

year - The year of the date of birth

Returns:

true if the date of birth is valid, false otherwise

■ **validCard**

```
public boolean validCard(java.lang.String cardNum)
```

Checks if the credit card number is valid

Parameters:

cardNum - The credit card number

Returns:

true if the card number is valid, false otherwise

■ createAccount

```
public CA createAccount(java.lang.String firstName,
                        java.lang.String lastName,
                        java.lang.String phoneNum,
                        java.lang.String address,
                        java.lang.String gender,
                        java.lang.String dob,
                        java.lang.String email,
                        java.lang.String password,
                        java.lang.String cardNum,
                        java.lang.String cardExpiry,
                        java.lang.String cvv)
```

This function creates a new customer account, and returns the new account if it was created successfully. If the account was not created successfully, then it returns null. The account is not created successfully if the email is already in use, if the email is not valid, if the password is not valid, or if the card number is not valid.

Parameters:

firstName - The first name of the customer

lastName - The last name of the customer

phoneNum - The phone number of the customer

address - The address of the customer

gender - Gender of the customer

dob - Date of birth of the customer

email - Email of the customer

password - Password of the customer

cardNum - Card number of the customer

cardExpiry - Expiry date of the card

cvv - CVV of the card

Returns:

CA The new customer account if it was created successfully, null otherwise

■ createAccountTest

```
public CA createAccountTest(java.lang.String firstName,
                            java.lang.String lastName,
                            java.lang.String phoneNum,
                            java.lang.String address,
                            java.lang.String gender,
                            java.lang.String dob,
                            java.lang.String email,
                            java.lang.String password,
                            java.lang.String cardExpiry,
                            java.lang.String cvv)
```

This function does the same as the previous one; however, it is used for the stressTest testing in order to create a million customer objects at once. The function takes in the same parameters except card number, which it sets to the empty string in order to create a million customer objects without having to assign a new card number to all 1,000,000 objects in the stressTest. It is also used in the e-transfer and bank transfer testing to prevent the same issue

Parameters:

firstName - The first name of the customer
lastName - The last name of the customer
phoneNum - The phone number of the customer
address - The address of the customer
gender - Gender of the customer
dob - Date of birth of the customer
email - Email of the customer
password - Password of the customer
cardExpiry - Expiry date of the card
cvv - CVV of the card

Returns:

CA The new customer account if it was created successfully, null otherwise

■ makeReport

```
public Report makeReport(CA customer,  
                        java.lang.String description)
```

Adds a report to the customer's report list and the admin's report list

Parameters:

customer - The customer who made the report
description - The description of the report

Returns:

the report created

■ makeRequest

```
public void makeRequest(CA customer,  
                      java.lang.String type,  
                      java.lang.String str)
```

This function allows a customer to make a request. It returns true if the request was made successfully, and false otherwise. Allowing the customer to make a request about a technical issue, a maintenance issue, or a customer service issue.

Parameters:

customer - The customer who made the request
type - The type of request
str - The details of the request

■ transferFunds

```
public int transferFunds(double transferAmount,  
                       java.lang.String fromAccount,  
                       CA customer)
```

Allows users to transfer money between their chequing and savings accounts

Parameters:

transferAmount - amount of money to transfer
fromAccount - account to transfer money from
customer - customer object

Returns:

0 if transfer is successful, 1 if transfer is unsuccessful, 2 if amount is too small

■ etransfer

```
public int etransfer(double amount,  
                   java.lang.String receiverEmail,
```

```
CA customer,  
java.lang.String accountFrom)
```

Allows users to transfer money to other users of the bank (if they have an account)

Parameters:

- amount - amount of money to transfer
- receiverEmail - email of the receiver
- customer - the customer who is sending the money
- accountFrom - the account the money is being sent from

Returns:

0 if successful, 1 if receiver does not have an account, 2 if insufficient funds, 3 if receiver is not in BCS, 4 if amount is greater than 1000, return 5 if amount is too small (less than 0.5)

■ **bankTransfer**

```
public int bankTransfer(double amount,  
java.lang.String receiverAcc,  
CA customer,  
java.lang.String accountFrom)
```

This function allows users to transfer money to another user's account using their bank number

Parameters:

- amount - amount of money to transfer
- receiverAcc - bank number of the receiver
- customer - the customer who is sending the money
- accountFrom - the account the money is being sent from

Returns:

int 0 if successful, 1 if receiver account is invalid, 2 if insufficient funds, 3 if receiver is not in BCS, 5 if amount is less than 0.5

■ **addresses**

```
public java.util.ArrayList<java.lang.String> addresses()
```

This method is used to return a list of addresses for the customer to choose from when visiting a branch.

Returns:

an array list of strings of the locations of branches

■ **logout**

```
public void logout()
```

This method is used for logout. It is used to save the customer accounts to a file. It will save the customer accounts to a file called People.ser, DO NOT TOUCH THIS METHOD.

Class People

- java.lang.Object
 - People
- All Implemented Interfaces:
java.io.Serializable

Direct Known Subclasses:

[AD](#), [CA](#), [CSR](#), [MT](#)

```
public class People
extends java.lang.Object
implements java.io.Serializable
```

This class is the parent class for: (1) CA, (2) AD, (3) MT, and (4) CSR

See Also:

[Serialized Form](#)

- ◦ **Constructor Summary**

Constructors

Constructor

[People](#)(java.lang.String firstName, java.lang.String lastName, java.lang.String email, java.lang.String phoneNum)

Description

Constructor for the People class, extended by the children that inherit it

- **Method Summary**

All Methods [Instance Methods](#) [Concrete Methods](#)

Modifier and Type Method

Modifier and Type	Method	Description
java.lang.String	getEmail()	Gets the first name of the person
java.lang.String	getFirstName()	Gets the first name of the person
java.lang.String	getLastName()	Gets the last name of the person
java.lang.String	getPhoneNum()	Gets the phone number of the person
void	setEmail (java.lang.String email)	Sets the email of the person
void	setFirstName (java.lang.String firstName)	Sets the first name of the person
void	setLastName (java.lang.String lastName)	Sets the last name of the person
void	setPhoneNum (java.lang.String phoneNum)	Sets the phone number of the person

▪ Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

- ◦ **Constructor Detail**

▪ People

```
public People(java.lang.String firstName,
              java.lang.String lastName,
```

```
java.lang.String email,  
java.lang.String phoneNum)
```

Constructor for the People class, extended by the children that inherit it

Parameters:

firstName - : the first name of the person
lastName - : the last name of the person
email - : the email of the person
phoneNum - : the phone number of the person

◦ Method Detail

▪ **setFirstName**

```
public void setFirstName(java.lang.String firstName)
```

Sets the first name of the person

Parameters:

firstName - the first name of the person

▪ **setLastName**

```
public void setLastName(java.lang.String lastName)
```

Sets the last name of the person

Parameters:

lastName - the last name of the person

▪ **getEmail**

```
public java.lang.String getEmail()
```

Gets the first name of the person

Returns:

the first name of the person

▪ **setEmail**

```
public void setEmail(java.lang.String email)
```

Sets the email of the person

Parameters:

email - the email of the person

▪ **getPhoneNum**

```
public java.lang.String getPhoneNum()
```

Gets the phone number of the person

Returns:

the phone number of the person

▪ **setPhoneNum**

```
public void setPhoneNum(java.lang.String phoneNum)
```

Sets the phone number of the person

Parameters:

phoneNum - the phone number of the person

■ **getFirstName**

```
public java.lang.String getFirstName()
```

Gets the first name of the person

Returns:

the first name of the person

■ **getLastName**

```
public java.lang.String getLastName()
```

Gets the last name of the person

Returns:

the last name of the person

Class AD

- java.lang.Object
 - [People](#)
 - AD
- All Implemented Interfaces:
java.io.Serializable

```
public class AD
extends People
```

This class creates the admin object in the system, which extends the People class. Admins have the suspicious activity reports and meeting requests the customers made to them.

See Also:

[Serialized Form](#)

- ◦ **Constructor Summary**

Constructors

Constructor

[AD](#)(java.lang.String firstName, java.lang.String lastName, java.lang.String email, java.lang.String phoneNum, int id)

Description

Constructor for the Admin

- **Method Summary**

All Methods [Instance Methods](#) [Concrete Methods](#)

Modifier and Type	Method	Description
void	addCustomerReports (Report report)	Adds a customer report to the Admin
void	addMeetingRequests (Request meetingRequest)	Adds a meeting request to the Admin
java.util.ArrayList< Report >	getCustomerReports ()	Gets the customer reports of the Admin
int	getId ()	Gets the id of the Admin
java.util.ArrayList< Request >	getMeetingRequests ()	Gets the meeting requests of the Admin
void	setId (int id)	Sets the id of the Admin

- **Methods inherited from class [People](#)**

[getEmail](#), [getFirstName](#), [getLastName](#), [getPhoneNum](#), [setEmail](#), [setFirstName](#), [setLastName](#), [setPhoneNum](#)

- **Methods inherited from class java.lang.Object**

[clone](#), [equals](#), [finalize](#), [getClass](#), [hashCode](#), [notify](#), [notifyAll](#), [toString](#), [wait](#), [wait](#), [wait](#)

- ◦ **Constructor Detail**
 - **AD**

```
public AD(java.lang.String firstName,
          java.lang.String lastName,
          java.lang.String email,
          java.lang.String phoneNum,
          int id)
```

Constructor for the Admin

Parameters:

firstName - the first name of the Admin
lastName - the last name of the Admin
email - the email of the Admin
phoneNum - the phone number of the Admin
id - the id of the Admin

◦ Method Detail

▪ getId

```
public int getId()
```

Gets the id of the Admin

Returns:

id of the admin

▪ setId

```
public void setId(int id)
```

Sets the id of the Admin

Parameters:

id - the id of the Admin

▪ getCustomerReports

```
public java.util.ArrayList<Report> getCustomerReports()
```

Gets the customer reports of the Admin

Returns:

the customer reports of the Admin

▪ addCustomerReports

```
public void addCustomerReports(Report report)
```

Adds a customer report to the Admin

Parameters:

report - the customer report to be added

▪ getMeetingRequests

```
public java.util.ArrayList<Request> getMeetingRequests()
```

Gets the meeting requests of the Admin

Returns:

the meeting requests of the Admin

■ **addMeetingRequests**

```
public void addMeetingRequests(Request meetingRequest)
```

Adds a meeting request to the Admin

Parameters:

meetingRequest - the meeting request to be added

Class CA

- java.lang.Object
 - [People](#)
 - CA
- All Implemented Interfaces:
java.io.Serializable

```
public class CA
extends People
```

Class for the customer object. It extends people and contains all extra attributes the customer has, such as card number and different notification preferences.

See Also:

[Serialized Form](#)

- **Constructor Summary**

Constructors

Constructor

[CA](#)(java.lang.String firstName, java.lang.String lastName, java.lang.String phoneNum, java.lang.String address, java.lang.String gender, java.lang.String dob, java.lang.String email, java.lang.String password, java.lang.String cardNum, java.lang.String cardExpiry, java.lang.String cvv)

Description

Constructor for the Customer Object

- **Method Summary**

All Methods [Instance Methods](#) [Concrete Methods](#)

Modifier and Type	Method	Description
void	addChequing (Transaction chequingTransaction)	Adds a transaction to the chequing transaction history of the Customer
void	addReport (Report suspiciousReport)	Adds a suspicious activity report to the suspicious report history of the Customer
void	addRequests (Request request)	Adds a request to the request history of the Customer
void	addSaving (Transaction savingTransaction)	Adds a transaction to the savings transaction history of the Customer
java.lang.String	getAddress ()	Gets the address of the Customer
java.lang.String	getBankNumber ()	Gets the bank number of the Customer
int	getBigPayment ()	Gets the 'payment above threshold' notification preference of the Customer 0 for don't notify, 1 for email notifications, and 2 for SMS notifications

java.lang.String	getCardExpiry()	Gets the card expiry of the Customer card
java.lang.String	getCardNum()	Gets the card number of the Customer
double	getChequing()	Gets the chequing account balance of the Customer
java.util.ArrayList< Transaction >	getChequingHist()	Gets the chequing transaction history of the Customer
java.lang.String	getCvv()	Gets the Card CVV of the Customer
java.lang.String	getDob()	Gets the date of birth of the Customer
java.lang.String	getGender()	Gets the gender of the customer
boolean	getKeyLogger()	Gets the keylogger boolean of the Customer true for allow keylogger tracking, false otherwise
boolean	getLocationServices()	Gets the location services boolean of the Customer Account
int	getNewsletterSubscription()	Gets the newsletter subscription notification preference of the Customer 0 for don't notify, 1 for email notifications, and 2 for SMS notifications
java.lang.String	getPassword()	Gets the password of the Customer
int	getReportReplies()	Gets the report reply notification preference of the Customer 0 for don't notify, 1 for email notifications, and 2 for SMS notifications
java.util.ArrayList< Report >	getReportSus()	Gets the suspicious activity report history of the Customer
int	getRequestReplies()	Gets the request reply notification preference of the Customer 0 for don't notify, 1 for email notifications, and 2 for SMS notifications
java.util.ArrayList< Request >	getRequests()	Gets the request history of the Customer
boolean	getRequireDataCollection()	Gets the 'require data collection' boolean of the Customer Account.
double	getSavings()	Gets the savings balance of the Customer
java.util.ArrayList< Transaction >	getSavingsHist()	Gets the savings account transaction history of the Customer
boolean	getSensitiveDataCollection()	Gets the sensitive data collection boolean of the Customer

void	<u>print()</u>	prints the Customer details
void	<u>printHistory()</u>	prints the Customer Account history details
void	<u>setAddress</u> (java.lang.String Address)	Set the address of the Customer
void	<u>setBankNumber</u> (java.lang.String num)	Sets the bank number of the Customer
void	<u>setBigPayment</u> (int bigPayment)	Sets the 'payment of amount above threshold' notification settings of the Customer Account.
void	<u>setCardExpiry</u> (java.lang.String cardExpiry)	Sets the card Expiry of the Customer card
void	<u>setCardNum</u> (java.lang.String cardNum)	Gets the card number of the Customer
void	<u>setChequing</u> (double amount)	Sets the chequing account balance of the Customer
void	<u>setCvv</u> (java.lang.String cvv)	Sets the Card CVV of the Customer card
void	<u>setDob</u> (java.lang.String dob)	Sets the date of birth of the Customer
void	<u>setGender</u> (java.lang.String gender)	Sets the gender of the customer
void	<u>setKeyLogger</u> (boolean keyLogger)	Sets the keylogger boolean of the Customer Account true for allow keylogger tracking, false otherwise
void	<u>setLocationServices</u> (boolean locationServices)	Sets the location tracking preferences of the Customer
void	<u>setNewsletterSubscription</u> (int subscription)	Sets the newsletter subscription notification settings of the Customer Account.
void	<u>setPassword</u> (java.lang.String password)	Sets the password of the Customer
void	<u>setReportReplies</u> (int reportReplies)	Sets the report reply notification settings of the Customer Account.
void	<u>setRequestReplies</u> (int requestReplies)	Sets the request reply notification settings of the Customer Account.
void	<u>setRequireDataCollection</u> (boolean requireDataCollection)	Sets the 'require data collection' boolean of the Customer for privacy settings.
void	<u>setSavings</u> (double amount)	Sets the savings account balance of the Customer
void	<u>setSensitiveDataCollection</u> (boolean sensitiveDataCollection)	Sets the sensitive data collection boolean of the Customer for privacy settings.

▪ **Methods inherited from class [People](#)**

[getEmail](#), [getFirstName](#), [getLastName](#), [getPhoneNum](#), [setEmail](#), [setFirstName](#), [setLastName](#), [setPhoneNum](#)

▪ **Methods inherited from class java.lang.Object**

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

- **◦ Constructor Detail**

- **CA**

```
public CA(java.lang.String firstName,  
          java.lang.String lastName,  
          java.lang.String phoneNum,  
          java.lang.String address,  
          java.lang.String gender,  
          java.lang.String dob,  
          java.lang.String email,  
          java.lang.String password,  
          java.lang.String cardNum,  
          java.lang.String cardExpiry,  
          java.lang.String cvv)
```

Constructor for the Customer Object

Parameters:

- firstName - the first name of the Customer Account
- lastName - the last name of the Customer Account
- phoneNum - the phone number of the Customer Account
- address - the address of the Customer Account
- gender - the gender of the customer
- dob - the date of birth of the customer
- email - the email of the Customer Account
- password - the password of the Customer Account
- cardNum - the card number of the Customer Account
- cardExpiry - the card expiry of the Customer Account
- cvv - the cvv of the Customer Account

- **Method Detail**

- **setLocationServices**

```
public void setLocationServices(boolean locationServices)
```

Sets the location tracking preferences of the Customer

Parameters:

- locationServices - boolean, true if location tracking is allowed, false otherwise

- **getLocationServices**

```
public boolean getLocationServices()
```

Gets the location services boolean of the Customer Account

Returns:

- boolean, the location services preferences of the Customer

- **setRequestReplies**

```
public void setRequestReplies(int requestReplies)
```

Sets the request reply notification settings of the Customer Account. 0 for don't notify, 1 for email notifications, and 2 for SMS notification

Parameters:

requestReplies - an integer signifying the notification preferences of request replies of the Customer

■ **setReportReplies**

```
public void setReportReplies(int reportReplies)
```

Sets the report reply notification settings of the Customer Account. 0 for don't notify, 1 for email notifications, and 2 for SMS notification

Parameters:

reportReplies - an integer signifying the notification preferences of report replies of the Customer

■ **setNewsletterSubscription**

```
public void setNewsletterSubscription(int subscription)
```

Sets the newsletter subscription notification settings of the Customer Account. 0 for don't notify, 1 for email notifications, and 2 for SMS notification

Parameters:

subscription - an integer signifying whether the Customer wants to receive newsletter notifications

■ **setBigPayment**

```
public void setBigPayment(int bigPayment)
```

Sets the 'payment of amount above threshold' notification settings of the Customer Account. 0 for don't notify, 1 for email notifications, and 2 for SMS notification

Parameters:

bigPayment - an integer signifying the notification preferences when it comes to large payments

■ **getRequestReplies**

```
public int getRequestReplies()
```

Gets the request reply notification preference of the Customer 0 for don't notify, 1 for email notifications, and 2 for SMS notifications

Returns:

int: the request reply notification setting of the Customer

■ **getReportReplies**

```
public int getReportReplies()
```

Gets the report reply notification preference of the Customer 0 for don't notify, 1 for email notifications, and 2 for SMS notifications

Returns:

int: the report reply notification setting of the Customer

■ **getNewsletterSubscription**

```
public int getNewsletterSubscription()
```

Gets the newsletter subscription notification preference of the Customer 0 for don't notify, 1 for email notifications, and 2 for SMS notifications

Returns:

int: the newsletter subscription notification setting of the Customer

■ **getBigPayment**

```
public int getBigPayment()
```

Gets the 'payment above threshold' notification preference of the Customer 0 for don't notify, 1 for email notifications, and 2 for SMS notifications

Returns:

int: the large payment notification setting of the Customer

■ **setRequireDataCollection**

```
public void setRequireDataCollection(boolean requireDataCollection)
```

Sets the 'require data collection' boolean of the Customer for privacy settings. true for allow required data collection, false for don't allow

Parameters:

requireDataCollection - the 'require data collection' permission of the Customer Account

■ **getRequireDataCollection**

```
public boolean getRequireDataCollection()
```

Gets the 'require data collection' boolean of the Customer Account. true for allow required data collection, false for don't allow

Returns:

boolean the 'require data collection' permission of the Customer

■ **setSensitiveDataCollection**

```
public void setSensitiveDataCollection(boolean sensitiveDataCollection)
```

Sets the sensitive data collection boolean of the Customer for privacy settings. true for allow sensitive data to be collected, false otherwise

Parameters:

sensitiveDataCollection - the boolean to allow/not allow sensitive data to be collected

■ **getSensitiveDataCollection**

```
public boolean getSensitiveDataCollection()
```

Gets the sensitive data collection boolean of the Customer

Returns:

boolean the sensitive data collection of the Customer

■ **setKeyLogger**

```
public void setKeyLogger(boolean keyLogger)
```

Sets the keylogger boolean of the Customer Account true for allow keylogger tracking, false otherwise

Parameters:

keyLogger - boolean to allow/not allow keylogger tracking

- **getKeyLogger**

```
public boolean getKeyLogger()
```

Gets the keylogger boolean of the Customer true for allow keylogger tracking, false otherwise

Returns:

boolean the keylogger preference of the Customer Account

- **setBankNumber**

```
public void setBankNumber(java.lang.String num)
```

Sets the bank number of the Customer

Parameters:

num - the bank number of the Customer that is to be set

- **getBankNumber**

```
public java.lang.String getBankNumber()
```

Gets the bank number of the Customer

Returns:

String the bank number of the Customer

- **setCardExpiry**

```
public void setCardExpiry(java.lang.String cardExpiry)
```

Sets the card Expiry of the Customer card

Parameters:

cardExpiry - the card expiry of the Customer card

- **getCardExpiry**

```
public java.lang.String getCardExpiry()
```

Gets the card expiry of the Customer card

Returns:

String the card expiry of the Customer card

- **setCvv**

```
public void setCvv(java.lang.String cvv)
```

Sets the Card CVV of the Customer card

Parameters:

cvv - the cvv of the Customer card

- **getCvv**

```
public java.lang.String getCvv()
```

Gets the Card CVV of the Customer

Returns:

String the cvv of the Customer Account

■ **setPassword**

```
public void setPassword(java.lang.String password)
```

Sets the password of the Customer

Parameters:

password - the password of the Customer

■ **getPassword**

```
public java.lang.String getPassword()
```

Gets the password of the Customer

Returns:

String the password of the Customer

■ **setDob**

```
public void setDob(java.lang.String dob)
```

Sets the date of birth of the Customer

Parameters:

dob - the date of birth of the Customer

■ **getDob**

```
public java.lang.String getDob()
```

Gets the date of birth of the Customer

Returns:

String the date of birth of the Customer

■ **setGender**

```
public void setGender(java.lang.String gender)
```

Sets the gender of the customer

Parameters:

gender - the gender of the customer

■ **getGender**

```
public java.lang.String getGender()
```

Gets the gender of the customer

Returns:

String gender the gender of the customer

■ **getAddress**


```
public java.lang.String getAddress()
```

Gets the address of the Customer

Returns:

String the address of the Customer

■ **setAddress**

```
public void setAddress(java.lang.String Address)
```

Set the address of the Customer

Parameters:

Address - the address of the Customer

■ **setCardNum**

```
public void setCardNum(java.lang.String cardNum)
```

Gets the card number of the Customer

Parameters:

cardNum - the card number of the Customer

■ **getCardNum**

```
public java.lang.String getCardNum()
```

Gets the card number of the Customer

Returns:

String the card number of the Customer

■ **setChequing**

```
public void setChequing(double amount)
```

Sets the chequing account balance of the Customer

Parameters:

amount - the chequing account balance of the Customer

■ **getChequing**

```
public double getChequing()
```

Gets the chequing account balance of the Customer

Returns:

double the chequing account balance of the Customer

■ **setSavings**

```
public void setSavings(double amount)
```

Sets the savings account balance of the Customer

Parameters:

amount - the savings account balance of the Customer

- **getSavings**

```
public double getSavings()
```

Gets the savings balance of the Customer

Returns:

double the savings balance of the Customer

- **getChequingHist**

```
public java.util.ArrayList<Transaction> getChequingHist()
```

Gets the chequing transaction history of the Customer

Returns:

Arraylist of Transaction objects which hold the chequing account transaction history of the Customer

- **addChequing**

```
public void addChequing(Transaction chequingTransaction)
```

Adds a transaction to the chequing transaction history of the Customer

Parameters:

chequingTransaction - the transaction to be added to the chequing transaction history of the Customer

- **getSavingsHist**

```
public java.util.ArrayList<Transaction> getSavingsHist()
```

Gets the savings account transaction history of the Customer

Returns:

ArrayList of Transaction objects which hold the savings account transaction history of the Customer

- **addSaving**

```
public void addSaving(Transaction savingTransaction)
```

Adds a transaction to the savings transaction history of the Customer

Parameters:

savingTransaction - the transaction to be added to the savings account transaction history of the Customer

- **getReportSus**

```
public java.util.ArrayList<Report> getReportSus()
```

Gets the suspicious activity report history of the Customer

Returns:

ArrayList of Report objects which represent all the suspicious activity reports the customer made

- **addReport**

```
public void addReport(Report suspiciousReport)
```

Adds a suspicious activity report to the suspicious report history of the Customer

Parameters:

suspiciousReport - the suspicious report to be added to the suspicious report history of the Customer

▪ **getRequests**

```
public java.util.ArrayList<Request> getRequests()
```

Gets the request history of the Customer

Returns:

ArrayList of Request objects which represent the request history of the Customer

▪ **addRequests**

```
public void addRequests(Request request)
```

Adds a request to the request history of the Customer

Parameters:

request - the request to be added to the request history of the Customer

▪ **print**

```
public void print()
```

prints the Customer details

▪ **printHistory**

```
public void printHistory()
```

prints the Customer Account history details

Class CSR

- java.lang.Object
 - [People](#)
 - CSR
- All Implemented Interfaces:
java.io.Serializable

```
public class CSR
extends People
```

Class for the customer service representative (CSR) object. It extends People and has extra attributes only pertinent to CSR, such as ID.

See Also:

[Serialized Form](#)

- **Constructor Summary**

Constructors

Constructor

[CSR](#)(java.lang.String firstName, java.lang.String lastName, java.lang.String email, java.lang.String phoneNum, int id)

Description

Constructor for the CSR

- **Method Summary**

All Methods [Instance Methods](#) [Concrete Methods](#)

Modifier and Type

Method

Description

void

[addRequest](#)
([Request](#) assistance)

Adds an assistance request made by the customer to the CSR

java.util.ArrayList<[Request](#)> [getAssistanceRequests](#)()

Gets the assistance requests of the CSR

int

[getId](#)()

Gets the id of the CSR

void

[setId](#)(int id)

Sets the id of the CSR

- **Methods inherited from class [People](#)**

[getEmail](#), [getFirstName](#), [getLastName](#), [getPhoneNum](#), [setEmail](#), [setFirstName](#), [setLastName](#), [setPhoneNum](#)

- **Methods inherited from class java.lang.Object**

[clone](#), [equals](#), [finalize](#), [getClass](#), [hashCode](#), [notify](#), [notifyAll](#), [toString](#), [wait](#), [wait](#), [wait](#)

- **Constructor Detail**

- **CSR**

```
public CSR(java.lang.String firstName,
           java.lang.String lastName,
           java.lang.String email,
           java.lang.String phoneNum,
           int id)
```

Constructor for the CSR

Parameters:

- firstName - the first name of the CSR
- lastName - the last name of the CSR
- email - the email of the CSR
- phoneNum - the phone number of the CSR
- id - the id of the CSR

◦ Method Detail

▪ getAssistanceRequests

```
public java.util.ArrayList<Request> getAssistanceRequests()
```

Gets the assistance requests of the CSR

Returns:

ArrayList of Request objects, the assistance requests the CSR received from a customer

▪ addRequest

```
public void addRequest(Request assistance)
```

Adds an assistance request made by the customer to the CSR

Parameters:

assistance - the assistance request to be added

▪ getId

```
public int getId()
```

Gets the id of the CSR

Returns:

id of the CSR

▪ setId

```
public void setId(int id)
```

Sets the id of the CSR

Parameters:

id - the id of the CSR

Class MT

- java.lang.Object
 - [People](#)
 - MT
- All Implemented Interfaces:
java.io.Serializable

```
public class MT
extends People
```

Class for maintenance team object. It extends the people class, and has extra attributes such as all the system request changes made by the customer (stored in an arraylist).

See Also:

[Serialized Form](#)

- **Constructor Summary**

Constructors

Constructor

[MT](#)(java.lang.String firstName, java.lang.String lastName, java.lang.String email, java.lang.String phoneNum, int id)

Description

Constructor for the MT

- **Method Summary**

All Methods [Instance Methods](#) [Concrete Methods](#)

Modifier and Type	Method	Description
void	addSysRequest (Request sysChange)	Adds a system change request to the Maintenance Team
int	getId ()	Gets the id of the Maintenance Team member
java.util.ArrayList< Request >	getSysChangeRequests ()	Gets the system change requests sent to the Maintenance Team by the customer
void	setId (int id)	Sets the id of the Maintenance Team member

- **Methods inherited from class [People](#)**

[getEmail](#), [getFirstName](#), [getLastName](#), [getPhoneNum](#), [setEmail](#), [setFirstName](#), [setLastName](#), [setPhoneNum](#)

- **Methods inherited from class java.lang.Object**

[clone](#), [equals](#), [finalize](#), [getClass](#), [hashCode](#), [notify](#), [notifyAll](#), [toString](#), [wait](#), [wait](#), [wait](#)

- **Constructor Detail**

- **MT**

```
public MT(java.lang.String firstName,
          java.lang.String lastName,
          java.lang.String email,
```

```
java.lang.String phoneNum,  
int id)
```

Constructor for the MT

Parameters:

firstName - the first name of the Maintenance Team member

lastName - the last name of the Maintenance Team member

email - the email of the Maintenance Team member

phoneNum - the phone number of the Maintenance Team member

id - the id of the Maintenance Team member

◦ Method Detail

▪ **getSysChangeRequests**

```
public java.util.ArrayList<Request> getSysChangeRequests()
```

Gets the system change requests sent to the Maintenance Team by the customer

Returns:

the system change requests of the MT

▪ **addSysRequest**

```
public void addSysRequest(Request sysChange)
```

Adds a system change request to the Maintenance Team

Parameters:

sysChange - the system change request to be added

▪ **getId**

```
public int getId()
```

Gets the id of the Maintenance Team member

Returns:

the id of the MT

▪ **setId**

```
public void setId(int id)
```

Sets the id of the Maintenance Team member

Parameters:

id - the id of the MT

Class Report

- java.lang.Object
 - Report
- All Implemented Interfaces:
java.io.Serializable

```
public class Report
extends java.lang.Object
implements java.io.Serializable
```

This class creates the Report object that contains all the details of any suspicious activity report that the customer makes

See Also:

[Serialized Form](#)

- ◦ **Constructor Summary**

Constructors

Constructor

Description

[Report](#)([CA](#) customer, [AD](#) admin, java.lang.String description) Constructor for Report

- **Method Summary**

All Methods [Instance Methods](#) [Concrete Methods](#)

Modifier and Type

Method

Description

[AD](#)

[getAdmin\(\)](#)

Gets the admin that receives the report

[CA](#)

[getCustomer\(\)](#)

Gets the customer that made the report

java.lang.String

[getDescription\(\)](#)

Gets the description of the report that the customer made

void

[setAdmin](#)([AD](#) admin)

Sets the admin that receives the report

void

[setCustomer](#)([CA](#) customer)

Sets the customer that made the report

void

[setDescription](#)
(java.lang.String description)

Sets the description of the report that the customer made

▪ Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

- ◦ **Constructor Detail**

▪ **Report**

```
public Report(CA customer,
             AD admin,
             java.lang.String description)
```

Constructor for Report

Parameters:

customer - the customer that made the suspicious activity report
admin - the admin that receives the suspicious activity report
description - the details of the report being made

- **Method Detail**

- **setCustomer**

```
public void setCustomer(CA customer)
```

Sets the customer that made the report

Parameters:

customer - the customer that made the report

- **getCustomer**

```
public CA getCustomer()
```

Gets the customer that made the report

Returns:

the customer that made the report

- **setAdmin**

```
public void setAdmin(AD admin)
```

Sets the admin that receives the report

Parameters:

admin - the admin that receives the report

- **getAdmin**

```
public AD getAdmin()
```

Gets the admin that receives the report

Returns:

the admin that receives the report

- **setDescription**

```
public void setDescription(java.lang.String description)
```

Sets the description of the report that the customer made

Parameters:

description - a string describing the report details

- **getDescription**

```
public java.lang.String getDescription()
```

Gets the description of the report that the customer made

Returns:

a string describing the report details

Class Request

- java.lang.Object
 - Request
- All Implemented Interfaces:
java.io.Serializable

```
public class Request
extends java.lang.Object
implements java.io.Serializable
```

This class creates the different request objects depending on the different types of request the customer makes. Different receivers are set for different types of reports made. Types: (1) Request system changes, (2) request meeting from admin, (3) request assistance from CSR.

See Also:

[Serialized Form](#)

- ◦ **Constructor Summary**

Constructor

[Request](#)(java.lang.String type, [AD](#) admin, java.lang.String details)

[Request](#)(java.lang.String type, [CSR](#) csr, java.lang.String description)

[Request](#)(java.lang.String type, [MT](#) mt, java.lang.String description)

Constructors

Description

Constructor for Request (type 2), requesting a meeting from admin

Constructor for Request (type 3), requesting assistance from CSR

Constructor for Request (type 1), requesting system changes from maintenance team

- **Method Summary**

All Methods [Instance Methods](#) [Concrete Methods](#)

Modifier and Type Method

[AD](#) [getAdmin](#)()

[CSR](#) [getCSR](#)()

java.lang.String [getDetails](#)()

[MT](#) [getMT](#)()

java.lang.String [getType](#)()

void [setAdmin](#)([AD](#) admin)

void [setCSR](#)([CSR](#) csr)

void [setDetails](#)(java.lang.String str)

void [setMT](#)([MT](#) mt)

void [setType](#)(java.lang.String type)

Description

Gets the admin

Gets the customer service representative

Gets the details of the request

Gets the maintenance team

Gets the type of request

Sets the admin

Sets the customer service representative

Sets the details of the request

Sets the maintenance team

Sets the type of request

▪ Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

- ◦ **Constructor Detail**

■ Request

```
public Request(java.lang.String type,  
               MT mt,  
               java.lang.String description)
```

Constructor for Request (type 1), requesting system changes from maintenance team

Parameters:

type - the type of request

mt - the maintenance team receiving the system changes request

description - the details of the system changes request

■ Request

```
public Request(java.lang.String type,  
               AD admin,  
               java.lang.String details)
```

Constructor for Request (type 2), requesting a meeting from admin

Parameters:

type - the type of request

admin - the admin receiving the meeting request

details - the details of the meeting request

■ Request

```
public Request(java.lang.String type,  
               CSR csr,  
               java.lang.String description)
```

Constructor for Request (type 3), requesting assistance from CSR

Parameters:

type - the type of request

csr - the customer service representative that receives the request

description - the description of the assistance request

○ Method Detail

■ getType

```
public java.lang.String getType()
```

Gets the type of request

Returns:

the type of request

■ setType

```
public void setType(java.lang.String type)
```

Sets the type of request

Parameters:

type - the type of request

■ getAdmin

```
public AD getAdmin()
```

Gets the admin

Returns:

the admin that receives the meeting request

■ **setAdmin**

```
public void setAdmin(AD admin)
```

Sets the admin

Parameters:

admin - the admin that receives the meeting request

■ **getMT**

```
public MT getMT()
```

Gets the maintenance team

Returns:

the maintenance team receiving the system changes request

■ **setMT**

```
public void setMT(MT mt)
```

Sets the maintenance team

Parameters:

mt - the maintenance team receiving the system changes request

■ **getCSR**

```
public CSR getCSR()
```

Gets the customer service representative

Returns:

the customer service representative receiving the assistance request

■ **setCSR**

```
public void setCSR(CSR csr)
```

Sets the customer service representative

Parameters:

csr - the customer service representative receiving the assistance request

■ **getDetails**

```
public java.lang.String getDetails()
```

Gets the details of the request

Returns:

the details/date of the request being made

■ **setDetails**

```
public void setDetails(java.lang.String str)
```

Sets the details of the request

Parameters:

str - the details/date of the request being made

Class Transaction

- java.lang.Object
 - Transaction
- All Implemented Interfaces:
java.io.Serializable

```
public class Transaction
extends java.lang.Object
implements java.io.Serializable
```

This class creates a transaction object which is used whenever the customer transfer money/make a payment.

See Also:

[Serialized Form](#)

- ◦ **Constructor Summary**

Constructors

Constructor

[Transaction](#)(java.lang.String sender, java.lang.String receiver,
double amount, int id)

Description

Constructor for transactions.

- **Method Summary**

All Methods [Instance Methods](#) [Concrete Methods](#)

Modifier and Type	Method	Description
java.lang.String	getAccountFrom ()	Gets the account the transaction was sent from
double	getAmount ()	Gets the amount of the transaction
int	getId ()	Gets the id of the transaction
java.lang.String	getReceiver ()	Gets the receiver of the transaction
double	getReceiverRemaining ()	Gets the remaining amount the receiver has in their account after the transaction
java.lang.String	getSender ()	Gets the sender of the transaction
double	getSenderRemaining ()	Gets the remaining amount the sender has in their account after the transaction
void	setAccountFrom (java.lang.String from)	Sets the account the transaction was sent from
void	setAmount (double amount)	Sets the amount of the transaction
void	setId (int id)	Sets the id of the transaction
void	setReceiver (java.lang.String receiver)	Sets the receiver of the transaction
void	setReceiverRemaining (double remaining)	Sets the remaining amount the receiver has in their account after the transaction
void	setSender (java.lang.String sender)	Sets the sender of the transaction
void	setSenderRemaining (double remaining)	Sets the remaining amount the sender has in their account after the transaction

- **Methods inherited from class java.lang.Object**

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

- - **Constructor Detail**

- **Transaction**

```
public Transaction(java.lang.String sender,  
                  java.lang.String receiver,  
                  double amount,  
                  int id)
```

Constructor for transactions. 3 types of transaction: Transaction types: 1- If sender = "Chequing" and receiver = "Savings", transfer funds between accounts locally, and vice versa between accounts 2- If sender = "Current" and receiver = Valid Email, etransfer funds 3- If sender = "Current" and receiver = 5-digit number, bank transfer to that account number

Parameters:

sender - the sender/sending account of the transaction

receiver - the receiving account/email/bank account number of the transaction

amount - the amount to be transferred

id - the id of the transaction

- **Method Detail**

- **getSender**

```
public java.lang.String getSender()
```

Gets the sender of the transaction

Returns:

the sender of the transaction

- **setSender**

```
public void setSender(java.lang.String sender)
```

Sets the sender of the transaction

Parameters:

sender - the sender of the transaction

- **getReceiver**

```
public java.lang.String getReceiver()
```

Gets the receiver of the transaction

Returns:

the receiver of the transaction

- **setReceiver**

```
public void setReceiver(java.lang.String receiver)
```

Sets the receiver of the transaction

Parameters:

receiver - the receiver of the transaction

- **getAmount**

```
public double getAmount()
```

Gets the amount of the transaction

Returns:

the amount of the transaction

- **setAmount**

```
public void setAmount(double amount)
```

Sets the amount of the transaction

Parameters:

amount - the amount of the transaction

- **getId**

```
public int getId()
```

Gets the id of the transaction

Returns:

the id of the transaction

- **setId**

```
public void setId(int id)
```

Sets the id of the transaction

Parameters:

id - the id of the transaction

- **getAccountFrom**

```
public java.lang.String getAccountFrom()
```

Gets the account the transaction was sent from

Returns:

the account the transaction was sent from

- **setAccountFrom**

```
public void setAccountFrom(java.lang.String from)
```

Sets the account the transaction was sent from

Parameters:

from - the account that initiated the transaction

- **getSenderRemaining**

```
public double getSenderRemaining()
```


Gets the remaining amount the sender has in their account after the transaction

Returns:
the remaining amount

■ **setSenderRemaining**

```
public void setSenderRemaining(double remaining)
```

Sets the remaining amount the sender has in their account after the transaction

Parameters:
remaining - the amount remaining in the sender's account

■ **getReceiverRemaining**

```
public double getReceiverRemaining()
```

Gets the remaining amount the receiver has in their account after the transaction

Returns:
the remaining amount

■ **setReceiverRemaining**

```
public void setReceiverRemaining(double remaining)
```

Sets the remaining amount the receiver has in their account after the transaction

Parameters:
remaining - the amount remaining in the receiver's account

Class BankSystem

- java.lang.Object
- ◦ BankSystem

-
- public class BankSystem
extends java.lang.Object

Main class, it contains the main method and initializes the system to its Login Page.

- ◦ **Constructor Summary**

Constructors

Constructor Description

[BankSystem\(\)](#)

- **Method Summary**

All Methods [Static Methods](#) [Concrete Methods](#)

Modifier and Type	Method	Description
static void	main (java.lang.String[] args)	main method, creates a new LoginPage frame for users to start using the bank system

▪ Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

- ◦ **Constructor Detail**

▪ BankSystem

public BankSystem()

- **Method Detail**

▪ main

public static void main(java.lang.String[] args)

main method, creates a new LoginPage frame for users to start using the bank system

Parameters:

args - the main method argument

Class LoginPage

- java.lang.Object
- - java.awt.Component
 - java.awt.Container
 - java.awt.Window
 - java.awt.Frame
 - javax.swing.JFrame
 - LoginPage
- All Implemented Interfaces:
java.awt.event.ActionListener, java.awt.image.ImageObserver, java.awt.MenuContainer,
java.io.Serializable, java.util.EventListener, javax.accessibility.Accessible,
javax.swing.RootPaneContainer, javax.swing.WindowConstants

```
public class LoginPage
extends javax.swing.JFrame
implements java.awt.event.ActionListener
```

This class is the graphical implementation of the Login page. Customers that already have an account can enter their email and password, and if they match an account in the system, their homepage is displayed. Otherwise, a prompt saying the account doesn't exist is shown. This page is shown when the system is initialized, and the customer can either log in with their existing account or register for an account. Customers could also go to the Forgot Password page. No other pages can be accessed through here, as all other functionality/use-cases require the customer to be logged in (the rest are accessible after login from the homepage).

See Also:

[Serialized Form](#)

- - **Nested Class Summary**
 - **Nested classes/interfaces inherited from class javax.swing.JFrame**

javax.swing.JFrame.AccessibleJFrame
 - **Nested classes/interfaces inherited from class java.awt.Frame**

java.awt.Frame.AccessibleAWTFrame
 - **Nested classes/interfaces inherited from class java.awt.Window**

java.awt.Window.AccessibleAWTWindow, java.awt.Window.Type
 - **Nested classes/interfaces inherited from class java.awt.Container**

java.awt.Container.AccessibleAWTContainer
 - **Nested classes/interfaces inherited from class java.awt.Component**

java.awt.Component.AccessibleAWTComponent, java.awt.Component.BaselineResizeBehavior,
java.awt.Component.BltBufferStrategy, java.awt.Component.FlipBufferStrategy
 - **Field Summary**

- **Fields inherited from class javax.swing.JFrame**

accessibleContext, rootPane, rootPaneCheckingEnabled

- **Fields inherited from class java.awt.Frame**

CROSSHAIR_CURSOR, DEFAULT_CURSOR, E_RESIZE_CURSOR, HAND_CURSOR, ICONIFIED, MAXIMIZED_BOTH, MAXIMIZED_HORIZ, MAXIMIZED_VERT, MOVE_CURSOR, N_RESIZE_CURSOR, NE_RESIZE_CURSOR, NORMAL, NW_RESIZE_CURSOR, S_RESIZE_CURSOR, SE_RESIZE_CURSOR, SW_RESIZE_CURSOR, TEXT_CURSOR, W_RESIZE_CURSOR, WAIT_CURSOR

- **Fields inherited from class java.awt.Component**

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

- **Fields inherited from interface java.awt.image.ImageObserver**

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS

- **Fields inherited from interface javax.swing.WindowConstants**

DISPOSE_ON_CLOSE, DO_NOTHING_ON_CLOSE, EXIT_ON_CLOSE, HIDE_ON_CLOSE

- **Constructor Summary**

Constructors	
Constructor	Description
LoginPage (BankAutomated BA)	LoginPage Constructor, this constructor creates all the frame specifications for the login page

- **Method Summary**

All Methods Instance Methods Concrete Methods		
Modifier and Type	Method	Description
void	actionPerformed (java.awt.event.ActionEvent e)	actionPerformed method (implementing ActionListener).
void	paint (java.awt.Graphics g)	paint method, overrides the JFrame paint method in order to allow for custom graphical design

- **Methods inherited from class javax.swing.JFrame**

addImpl, createRootPane, frameInit, getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, isRootPaneCheckingEnabled, paramString, processWindowEvent, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setIconImage, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, setTransferHandler, update

- **Methods inherited from class java.awt.Frame**

addNotify, getCursorType, getExtendedState, getFrames, getIconImage, getMaximizedBounds, getMenuBar, getState, getTitle, isResizable, isUndecorated, remove, removeNotify, setBackground, setCursor, setExtendedState, setMaximizedBounds, setMenuBar, setOpacity, setResizable, setShape, setState, setTitle, setUndecorated

■ Methods inherited from class java.awt.Window

addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getBackground, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOpacity, getOwnedWindows, getOwner, getOwnerlessWindows, getShape, getToolkit, getType, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isAutoRequestFocus, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isOpaque, isShowing, isValidRoot, pack, postEvent, processEvent, processWindowFocusEvent, processWindowStateEvent, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setAutoRequestFocus, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImages, setLocation, setLocation, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setType, setVisible, show, toBack, toFront

■ Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalPolicy, getInsets, getLayout, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, print, printComponents, processContainerEvent, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, transferFocusDownCycle, validate, validateTree

■ Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, contains, createImage, createImage, createVolatileImage, createVolatileImage, disable, disableEvents, dispatchEvent, enable, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBaseline, getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocation, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, prepareImage, prepareImage, printAll, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processKeyEvent, processMouseEvent, processMouseMotionEvent, processMouseWheelEvent, removeComponentListener, removeFocusListener,

removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, requestFocus, requestFocus, requestFocus, requestFocus, requestFocusInWindow, requestFocusInWindow, requestFocusInWindow, resize, resize, revalidate, setComponentOrientation, setDropTarget, setEnabled, setFocusable, setFocusTraversalKeysEnabled, setForeground, setIgnoreRepaint, setLocale, setMaximumSize, setMixingCutoutShape, setName, setPreferredSize, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle

▪ **Methods inherited from class java.lang.Object**

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

▪ **Methods inherited from interface java.awt.MenuContainer**

getFont, postEvent

• **Constructor Detail**

▪ **LoginPage**

```
public LoginPage(BankAutomated BA)
```

LoginPage Constructor, this constructor creates all the frame specifications for the login page

Parameters:

BA - BankAutomated object, handles all the logic and passes it to other pages if necessary

◦ **Method Detail**

▪ **paint**

```
public void paint(java.awt.Graphics g)
```

paint method, overrides the JFrame paint method in order to allow for custom graphical design

Overrides:

paint in class java.awt.Window

Parameters:

g - Graphics object

▪ **actionPerformed**

```
public void actionPerformed(java.awt.event.ActionEvent e)
```

actionPerformed method (implementing ActionListener). BankAutomated checks the validity and authenticity of the data inputted, and any buttons that are pressed are handled in this method (e.g., other pages are displayed, password inputted is shown, etc.).

Specified by:

actionPerformed in interface java.awt.event.ActionListener

Parameters:

e - the event to be processed

Class RegisterPage

- java.lang.Object
- - java.awt.Component
 - java.awt.Container
 - java.awt.Window
 - java.awt.Frame
 - javax.swing.JFrame
 - RegisterPage- All Implemented Interfaces:
java.awt.event.ActionListener, java.awt.image.ImageObserver, java.awt.MenuContainer,
java.io.Serializable, java.util.EventListener, javax.accessibility.Accessible,
javax.swing.RootPaneContainer, javax.swing.WindowConstants

```
public class RegisterPage
extends javax.swing.JFrame
implements java.awt.event.ActionListener
```

This class is the graphical implementation of the Register/Sign-up page. Users can input their details in order to create an account for themselves. A customer object using all the user's details is created in this page.

See Also:

[Serialized Form](#)

- - **Nested Class Summary**

- **Nested classes/interfaces inherited from class javax.swing.JFrame**

- javax.swing.JFrame.AccessibleJFrame

- **Nested classes/interfaces inherited from class java.awt.Frame**

- java.awt.Frame.AccessibleAWTFrame

- **Nested classes/interfaces inherited from class java.awt.Window**

- java.awt.Window.AccessibleAWTWindow, java.awt.Window.Type

- **Nested classes/interfaces inherited from class java.awt.Container**

- java.awt.Container.AccessibleAWTContainer

- **Nested classes/interfaces inherited from class java.awt.Component**

- java.awt.Component.AccessibleAWTComponent, java.awt.Component.BaselineResizeBehavior,
java.awt.Component.BltBufferStrategy, java.awt.Component.FlipBufferStrategy

- **Field Summary**

- **Fields inherited from class javax.swing.JFrame**

- accessibleContext, rootPane, rootPaneCheckingEnabled

▪ Fields inherited from class `java.awt.Frame`

CROSSHAIR_CURSOR, DEFAULT_CURSOR, E_RESIZE_CURSOR, HAND_CURSOR, ICONIFIED, MAXIMIZED_BOTH, MAXIMIZED_HORIZ, MAXIMIZED_VERT, MOVE_CURSOR, N_RESIZE_CURSOR, NE_RESIZE_CURSOR, NORMAL, NW_RESIZE_CURSOR, S_RESIZE_CURSOR, SE_RESIZE_CURSOR, SW_RESIZE_CURSOR, TEXT_CURSOR, W_RESIZE_CURSOR, WAIT_CURSOR

▪ Fields inherited from class `java.awt.Component`

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

▪ Fields inherited from interface `java.awt.image.ImageObserver`

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS

▪ Fields inherited from interface `javax.swing.WindowConstants`

DISPOSE_ON_CLOSE, DO_NOTHING_ON_CLOSE, EXIT_ON_CLOSE, HIDE_ON_CLOSE

◦ Constructor Summary

Constructor	Constructors Description
RegisterPage (BankAutomated logic, LoginPage login)	RegisterPage Constructor, this page sets all the frame specifications (e.g., creating buttons and text fields)

◦ Method Summary

All Methods Instance Methods Concrete Methods		
Modifier and Type	Method	Description
void	actionPerformed (<code>java.awt.event.ActionEvent e</code>)	actionPerformed method (implementing ActionListener).
void	paint (<code>java.awt.Graphics g</code>)	paint method, overrides the JFrame paint method in order to allow for custom graphical design

▪ Methods inherited from class `javax.swing.JFrame`

addImpl, createRootPane, frameInit, getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, isRootPaneCheckingEnabled, paramString, processWindowEvent, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setIconImage, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, setTransferHandler, update

▪ Methods inherited from class `java.awt.Frame`

addNotify, getCursorType, getExtendedState, getFrames, getIconImage, getMaximizedBounds, getMenuBar, getState, getTitle, isResizable, isUndecorated, remove, removeNotify, setBackground, setCursor, setExtendedState, setMaximizedBounds, setMenuBar, setOpacity, setResizable, setShape, setState, setTitle, setUndecorated

▪ Methods inherited from class `java.awt.Window`

addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getBackground, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOpacity, getOwnedWindows, getOwner, getOwnerlessWindows, getShape, getToolkit, getType, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isAutoRequestFocus, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isOpaque, isShowing, isValidRoot, pack, postEvent, processEvent, processWindowFocusEvent, processWindowStateEvent, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setAutoRequestFocus, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImages, setLocation, setLocation, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setType, setVisible, show, toBack, toFront

■ Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalPolicy, getInsets, getLayout, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, print, printComponents, processContainerEvent, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, transferFocusDownCycle, validate, validateTree

■ Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, contains, createImage, createImage, createVolatileImage, createVolatileImage, disable, disableEvents, dispatchEvent, enable, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBaseline, getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocation, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, prepareImage, prepareImage, printAll, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processKeyEvent, processMouseEvent, processMouseMotionEvent, processMouseWheelEvent, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener,

removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, requestFocus, requestFocus, requestFocus, requestFocus, requestFocusInWindow, requestFocusInWindow, requestFocusInWindow, resize, resize, revalidate, setComponentOrientation, setDropTarget, setEnabled, setFocusable, setFocusTraversalKeysEnabled, setForeground, setIgnoreRepaint, setLocale, setMaximumSize, setMixingCutoutShape, setName, setPreferredSize, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle

- **Methods inherited from class java.lang.Object**

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

- **Methods inherited from interface java.awt.MenuContainer**

getFont, postEvent

- ◦ **Constructor Detail**

- **RegisterPage**

```
public RegisterPage(BankAutomated logic,  
                   LoginPage login)
```

RegisterPage Constructor, this page sets all the frame specifications (e.g., creating buttons and text fields)

Parameters:

- logic - BankAutomated object, to process the validity of the data the user inputted and for logout
- login - LoginPage object, to be sent back to if the user wants/the register is successful

- **Method Detail**

- **paint**

```
public void paint(java.awt.Graphics g)
```

paint method, overrides the JFrame paint method in order to allow for custom graphical design

Overrides:

- paint in class java.awt.Window

Parameters:

- g - Graphics object

- **actionPerformed**

```
public void actionPerformed(java.awt.event.ActionEvent e)
```

actionPerformed method (implementing ActionListener). When the "Back To Login" button is clicked, it sends the customer back to the login page. When "Register" is selected, BA verifies all the data inputted and a message is printed if anything is invalid. Otherwise, the customer is told that the account creation was successful.

Specified by:

- actionPerformed in interface java.awt.event.ActionListener

Parameters:

- e - ActionEvent object, which listens and keeps track of any button clicks

Class ForgotPage

- java.lang.Object
- - java.awt.Component
 - java.awt.Container
 - java.awt.Window
 - java.awt.Frame
 - javax.swing.JFrame
 - ForgotPage
- All Implemented Interfaces:
java.awt.event.ActionListener, java.awt.image.ImageObserver, java.awt.MenuContainer,
java.io.Serializable, java.util.EventListener, javax.accessibility.Accessible,
javax.swing.RootPaneContainer, javax.swing.WindowConstants

```
public class ForgotPage
extends javax.swing.JFrame
implements java.awt.event.ActionListener
```

This class is a graphical implementation of the Forgot Password Page. Customers that forgot their password would be able to enter their email and request a password reset. If the email inputted is associated with an account, a prompt saying an email was sent is shown. Currently, no emails are actually sent, but the system can be extended to be able to actually send emails eventually (next iteration).

See Also:

[Serialized Form](#)

- - **Nested Class Summary**
 - **Nested classes/interfaces inherited from class javax.swing.JFrame**

javax.swing.JFrame.AccessibleJFrame
 - **Nested classes/interfaces inherited from class java.awt.Frame**

java.awt.Frame.AccessibleAWTFrame
 - **Nested classes/interfaces inherited from class java.awt.Window**

java.awt.Window.AccessibleAWTWindow, java.awt.Window.Type
 - **Nested classes/interfaces inherited from class java.awt.Container**

java.awt.Container.AccessibleAWTContainer
 - **Nested classes/interfaces inherited from class java.awt.Component**

java.awt.Component.AccessibleAWTComponent, java.awt.Component.BaselineResizeBehavior,
java.awt.Component.BltBufferStrategy, java.awt.Component.FlipBufferStrategy
 - **Field Summary**
 - **Fields inherited from class javax.swing.JFrame**

accessibleContext, rootPane, rootPaneCheckingEnabled

▪ Fields inherited from class `java.awt.Frame`

CROSSHAIR_CURSOR, DEFAULT_CURSOR, E_RESIZE_CURSOR, HAND_CURSOR, ICONIFIED, MAXIMIZED_BOTH, MAXIMIZED_HORIZ, MAXIMIZED_VERT, MOVE_CURSOR, N_RESIZE_CURSOR, NE_RESIZE_CURSOR, NORMAL, NW_RESIZE_CURSOR, S_RESIZE_CURSOR, SE_RESIZE_CURSOR, SW_RESIZE_CURSOR, TEXT_CURSOR, W_RESIZE_CURSOR, WAIT_CURSOR

▪ Fields inherited from class `java.awt.Component`

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

▪ Fields inherited from interface `java.awt.image.ImageObserver`

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS

▪ Fields inherited from interface `javax.swing.WindowConstants`

DISPOSE_ON_CLOSE, DO_NOTHING_ON_CLOSE, EXIT_ON_CLOSE, HIDE_ON_CLOSE

◦ Constructor Summary

Constructors	
Constructor	Description
ForgotPage (BankAutomated logic, LoginPage login)	ForgotPage Constructor, this constructor creates all the frame specifications for the Forgot Password Page, e.g.

◦ Method Summary

All Methods Instance Methods Concrete Methods		
Modifier and Type	Method	Description
void	actionPerformed (<code>java.awt.event.ActionEvent e</code>)	actionPerformed method (implementing ActionListener).
void	paint (<code>java.awt.Graphics g</code>)	paint method, overrides the JFrame paint method in order to allow for custom graphical design

▪ Methods inherited from class `javax.swing.JFrame`

addImpl, createRootPane, frameInit, getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, isRootPaneCheckingEnabled, paramString, processWindowEvent, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setIconImage, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, setTransferHandler, update

▪ Methods inherited from class `java.awt.Frame`

addNotify, getCursorType, getExtendedState, getFrames, getIconImage, getMaximizedBounds, getMenuBar, getState, getTitle, isResizable, isUndecorated, remove, removeNotify, setBackground, setCursor, setExtendedState, setMaximizedBounds, setMenuBar, setOpacity, setResizable, setShape, setState, setTitle, setUndecorated

▪ Methods inherited from class `java.awt.Window`

addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getBackground, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOpacity, getOwnedWindows, getOwner, getOwnerlessWindows, getShape, getToolkit, getType, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isAutoRequestFocus, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isOpaque, isShowing, isValidRoot, pack, postEvent, processEvent, processWindowFocusEvent, processWindowStateEvent, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setAutoRequestFocus, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImages, setLocation, setLocation, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setType, setVisible, show, toBack, toFront

■ Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalPolicy, getInsets, getLayout, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, print, printComponents, processContainerEvent, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, transferFocusDownCycle, validate, validateTree

■ Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, contains, createImage, createImage, createVolatileImage, createVolatileImage, disable, disableEvents, dispatchEvent, enable, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBaseline, getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocation, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, prepareImage, prepareImage, printAll, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processKeyEvent, processMouseEvent, processMouseMotionEvent, processMouseWheelEvent, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener,

removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, requestFocus, requestFocus, requestFocus, requestFocus, requestFocusInWindow, requestFocusInWindow, requestFocusInWindow, resize, resize, revalidate, setComponentOrientation, setDropTarget, setEnabled, setFocusable, setFocusTraversalKeysEnabled, setForeground, setIgnoreRepaint, setLocale, setMaximumSize, setMixingCutoutShape, setName, setPreferredSize, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle

■ **Methods inherited from class java.lang.Object**

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

■ **Methods inherited from interface java.awt.MenuContainer**

getFont, postEvent

• ○ **Constructor Detail**

■ **ForgotPage**

```
public ForgotPage(BankAutomated logic,  
                 LoginPage login)
```

ForgotPage Constructor, this constructor creates all the frame specifications for the Forgot Password Page, e.g. the text field for the user to input their email.

Parameters:

logic - BankAutomated object

login - LoginPage object

○ **Method Detail**

■ **paint**

```
public void paint(java.awt.Graphics g)
```

paint method, overrides the JFrame paint method in order to allow for custom graphical design

Overrides:

paint in class java.awt.Window

Parameters:

g - Graphics object

■ **actionPerformed**

```
public void actionPerformed(java.awt.event.ActionEvent e)
```

actionPerformed method (implementing ActionListener). It calls all the logic through BankAutomated when certain conditions are met through the ActionEvent parameter (e.g., a button is clicked). It also displays whether a reset password email was sent successfully or otherwise.

Specified by:

actionPerformed in interface java.awt.event.ActionListener

Parameters:

e - ActionEvent object, which listens and keeps track of any button clicks

Class HomePage

- java.lang.Object
- - java.awt.Component
 - - java.awt.Container
 - - java.awt.Window
 - - java.awt.Frame
 - - javax.swing.JFrame
 - HomePage
- All Implemented Interfaces:
java.awt.event.ActionListener, java.awt.image.ImageObserver, java.awt.MenuContainer,
java.io.Serializable, java.util.EventListener, javax.accessibility.Accessible,
javax.swing.RootPaneContainer, javax.swing.WindowConstants

```
public class HomePage
extends javax.swing.JFrame
implements java.awt.event.ActionListener
```

This class is the graphical implementation for the customer's homepage, which is displayed when the customer logs in or when they leave the homepage and select to go back to it. This page shows the customer their account details. All use cases besides registering and logging in begin at this page

See Also:

[Serialized Form](#)

- - **Nested Class Summary**
 - **Nested classes/interfaces inherited from class javax.swing.JFrame**

javax.swing.JFrame.AccessibleJFrame
 - **Nested classes/interfaces inherited from class java.awt.Frame**

java.awt.Frame.AccessibleAWTFrame
 - **Nested classes/interfaces inherited from class java.awt.Window**

java.awt.Window.AccessibleAWTWindow, java.awt.Window.Type
 - **Nested classes/interfaces inherited from class java.awt.Container**

java.awt.Container.AccessibleAWTContainer
 - **Nested classes/interfaces inherited from class java.awt.Component**

java.awt.Component.AccessibleAWTComponent, java.awt.Component.BaselineResizeBehavior,
java.awt.Component.BltBufferStrategy, java.awt.Component.FlipBufferStrategy
 - **Field Summary**
 - **Fields inherited from class javax.swing.JFrame**

accessibleContext, rootPane, rootPaneCheckingEnabled

■ Fields inherited from class `java.awt.Frame`

CROSSHAIR_CURSOR, DEFAULT_CURSOR, E_RESIZE_CURSOR, HAND_CURSOR, ICONIFIED, MAXIMIZED_BOTH, MAXIMIZED_HORIZ, MAXIMIZED_VERT, MOVE_CURSOR, N_RESIZE_CURSOR, NE_RESIZE_CURSOR, NORMAL, NW_RESIZE_CURSOR, S_RESIZE_CURSOR, SE_RESIZE_CURSOR, SW_RESIZE_CURSOR, TEXT_CURSOR, W_RESIZE_CURSOR, WAIT_CURSOR

■ Fields inherited from class `java.awt.Component`

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

■ Fields inherited from interface `java.awt.image.ImageObserver`

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS

■ Fields inherited from interface `javax.swing.WindowConstants`

DISPOSE_ON_CLOSE, DO_NOTHING_ON_CLOSE, EXIT_ON_CLOSE, HIDE_ON_CLOSE

○ Constructor Summary

Constructors

Constructor

Description

[HomePage\(LoginPage](#) previous, [BankAutomated](#) BA, [CA](#) customer) [HomePage](#) Constructor.

○ Method Summary

All Methods [Instance Methods](#) [Concrete Methods](#)

Modifier and Type

Method

Description

void	actionPerformed (<code>java.awt.event.ActionEvent e</code>)	actionPerformed method (implementing ActionListener).
void	paint (<code>java.awt.Graphics g</code>)	paint method, overrides the JFrame paint method in order to allow for custom graphical design

■ Methods inherited from class `javax.swing.JFrame`

addImpl, createRootPane, frameInit, getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, isRootPaneCheckingEnabled, paramString, processWindowEvent, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setIconImage, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, setTransferHandler, update

■ Methods inherited from class `java.awt.Frame`

addNotify, getCursorType, getExtendedState, getFrames, getIconImage, getMaximizedBounds, getMenuBar, getState, getTitle, isResizable, isUndecorated, remove, removeNotify, setBackground, setCursor, setExtendedState, setMaximizedBounds, setMenuBar, setOpacity, setResizable, setShape, setState, setTitle, setUndecorated

■ Methods inherited from class `java.awt.Window`

addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getBackground, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOpacity, getOwnedWindows, getOwner, getOwnerlessWindows, getShape, getToolkit, getType, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isAutoRequestFocus, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isOpaque, isShowing, isValidRoot, pack, postEvent, processEvent, processWindowFocusEvent, processWindowStateEvent, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setAutoRequestFocus, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImages, setLocation, setLocation, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setType, setVisible, show, toBack, toFront

■ Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalPolicy, getInsets, getLayout, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, print, printComponents, processContainerEvent, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, transferFocusDownCycle, validate, validateTree

■ Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, contains, createImage, createImage, createVolatileImage, createVolatileImage, disable, disableEvents, dispatchEvent, enable, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBaseline, getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocation, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, prepareImage, prepareImage, printAll, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processKeyEvent, processMouseEvent, processMouseMotionEvent, processMouseWheelEvent, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener,

removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, requestFocus, requestFocus, requestFocus, requestFocus, requestFocusInWindow, requestFocusInWindow, requestFocusInWindow, resize, resize, revalidate, setComponentOrientation, setDropTarget, setEnabled, setFocusable, setFocusTraversalKeysEnabled, setForeground, setIgnoreRepaint, setLocale, setMaximumSize, setMixingCutoutShape, setName, setPreferredSize, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle

■ **Methods inherited from class java.lang.Object**

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

■ **Methods inherited from interface java.awt.MenuContainer**

getFont, postEvent

• ○ **Constructor Detail**

■ **HomePage**

```
public HomePage(LoginPage previous,  
               BankAutomated BA,  
               CA customer)
```

HomePage Constructor. This creates all the frame specification for the homepage of the customer which displays when the customer logs in. This screen shows the customer's accounts balance, their bank number, and gives them multiple options to select from (e.g., transfer, settings, logout, etc.).

Parameters:

previous - LoginPage object for the user to return to if they log out from the homepage
BA - BankAutomated object to handle all the logic and be passed on to the pages that stem from homepage (e.g., transfer pages).
customer - CA object, the customer that is logged in

○ **Method Detail**

■ **paint**

```
public void paint(java.awt.Graphics g)
```

paint method, overrides the JFrame paint method in order to allow for custom graphical design

Overrides:

paint in class java.awt.Window

Parameters:

g - Graphics object

■ **actionPerformed**

```
public void actionPerformed(java.awt.event.ActionEvent e)
```

actionPerformed method (implementing ActionListener). It displays different options depending on what the user clicks on in the homepage, and it controls which page to display next depending on that.

Specified by:

actionPerformed in interface java.awt.event.ActionListener

Parameters:

e - ActionEvent object, which listens and keeps track of any button clicks

Class BankTransferPage

- java.lang.Object
- - java.awt.Component
 - - java.awt.Container
 - - java.awt.Window
 - - java.awt.Frame
 - - javax.swing.JFrame
 - BankTransferPage
- All Implemented Interfaces:
java.awt.event.ActionListener, java.awt.image.ImageObserver, java.awt.MenuContainer,
java.io.Serializable, java.util.EventListener, javax.accessibility.Accessible,
javax.swing.RootPaneContainer, javax.swing.WindowConstants

```
public class BankTransferPage
extends javax.swing.JFrame
implements java.awt.event.ActionListener
```

This class is a graphical implementation of the Bank Transfer page where customers would be able to make bank transfers (either from chequing or savings) to any user if they have their account number. Currently, this class assumes that any 5-digit number is a valid bank account number. If a user with that account number exists within the system, then the money is automatically deposited to their chequing account. Otherwise, a prompt saying it is an external transfer is shown.

See Also:

[Serialized Form](#)

- - **Nested Class Summary**
 - **Nested classes/interfaces inherited from class javax.swing.JFrame**

javax.swing.JFrame.AccessibleJFrame
 - **Nested classes/interfaces inherited from class java.awt.Frame**

java.awt.Frame.AccessibleAWTFrame
 - **Nested classes/interfaces inherited from class java.awt.Window**

java.awt.Window.AccessibleAWTWindow, java.awt.Window.Type
 - **Nested classes/interfaces inherited from class java.awt.Container**

java.awt.Container.AccessibleAWTContainer
 - **Nested classes/interfaces inherited from class java.awt.Component**

java.awt.Component.AccessibleAWTComponent, java.awt.Component.BaselineResizeBehavior,
java.awt.Component.BltBufferStrategy, java.awt.Component.FlipBufferStrategy
 - **Field Summary**

- **Fields inherited from class javax.swing.JFrame**

accessibleContext, rootPane, rootPaneCheckingEnabled

- **Fields inherited from class java.awt.Frame**

CROSSHAIR_CURSOR, DEFAULT_CURSOR, E_RESIZE_CURSOR, HAND_CURSOR, ICONIFIED, MAXIMIZED_BOTH, MAXIMIZED_HORIZ, MAXIMIZED_VERT, MOVE_CURSOR, N_RESIZE_CURSOR, NE_RESIZE_CURSOR, NORMAL, NW_RESIZE_CURSOR, S_RESIZE_CURSOR, SE_RESIZE_CURSOR, SW_RESIZE_CURSOR, TEXT_CURSOR, W_RESIZE_CURSOR, WAIT_CURSOR

- **Fields inherited from class java.awt.Component**

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

- **Fields inherited from interface java.awt.image.ImageObserver**

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS

- **Fields inherited from interface javax.swing.WindowConstants**

DISPOSE_ON_CLOSE, DO_NOTHING_ON_CLOSE, EXIT_ON_CLOSE, HIDE_ON_CLOSE

- **Constructor Summary**

Constructor	Constructors
BankTransferPage (BankAutomated BA, HomePage home, CA customer, LoginPage login)	Description This constructor creates all the frame specifications for when the customer selects "Transfer" and then "Bank Transfer" in the system (i.e., buttons, labels, etc.)

- **Method Summary**

All Methods Instance Methods Concrete Methods		
Modifier and Type	Method	Description
void	actionPerformed (java.awt.event.ActionEvent e)	actionPerformed method (implementing ActionListener).
void	paint (java.awt.Graphics g)	paint method, overrides the JFrame paint method in order to allow for custom graphical design

- **Methods inherited from class javax.swing.JFrame**

addImpl, createRootPane, frameInit, getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, isRootPaneCheckingEnabled, paramString, processWindowEvent, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setIconImage, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, setTransferHandler, update

- **Methods inherited from class java.awt.Frame**

addNotify, getCursorType, getExtendedState, getFrames, getIconImage, getMaximizedBounds, getMenuBar, getState, getTitle, isResizable, isUndecorated, remove, removeNotify,

setBackground, setCursor, setExtendedState, setMaximizedBounds, setMenuBar, setOpacity, setResizable, setShape, setState, setTitle, setUndecorated

■ Methods inherited from class java.awt.Window

addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getBackground, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOpacity, getOwnedWindows, getOwner, getOwnerlessWindows, getShape, getToolkit, getType, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isAutoRequestFocus, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isOpaque, isShowing, isValidRoot, pack, postEvent, processEvent, processWindowFocusEvent, processWindowStateEvent, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setAutoRequestFocus, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImages, setLocation, setLocation, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setType, setVisible, show, toBack, toFront

■ Methods inherited from class java.awt.Container

add, add, add, add, add, add, addContainerListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalPolicy, getInsets, getLayout, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, print, printComponents, processContainerEvent, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, transferFocusDownCycle, validate, validateTree

■ Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, contains, createImage, createImage, createVolatileImage, createVolatileImage, disable, disableEvents, dispatchEvent, enable, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBaseline, getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocation, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, prepareImage, prepareImage, printAll, processComponentEvent,

processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processKeyEvent, processMouseEvent, processMouseMotionEvent, processMouseWheelEvent, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, requestFocus, requestFocus, requestFocus, requestFocus, requestFocusInWindow, requestFocusInWindow, requestFocusInWindow, resize, resize, revalidate, setComponentOrientation, setDropTarget, setEnabled, setFocusable, setFocusTraversalKeysEnabled, setForeground, setIgnoreRepaint, setLocale, setMaximumSize, setMixingCutoutShape, setName, setPreferredSize, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle

■ Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

■ Methods inherited from interface java.awt.MenuContainer

getFont, postEvent

- **Constructor Detail**

- **BankTransferPage**

```
public BankTransferPage(BankAutomated BA,  
                        HomePage home,  
                        CA customer,  
                        LoginPage login)
```

This constructor creates all the frame specifications for when the customer selects "Transfer" and then "Bank Transfer" in the system (i.e., buttons, labels, etc.)

Parameters:

BA - BankAutomated object
home - HomePage object
customer - CA object
login - LoginPage object

- **Method Detail**

- **paint**

```
public void paint(java.awt.Graphics g)
```

paint method, overrides the JFrame paint method in order to allow for custom graphical design

Overrides:

paint in class java.awt.Window

Parameters:

g - Graphics object

- **actionPerformed**

```
public void actionPerformed(java.awt.event.ActionEvent e)
```

actionPerformed method (implementing ActionListener). It calls all the logic through BankAutomated when certain conditions are met through the ActionEvent parameter (e.g., a button is clicked). It also

displays success/failure methods depending on the conditions, as well as controls the frame display (e.g., if back to home is clicked, it displays the homepage frame and stops displaying the transfer one).

Specified by:

actionPerformed in interface `java.awt.event.ActionListener`

Parameters:

e - `ActionEvent` object, which listens and keeps track of any button clicks

Class ETransferPage

- java.lang.Object
- - java.awt.Component
 - ■ java.awt.Container
 - ■ java.awt.Window
 - ■ ■ java.awt.Frame
 - ■ ■ javax.swing.JFrame
 - ■ ■ ETransferPage
- All Implemented Interfaces:
java.awt.event.ActionListener, java.awt.image.ImageObserver, java.awt.MenuContainer,
java.io.Serializable, java.util.EventListener, javax.accessibility.Accessible,
javax.swing.RootPaneContainer, javax.swing.WindowConstants

```
public class ETransferPage
extends javax.swing.JFrame
implements java.awt.event.ActionListener
```

This class is a graphical implementation of the E-Transfer page where customers would be able to make e-transfers (either from chequing or savings) to any user if they have their email. Currently, this class assumes that any valid email (checked by BankAutomated) can receive an e-transfer. If the email is within BCS, the money is automatically deposited to chequing account of the user with that email, otherwise, a prompt saying it's an external transfer is shown.

See Also:

[Serialized Form](#)

- - **Nested Class Summary**
 - **Nested classes/interfaces inherited from class javax.swing.JFrame**

javax.swing.JFrame.AccessibleJFrame
 - **Nested classes/interfaces inherited from class java.awt.Frame**

java.awt.Frame.AccessibleAWTFrame
 - **Nested classes/interfaces inherited from class java.awt.Window**

java.awt.Window.AccessibleAWTWindow, java.awt.Window.Type
 - **Nested classes/interfaces inherited from class java.awt.Container**

java.awt.Container.AccessibleAWTContainer
 - **Nested classes/interfaces inherited from class java.awt.Component**

java.awt.Component.AccessibleAWTComponent, java.awt.Component.BaselineResizeBehavior,
java.awt.Component.BltBufferStrategy, java.awt.Component.FlipBufferStrategy
 - **Field Summary**

- **Fields inherited from class javax.swing.JFrame**

accessibleContext, rootPane, rootPaneCheckingEnabled

- **Fields inherited from class java.awt.Frame**

CROSSHAIR_CURSOR, DEFAULT_CURSOR, E_RESIZE_CURSOR, HAND_CURSOR, ICONIFIED, MAXIMIZED_BOTH, MAXIMIZED_HORIZ, MAXIMIZED_VERT, MOVE_CURSOR, N_RESIZE_CURSOR, NE_RESIZE_CURSOR, NORMAL, NW_RESIZE_CURSOR, S_RESIZE_CURSOR, SE_RESIZE_CURSOR, SW_RESIZE_CURSOR, TEXT_CURSOR, W_RESIZE_CURSOR, WAIT_CURSOR

- **Fields inherited from class java.awt.Component**

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

- **Fields inherited from interface java.awt.image.ImageObserver**

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS

- **Fields inherited from interface javax.swing.WindowConstants**

DISPOSE_ON_CLOSE, DO_NOTHING_ON_CLOSE, EXIT_ON_CLOSE, HIDE_ON_CLOSE

- **Constructor Summary**

Constructor	Description
ETransferPage (BankAutomated BA, HomePage home, CA customer, LoginPage login)	ETransferPage Constructor, this creates all the frame specifications when the customer selects "Transfer" then "Make an e-Transfer" from their homepage (e.g., buttons and labels).

- **Method Summary**

All Methods Instance Methods Concrete Methods		
Modifier and Type	Method	Description
void	actionPerformed (java.awt.event.ActionEvent e)	actionPerformed method (implementing ActionListener).
void	paint (java.awt.Graphics g)	paint method, overrides the JFrame paint method in order to allow for custom graphical design

- **Methods inherited from class javax.swing.JFrame**

addImpl, createRootPane, frameInit, getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, isRootPaneCheckingEnabled, paramString, processWindowEvent, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setIconImage, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, setTransferHandler, update

- **Methods inherited from class java.awt.Frame**

addNotify, getCursorType, getExtendedState, getFrames, getIconImage, getMaximizedBounds, getMenuBar, getState, getTitle, isResizable, isUndecorated, remove, removeNotify,

setBackground, setCursor, setExtendedState, setMaximizedBounds, setMenuBar, setOpacity, setResizable, setShape, setState, setTitle, setUndecorated

■ Methods inherited from class java.awt.Window

addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getBackground, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOpacity, getOwnedWindows, getOwner, getOwnerlessWindows, getShape, getToolkit, getType, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isAutoRequestFocus, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isOpaque, isShowing, isValidRoot, pack, postEvent, processEvent, processWindowFocusEvent, processWindowStateEvent, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setAutoRequestFocus, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImages, setLocation, setLocation, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setType, setVisible, show, toBack, toFront

■ Methods inherited from class java.awt.Container

add, add, add, add, add, add, addContainerListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalPolicy, getInsets, getLayout, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, print, printComponents, processContainerEvent, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, transferFocusDownCycle, validate, validateTree

■ Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, contains, createImage, createImage, createVolatileImage, createVolatileImage, disable, disableEvents, dispatchEvent, enable, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBaseline, getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocation, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, prepareImage, prepareImage, printAll, processComponentEvent,

processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processKeyEvent, processMouseEvent, processMouseMotionEvent, processMouseWheelEvent, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, requestFocus, requestFocus, requestFocus, requestFocus, requestFocusInWindow, requestFocusInWindow, requestFocusInWindow, resize, resize, revalidate, setComponentOrientation, setDropTarget, setEnabled, setFocusable, setFocusTraversalKeysEnabled, setForeground, setIgnoreRepaint, setLocale, setMaximumSize, setMixingCutoutShape, setName, setPreferredSize, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle

■ Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

■ Methods inherited from interface java.awt.MenuContainer

getFont, postEvent

• ○ Constructor Detail

■ ETransferPage

```
public ETransferPage(BankAutomated BA,  
                    HomePage home,  
                    CA customer,  
                    LoginPage login)
```

ETransferPage Constructor, this creates all the frame specifications when the customer selects "Transfer" then "Make an e-Transfer" from their homepage (e.g., buttons and labels).

Parameters:

BA - BankAutomated object
home - HomePage object
customer - CA object
login - LoginPage object

○ Method Detail

■ paint

```
public void paint(java.awt.Graphics g)
```

paint method, overrides the JFrame paint method in order to allow for custom graphical design

Overrides:

paint in class java.awt.Window

Parameters:

g - Graphics object

■ actionPerformed

```
public void actionPerformed(java.awt.event.ActionEvent e)
```

actionPerformed method (implementing ActionListener). It calls all the logic through BankAutomated when certain conditions are met through the ActionEvent parameter (e.g., a button is clicked). It also

displays success/failure methods depending on the conditions (e.g., prints a message if the user does not have enough funds for the transfer), as well as controls the frame display.

Specified by:

actionPerformed in interface `java.awt.event.ActionListener`

Parameters:

e - `ActionEvent` object, which listens and keeps track of any button clicks

Class TransferFundsPage

- java.lang.Object
- - java.awt.Component
 - java.awt.Container
 - java.awt.Window
 - java.awt.Frame
 - javax.swing.JFrame
 - TransferFundsPage
- All Implemented Interfaces:
java.awt.event.ActionListener, java.awt.image.ImageObserver, java.awt.MenuContainer,
java.io.Serializable, java.util.EventListener, javax.accessibility.Accessible,
javax.swing.RootPaneContainer, javax.swing.WindowConstants

```
public class TransferFundsPage
extends javax.swing.JFrame
implements java.awt.event.ActionListener
```

This class is the graphical implementation of the Transfer Funds Page. This page allows users to transfer money between their chequing and savings account in both directions.

See Also:

[Serialized Form](#)

- - **Nested Class Summary**

- **Nested classes/interfaces inherited from class javax.swing.JFrame**

javax.swing.JFrame.AccessibleJFrame

- **Nested classes/interfaces inherited from class java.awt.Frame**

java.awt.Frame.AccessibleAWTFrame

- **Nested classes/interfaces inherited from class java.awt.Window**

java.awt.Window.AccessibleAWTWindow, java.awt.Window.Type

- **Nested classes/interfaces inherited from class java.awt.Container**

java.awt.Container.AccessibleAWTContainer

- **Nested classes/interfaces inherited from class java.awt.Component**

java.awt.Component.AccessibleAWTComponent, java.awt.Component.BaselineResizeBehavior,
java.awt.Component.BltBufferStrategy, java.awt.Component.FlipBufferStrategy

- **Field Summary**

- **Fields inherited from class javax.swing.JFrame**

accessibleContext, rootPane, rootPaneCheckingEnabled

- **Fields inherited from class java.awt.Frame**

CROSSHAIR_CURSOR, DEFAULT_CURSOR, E_RESIZE_CURSOR, HAND_CURSOR, ICONIFIED, MAXIMIZED_BOTH, MAXIMIZED_HORIZ, MAXIMIZED_VERT, MOVE_CURSOR, N_RESIZE_CURSOR, NE_RESIZE_CURSOR, NORMAL, NW_RESIZE_CURSOR, S_RESIZE_CURSOR, SE_RESIZE_CURSOR, SW_RESIZE_CURSOR, TEXT_CURSOR, W_RESIZE_CURSOR, WAIT_CURSOR

- **Fields inherited from class java.awt.Component**

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

- **Fields inherited from interface java.awt.image.ImageObserver**

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS

- **Fields inherited from interface javax.swing.WindowConstants**

DISPOSE_ON_CLOSE, DO_NOTHING_ON_CLOSE, EXIT_ON_CLOSE, HIDE_ON_CLOSE

- **Constructor Summary**

Constructors	
Constructor	Description
TransferFundsPage (BankAutomated BA, HomePage home, CA customer, LoginPage login)	TransferFundsPage Constructor, this sets all the frame specifications for this page

- **Method Summary**

All Methods Instance Methods Concrete Methods		
Modifier and Type	Method	Description
void	actionPerformed (java.awt.event.ActionEvent e)	actionPerformed method (implementing ActionListener).
void	paint (java.awt.Graphics g)	paint method, overrides the JFrame paint method in order to allow for custom graphical design

- **Methods inherited from class javax.swing.JFrame**

addImpl, createRootPane, frameInit, getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, isRootPaneCheckingEnabled, paramString, processWindowEvent, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setIconImage, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, setTransferHandler, update

- **Methods inherited from class java.awt.Frame**

addNotify, getCursorType, getExtendedState, getFrames, getIconImage, getMaximizedBounds, getMenuBar, getState, getTitle, isResizable, isUndecorated, remove, removeNotify, setBackground, setCursor, setExtendedState, setMaximizedBounds, setMenuBar, setOpacity, setResizable, setShape, setState, setTitle, setUndecorated

- **Methods inherited from class java.awt.Window**

addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getBackground, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOpacity, getOwnedWindows, getOwner, getOwnerlessWindows, getShape, getToolkit, getType, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isAutoRequestFocus, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isOpaque, isShowing, isValidRoot, pack, postEvent, processEvent, processWindowFocusEvent, processWindowStateEvent, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setAutoRequestFocus, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImages, setLocation, setLocation, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setType, setVisible, show, toBack, toFront

■ Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalPolicy, getInsets, getLayout, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, print, printComponents, processContainerEvent, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, transferFocusDownCycle, validate, validateTree

■ Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, contains, createImage, createImage, createVolatileImage, createVolatileImage, disable, disableEvents, dispatchEvent, enable, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBaseline, getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocation, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, prepareImage, prepareImage, printAll, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processKeyEvent, processMouseEvent, processMouseMotionEvent, processMouseWheelEvent, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener,

removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, requestFocus, requestFocus, requestFocus, requestFocus, requestFocusInWindow, requestFocusInWindow, requestFocusInWindow, resize, resize, revalidate, setComponentOrientation, setDropTarget, setEnabled, setFocusable, setFocusTraversalKeysEnabled, setForeground, setIgnoreRepaint, setLocale, setMaximumSize, setMixingCutoutShape, setName, setPreferredSize, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle

■ Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

■ Methods inherited from interface java.awt.MenuContainer

getFont, postEvent

- ## ◦ Constructor Detail

- **TransferFundsPage**

```
public TransferFundsPage(BankAutomated BA,  
                        HomePage home,  
                        CA customer,  
                        LoginPage login)
```

TransferFundsPage Constructor, this sets all the frame specifications for this page

Parameters:

BA - BankAutomated object, to process the logout and logic of transferring.

home - HomePage object, for the customer to go back to their homepage when they are done

customer - CA object, the customer that is logged in

login - LoginPage object, used to create a new HomePage object to ensure all the updates will be visible

- **Method Detail**

- **paint**

```
public void paint(java.awt.Graphics g)
```

paint method, overrides the JFrame paint method in order to allow for custom graphical design

Overrides:

paint in class java.awt.Window

Parameters:

g - Graphics object

- **actionPerformed**

```
public void actionPerformed(java.awt.event.ActionEvent e)
```

actionPerformed method (implementing ActionListener). When the "Back To Home" button is clicked, it sends the customer back to their homepage. When "Complete Transaction" is selected, BA carries out the logic behind the transfer and the funds and transaction histories are updated.

Specified by:

actionPerformed in interface java.awt.event.ActionListener

Parameters:

e - ActionEvent object, which listens and keeps track of any button clicks

Class ChequingHistoryPage

- java.lang.Object
- - java.awt.Component
 - - java.awt.Container
 - - java.awt.Window
 - - java.awt.Frame
 - - javax.swing.JFrame
 - ChequingHistoryPage
- All Implemented Interfaces:
java.awt.event.ActionListener, java.awt.image.ImageObserver, java.awt.MenuContainer,
java.io.Serializable, java.util.EventListener, javax.accessibility.Accessible,
javax.swing.RootPaneContainer, javax.swing.WindowConstants

```
public class ChequingHistoryPage
extends javax.swing.JFrame
implements java.awt.event.ActionListener
```

This class is the graphical implementation of the customer's chequing account transaction history. It displays the last 6 transactions the customer did with their chequing account.

See Also:

[Serialized Form](#)

- - **Nested Class Summary**

- **Nested classes/interfaces inherited from class javax.swing.JFrame**

javax.swing.JFrame.AccessibleJFrame

- **Nested classes/interfaces inherited from class java.awt.Frame**

java.awt.Frame.AccessibleAWTFrame

- **Nested classes/interfaces inherited from class java.awt.Window**

java.awt.Window.AccessibleAWTWindow, java.awt.Window.Type

- **Nested classes/interfaces inherited from class java.awt.Container**

java.awt.Container.AccessibleAWTContainer

- **Nested classes/interfaces inherited from class java.awt.Component**

java.awt.Component.AccessibleAWTComponent, java.awt.Component.BaselineResizeBehavior,
java.awt.Component.BltBufferStrategy, java.awt.Component.FlipBufferStrategy

- **Field Summary**

- **Fields inherited from class javax.swing.JFrame**

accessibleContext, rootPane, rootPaneCheckingEnabled

■ Fields inherited from class `java.awt.Frame`

CROSSHAIR_CURSOR, DEFAULT_CURSOR, E_RESIZE_CURSOR, HAND_CURSOR, ICONIFIED, MAXIMIZED_BOTH, MAXIMIZED_HORIZ, MAXIMIZED_VERT, MOVE_CURSOR, N_RESIZE_CURSOR, NE_RESIZE_CURSOR, NORMAL, NW_RESIZE_CURSOR, S_RESIZE_CURSOR, SE_RESIZE_CURSOR, SW_RESIZE_CURSOR, TEXT_CURSOR, W_RESIZE_CURSOR, WAIT_CURSOR

■ Fields inherited from class `java.awt.Component`

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

■ Fields inherited from interface `java.awt.image.ImageObserver`

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS

■ Fields inherited from interface `javax.swing.WindowConstants`

DISPOSE_ON_CLOSE, DO_NOTHING_ON_CLOSE, EXIT_ON_CLOSE, HIDE_ON_CLOSE

○ Constructor Summary

Constructors

Constructor

Description

[ChequingHistoryPage](#)([HomePage](#) home, [BankAutomated](#) BA, [CA](#) customer) ChequingHistoryPage Constructor.

○ Method Summary

All Methods [Instance Methods](#) [Concrete Methods](#)

Modifier and Type

Method

Description

void	actionPerformed (<code>java.awt.event.ActionEvent e</code>)	actionPerformed method (implementing ActionListener).
void	paint (<code>java.awt.Graphics g</code>)	paint method, overrides the JFrame paint method in order to allow for custom graphical design

■ Methods inherited from class `javax.swing.JFrame`

addImpl, createRootPane, frameInit, getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, isRootPaneCheckingEnabled, paramString, processWindowEvent, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setIconImage, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, setTransferHandler, update

■ Methods inherited from class `java.awt.Frame`

addNotify, getCursorType, getExtendedState, getFrames, getIconImage, getMaximizedBounds, getMenuBar, getState, getTitle, isResizable, isUndecorated, remove, removeNotify, setBackground, setCursor, setExtendedState, setMaximizedBounds, setMenuBar, setOpacity, setResizable, setShape, setState, setTitle, setUndecorated

■ Methods inherited from class `java.awt.Window`

addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle,

createBufferStrategy, createBufferStrategy, dispose, getBackground, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOpacity, getOwnedWindows, getOwner, getOwnerlessWindows, getShape, getToolkit, getType, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isAutoRequestFocus, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isOpaque, isShowing, isValidRoot, pack, postEvent, processEvent, processWindowFocusEvent, processWindowStateEvent, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setAutoRequestFocus, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImages, setLocation, setLocation, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setType, setVisible, show, toBack, toFront

■ Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalPolicy, getInsets, getLayout, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, print, printComponents, processContainerEvent, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, transferFocusDownCycle, validate, validateTree

■ Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, contains, createImage, createImage, createVolatileImage, createVolatileImage, disable, disableEvents, dispatchEvent, enable, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBaseline, getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocation, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, prepareImage, prepareImage, printAll, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processKeyEvent, processMouseEvent, processMouseMotionEvent, processMouseWheelEvent, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, requestFocus, requestFocus, requestFocus, requestFocus, requestFocusInWindow,

requestFocusInWindow, requestFocusInWindow, resize, resize, revalidate,
setComponentOrientation, setDropTarget, setEnabled, setFocusable,
setFocusTraversalKeysEnabled, setForeground, setIgnoreRepaint, setLocale, setMaximumSize,
setMixingCutoutShape, setName, setPreferredSize, show, size, toString, transferFocus,
transferFocusBackward, transferFocusUpCycle

■ Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

■ Methods inherited from interface java.awt.MenuContainer

getFont, postEvent

- ## ◦ Constructor Detail

■ ChequingHistoryPage

```
public ChequingHistoryPage(HomePage home,  
                           BankAutomated BA,  
                           CA customer)
```

ChequingHistoryPage Constructor. This constructor creates all the frame specifications for when the customer clicks on their chequing account (i.e., buttons, display setup, etc.). It retrieves the customer's latest 6 chequing transaction and formats and displays them.

Parameters:

home - HomePage object to return to when the user wants to

BA - BankAutomated object to process the logout if the user exits the system

customer - CA object, the customer that is logged in

- ## Method Detail

■ paint

```
public void paint(java.awt.Graphics g)
```

paint method, overrides the JFrame paint method in order to allow for custom graphical design

Overrides:

paint in class java.awt.Window

Parameters:

g - Graphics object

■ actionPerformed

```
public void actionPerformed(java.awt.event.ActionEvent e)
```

actionPerformed method (implementing ActionListener). When the "Back To Home" button is clicked, it sends the customer back to their homepage.

Specified by:

actionPerformed in interface java.awt.event.ActionListener

Parameters:

e - ActionEvent object, which listens and keeps track of any button clicks

Class SavingsHistoryPage

- java.lang.Object
- - java.awt.Component
 - java.awt.Container
 - java.awt.Window
 - java.awt.Frame
 - javax.swing.JFrame
 - SavingsHistoryPage
- All Implemented Interfaces:
java.awt.event.ActionListener, java.awt.image.ImageObserver, java.awt.MenuContainer,
java.io.Serializable, java.util.EventListener, javax.accessibility.Accessible,
javax.swing.RootPaneContainer, javax.swing.WindowConstants

```
public class SavingsHistoryPage
extends javax.swing.JFrame
implements java.awt.event.ActionListener
```

This class is the graphical implementation of the customer's savings account transaction history It displays the last 6 transactions the customer did with their savings account.

See Also:

[Serialized Form](#)

- - **Nested Class Summary**

- **Nested classes/interfaces inherited from class javax.swing.JFrame**

javax.swing.JFrame.AccessibleJFrame

- **Nested classes/interfaces inherited from class java.awt.Frame**

java.awt.Frame.AccessibleAWTFrame

- **Nested classes/interfaces inherited from class java.awt.Window**

java.awt.Window.AccessibleAWTWindow, java.awt.Window.Type

- **Nested classes/interfaces inherited from class java.awt.Container**

java.awt.Container.AccessibleAWTContainer

- **Nested classes/interfaces inherited from class java.awt.Component**

java.awt.Component.AccessibleAWTComponent, java.awt.Component.BaselineResizeBehavior,
java.awt.Component.BltBufferStrategy, java.awt.Component.FlipBufferStrategy

- **Field Summary**

- **Fields inherited from class javax.swing.JFrame**

accessibleContext, rootPane, rootPaneCheckingEnabled

■ Fields inherited from class java.awt.Frame

CROSSHAIR_CURSOR, DEFAULT_CURSOR, E_RESIZE_CURSOR, HAND_CURSOR, ICONIFIED, MAXIMIZED_BOTH, MAXIMIZED_HORIZ, MAXIMIZED_VERT, MOVE_CURSOR, N_RESIZE_CURSOR, NE_RESIZE_CURSOR, NORMAL, NW_RESIZE_CURSOR, S_RESIZE_CURSOR, SE_RESIZE_CURSOR, SW_RESIZE_CURSOR, TEXT_CURSOR, W_RESIZE_CURSOR, WAIT_CURSOR

■ Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

■ Fields inherited from interface java.awt.image.ImageObserver

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS

■ Fields inherited from interface javax.swing.WindowConstants

DISPOSE_ON_CLOSE, DO_NOTHING_ON_CLOSE, EXIT_ON_CLOSE, HIDE_ON_CLOSE

○ Constructor Summary

Constructors

Constructor

Description

[SavingsHistoryPage](#)([HomePage](#) home, [BankAutomated](#) BA, [CA](#) customer) SavingsHistoryPage Constructor.

○ Method Summary

All Methods [Instance Methods](#) [Concrete Methods](#)

Modifier and Type

Method

Description

void	actionPerformed (java.awt.event.ActionEvent e)	actionPerformed method (implementing ActionListener).
void	paint (java.awt.Graphics g)	paint method, overrides the JFrame paint method in order to allow for custom graphical design

■ Methods inherited from class javax.swing.JFrame

addImpl, createRootPane, frameInit, getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, isRootPaneCheckingEnabled, paramString, processWindowEvent, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setIconImage, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, setTransferHandler, update

■ Methods inherited from class java.awt.Frame

addNotify, getCursorType, getExtendedState, getFrames, getIconImage, getMaximizedBounds, getMenuBar, getState, getTitle, isResizable, isUndecorated, remove, removeNotify, setBackground, setCursor, setExtendedState, setMaximizedBounds, setMenuBar, setOpacity, setResizable, setShape, setState, setTitle, setUndecorated

■ Methods inherited from class java.awt.Window

addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle,

createBufferStrategy, createBufferStrategy, dispose, getBackground, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOpacity, getOwnedWindows, getOwner, getOwnerlessWindows, getShape, getToolkit, getType, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isAutoRequestFocus, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isOpaque, isShowing, isValidRoot, pack, postEvent, processEvent, processWindowFocusEvent, processWindowStateEvent, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setAutoRequestFocus, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImages, setLocation, setLocation, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setType, setVisible, show, toBack, toFront

■ Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalPolicy, getInsets, getLayout, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, print, printComponents, processContainerEvent, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, transferFocusDownCycle, validate, validateTree

■ Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, contains, createImage, createImage, createVolatileImage, createVolatileImage, disable, disableEvents, dispatchEvent, enable, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBaseline, getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocation, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, prepareImage, prepareImage, printAll, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processKeyEvent, processMouseEvent, processMouseMotionEvent, processMouseWheelEvent, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, requestFocus, requestFocus, requestFocus, requestFocus, requestFocusInWindow,

requestFocusInWindow, requestFocusInWindow, resize, resize, revalidate,
setComponentOrientation, setDropTarget, setEnabled, setFocusable,
setFocusTraversalKeysEnabled, setForeground, setIgnoreRepaint, setLocale, setMaximumSize,
setMixingCutoutShape, setName, setPreferredSize, show, size, toString, transferFocus,
transferFocusBackward, transferFocusUpCycle

■ Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

■ Methods inherited from interface java.awt.MenuContainer

getFont, postEvent

• ◦ Constructor Detail

■ SavingsHistoryPage

```
public SavingsHistoryPage(HomePage home,  
                           BankAutomated BA,  
                           CA customer)
```

SavingsHistoryPage Constructor. This method creates all the frame specifications for when the customer clicks on their savings account (i.e., buttons, display setup, etc.). It retrieves the customer's latest 6 savings transaction and formats and displays them.

Parameters:

home - HomePage object to return to when the user wants to

BA - BankAutomated object to process the logout if the user terminates the program

customer - CA object, the customer that is logged in

◦ Method Detail

■ paint

```
public void paint(java.awt.Graphics g)
```

paint method, overrides the JFrame paint method in order to allow for custom graphical design

Overrides:

paint in class java.awt.Window

Parameters:

g - Graphics object

■ actionPerformed

```
public void actionPerformed(java.awt.event.ActionEvent e)
```

actionPerformed method (implementing ActionListener). When the "Back To Home" button is clicked, it sends the customer back to their homepage.

Specified by:

actionPerformed in interface java.awt.event.ActionListener

Parameters:

e - ActionEvent object, which listens and keeps track of any button clicks

Class NotificationSettingPage

- java.lang.Object
- - java.awt.Component
 - ■ java.awt.Container
 - ■ java.awt.Window
 - ■ java.awt.Frame
 - ■ javax.swing.JFrame
 - ■ NotificationSettingPage- All Implemented Interfaces:
java.awt.event.ActionListener, java.awt.image.ImageObserver, java.awt.MenuContainer,
java.io.Serializable, java.util.EventListener, javax.accessibility.Accessible,
javax.swing.RootPaneContainer, javax.swing.WindowConstants

```
public class NotificationSettingPage
extends javax.swing.JFrame
implements java.awt.event.ActionListener
```

This class is the graphical implementation of the notification settings page. On this page, customers can edit their notification preferences on the system, e.g. their preferred method of contact. Admins and other actors will review those preferences when getting in touch with the customer. Initially, all customer preferences are set to email by default, and they can be changed in this page.

See Also:

[Serialized Form](#)

- - **Nested Class Summary**
 - **Nested classes/interfaces inherited from class javax.swing.JFrame**

javax.swing.JFrame.AccessibleJFrame
 - **Nested classes/interfaces inherited from class java.awt.Frame**

java.awt.Frame.AccessibleAWTFrame
 - **Nested classes/interfaces inherited from class java.awt.Window**

java.awt.Window.AccessibleAWTWindow, java.awt.Window.Type
 - **Nested classes/interfaces inherited from class java.awt.Container**

java.awt.Container.AccessibleAWTContainer
 - **Nested classes/interfaces inherited from class java.awt.Component**

java.awt.Component.AccessibleAWTComponent, java.awt.Component.BaselineResizeBehavior,
java.awt.Component.BltBufferStrategy, java.awt.Component.FlipBufferStrategy
 - **Field Summary**
 - **Fields inherited from class javax.swing.JFrame**

accessibleContext, rootPane, rootPaneCheckingEnabled

▪ Fields inherited from class `java.awt.Frame`

CROSSHAIR_CURSOR, DEFAULT_CURSOR, E_RESIZE_CURSOR, HAND_CURSOR, ICONIFIED, MAXIMIZED_BOTH, MAXIMIZED_HORIZ, MAXIMIZED_VERT, MOVE_CURSOR, N_RESIZE_CURSOR, NE_RESIZE_CURSOR, NORMAL, NW_RESIZE_CURSOR, S_RESIZE_CURSOR, SE_RESIZE_CURSOR, SW_RESIZE_CURSOR, TEXT_CURSOR, W_RESIZE_CURSOR, WAIT_CURSOR

▪ Fields inherited from class `java.awt.Component`

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

▪ Fields inherited from interface `java.awt.image.ImageObserver`

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS

▪ Fields inherited from interface `javax.swing.WindowConstants`

DISPOSE_ON_CLOSE, DO_NOTHING_ON_CLOSE, EXIT_ON_CLOSE, HIDE_ON_CLOSE

◦ Constructor Summary

Constructor	Constructors Description
NotificationSettingPage (HomePage home, BankAutomated BA, CA customer)	NotificationSettingPage Constructor, this initializes all the frame specifications for the page

◦ Method Summary

All Methods Instance Methods Concrete Methods		
Modifier and Type	Method	Description
void	actionPerformed (<code>java.awt.event.ActionEvent e</code>)	actionPerformed method (implementing ActionListener).
void	paint (<code>java.awt.Graphics g</code>)	paint method, overrides the JFrame paint method in order to allow for custom graphical design

▪ Methods inherited from class `javax.swing.JFrame`

addImpl, createRootPane, frameInit, getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, isRootPaneCheckingEnabled, paramString, processWindowEvent, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setIconImage, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, setTransferHandler, update

▪ Methods inherited from class `java.awt.Frame`

addNotify, getCursorType, getExtendedState, getFrames, getIconImage, getMaximizedBounds, getMenuBar, getState, getTitle, isResizable, isUndecorated, remove, removeNotify, setBackground, setCursor, setExtendedState, setMaximizedBounds, setMenuBar, setOpacity, setResizable, setShape, setState, setTitle, setUndecorated

▪ Methods inherited from class `java.awt.Window`

addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getBackground, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOpacity, getOwnedWindows, getOwner, getOwnerlessWindows, getShape, getToolkit, getType, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isAutoRequestFocus, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isOpaque, isShowing, isValidRoot, pack, postEvent, processEvent, processWindowFocusEvent, processWindowStateEvent, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setAutoRequestFocus, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImages, setLocation, setLocation, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setType, setVisible, show, toBack, toFront

■ Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalPolicy, getInsets, getLayout, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, print, printComponents, processContainerEvent, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, transferFocusDownCycle, validate, validateTree

■ Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, contains, createImage, createImage, createVolatileImage, createVolatileImage, disable, disableEvents, dispatchEvent, enable, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBaseline, getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocation, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, prepareImage, prepareImage, printAll, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processKeyEvent, processMouseEvent, processMouseMotionEvent, processMouseWheelEvent, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener,

removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, requestFocus, requestFocus, requestFocus, requestFocus, requestFocusInWindow, requestFocusInWindow, requestFocusInWindow, resize, resize, revalidate, setComponentOrientation, setDropTarget, setEnabled, setFocusable, setFocusTraversalKeysEnabled, setForeground, setIgnoreRepaint, setLocale, setMaximumSize, setMixingCutoutShape, setName, setPreferredSize, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle

■ **Methods inherited from class java.lang.Object**

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

■ **Methods inherited from interface java.awt.MenuContainer**

getFont, postEvent

- **Constructor Detail**

- **NotificationSettingPage**

```
public NotificationSettingPage(HomePage home,  
                               BankAutomated BA,  
                               CA customer)
```

NotificationSettingPage Constructor, this initializes all the frame specifications for the page

Parameters:

home - HomePage object for the user to return to if they want

BA - BankAutomated object to carry out the logout in case the customer exits the system

customer - CA object, the customer that is currently logged in

- **Method Detail**

- **paint**

```
public void paint(java.awt.Graphics g)
```

paint method, overrides the JFrame paint method in order to allow for custom graphical design

Overrides:

paint in class java.awt.Window

Parameters:

g - Graphics object

- **actionPerformed**

```
public void actionPerformed(java.awt.event.ActionEvent e)
```

actionPerformed method (implementing ActionListener). When the "Back To Home" button is clicked, it sends the customer back to their homepage. The notification preferences the customer selects are saved to their object if the "Save Preferences" button is clicked instead.

Specified by:

actionPerformed in interface java.awt.event.ActionListener

Parameters:

e - ActionEvent object, which listens and keeps track of any button clicks

Class PrivacySettingPage

- java.lang.Object
- - java.awt.Component
 - java.awt.Container
 - java.awt.Window
 - java.awt.Frame
 - javax.swing.JFrame
 - PrivacySettingPage
- All Implemented Interfaces:
 - java.awt.event.ActionListener, java.awt.image.ImageObserver, java.awt.MenuContainer,
 - java.io.Serializable, java.util.EventListener, javax.accessibility.Accessible,
 - javax.swing.RootPaneContainer, javax.swing.WindowConstants

```
public class PrivacySettingPage
extends javax.swing.JFrame
implements java.awt.event.ActionListener
```

This class is the graphical implementation of the Privacy Setting Page. Customers can set their privacy preferences on this page. They also have the option to change their password on this page.

See Also:

[Serialized Form](#)

- - **Nested Class Summary**

- **Nested classes/interfaces inherited from class javax.swing.JFrame**

- javax.swing.JFrame.AccessibleJFrame

- **Nested classes/interfaces inherited from class java.awt.Frame**

- java.awt.Frame.AccessibleAWTFrame

- **Nested classes/interfaces inherited from class java.awt.Window**

- java.awt.Window.AccessibleAWTWindow, java.awt.Window.Type

- **Nested classes/interfaces inherited from class java.awt.Container**

- java.awt.Container.AccessibleAWTContainer

- **Nested classes/interfaces inherited from class java.awt.Component**

- java.awt.Component.AccessibleAWTComponent, java.awt.Component.BaselineResizeBehavior,
 - java.awt.Component.BltBufferStrategy, java.awt.Component.FlipBufferStrategy

- **Field Summary**

- **Fields inherited from class javax.swing.JFrame**

- accessibleContext, rootPane, rootPaneCheckingEnabled

■ Fields inherited from class java.awt.Frame

CROSSHAIR_CURSOR, DEFAULT_CURSOR, E_RESIZE_CURSOR, HAND_CURSOR, ICONIFIED, MAXIMIZED_BOTH, MAXIMIZED_HORIZ, MAXIMIZED_VERT, MOVE_CURSOR, N_RESIZE_CURSOR, NE_RESIZE_CURSOR, NORMAL, NW_RESIZE_CURSOR, S_RESIZE_CURSOR, SE_RESIZE_CURSOR, SW_RESIZE_CURSOR, TEXT_CURSOR, W_RESIZE_CURSOR, WAIT_CURSOR

■ Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

■ Fields inherited from interface java.awt.image.ImageObserver

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS

■ Fields inherited from interface javax.swing.WindowConstants

DISPOSE_ON_CLOSE, DO_NOTHING_ON_CLOSE, EXIT_ON_CLOSE, HIDE_ON_CLOSE

○ Constructor Summary

Constructor	Constructors
PrivacySettingPage (HomePage home, BankAutomated BA, CA customer)	Description PrivacySettingPage Constructor, this sets all the frame specifications for the page

○ Method Summary

All Methods Instance Methods Concrete Methods		
Modifier and Type	Method	Description
void	actionPerformed (java.awt.event.ActionEvent e)	actionPerformed method (implementing ActionListener).
void	paint (java.awt.Graphics g)	paint method, overrides the JFrame paint method in order to allow for custom graphical design

■ Methods inherited from class javax.swing.JFrame

addImpl, createRootPane, frameInit, getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, isRootPaneCheckingEnabled, paramString, processWindowEvent, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setIconImage, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, setTransferHandler, update

■ Methods inherited from class java.awt.Frame

addNotify, getCursorType, getExtendedState, getFrames, getIconImage, getMaximizedBounds, getMenuBar, getState, getTitle, isResizable, isUndecorated, remove, removeNotify, setBackground, setCursor, setExtendedState, setMaximizedBounds, setMenuBar, setOpacity, setResizable, setShape, setState, setTitle, setUndecorated

■ Methods inherited from class java.awt.Window

addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getBackground, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOpacity, getOwnedWindows, getOwner, getOwnerlessWindows, getShape, getToolkit, getType, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isAutoRequestFocus, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isOpaque, isShowing, isValidRoot, pack, postEvent, processEvent, processWindowFocusEvent, processWindowStateEvent, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setAutoRequestFocus, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImages, setLocation, setLocation, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setType, setVisible, show, toBack, toFront

■ Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalPolicy, getInsets, getLayout, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, print, printComponents, processContainerEvent, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, transferFocusDownCycle, validate, validateTree

■ Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, contains, createImage, createImage, createVolatileImage, createVolatileImage, disable, disableEvents, dispatchEvent, enable, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBaseline, getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocation, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, prepareImage, prepareImage, printAll, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processKeyEvent, processMouseEvent, processMouseMotionEvent, processMouseWheelEvent, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener,

removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, requestFocus, requestFocus, requestFocus, requestFocus, requestFocusInWindow, requestFocusInWindow, requestFocusInWindow, resize, resize, revalidate, setComponentOrientation, setDropTarget, setEnabled, setFocusable, setFocusTraversalKeysEnabled, setForeground, setIgnoreRepaint, setLocale, setMaximumSize, setMixingCutoutShape, setName, setPreferredSize, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle

■ **Methods inherited from class java.lang.Object**

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

■ **Methods inherited from interface java.awt.MenuContainer**

getFont, postEvent

- **Constructor Detail**

- **PrivacySettingPage**

```
public PrivacySettingPage(HomePage home,  
                           BankAutomated BA,  
                           CA customer)
```

PrivacySettingPage Constructor, this sets all the frame specifications for the page

Parameters:

home - HomePage object, to allow the customer to go back to their homepage

BA - BankAutomated object, to process the validity of changed (e.g., password change) and process logout

customer - CA object, the customer that is currently logged in

- **Method Detail**

- **paint**

```
public void paint(java.awt.Graphics g)
```

paint method, overrides the JFrame paint method in order to allow for custom graphical design

Overrides:

paint in class java.awt.Window

Parameters:

g - Graphics object

- **actionPerformed**

```
public void actionPerformed(java.awt.event.ActionEvent e)
```

actionPerformed method (implementing ActionListener). When the "Back To Home" button is clicked, it sends the customer back to their homepage. The customer can make changes to their privacy preferences and save them by clicking the "Save Preferences" button. They could also change their password by clicking "Change Password".

Specified by:

actionPerformed in interface java.awt.event.ActionListener

Parameters:

e - ActionEvent object, which listens and keeps track of any button clicks

Class ProfileSettingPage

- java.lang.Object
- - java.awt.Component
 - - java.awt.Container
 - - java.awt.Window
 - - java.awt.Frame
 - - javax.swing.JFrame
 - ProfileSettingPage
- All Implemented Interfaces:
java.awt.event.ActionListener, java.awt.image.ImageObserver, java.awt.MenuContainer,
java.io.Serializable, java.util.EventListener, javax.accessibility.Accessible,
javax.swing.RootPaneContainer, javax.swing.WindowConstants

```
public class ProfileSettingPage
extends javax.swing.JFrame
implements java.awt.event.ActionListener
```

This class is the graphical implementation of the Profile Settings Page. Customers can edit their profile on this page, e.g. update their email and/or address.

See Also:

[Serialized Form](#)

- - **Nested Class Summary**

- **Nested classes/interfaces inherited from class javax.swing.JFrame**

javax.swing.JFrame.AccessibleJFrame

- **Nested classes/interfaces inherited from class java.awt.Frame**

java.awt.Frame.AccessibleAWTFrame

- **Nested classes/interfaces inherited from class java.awt.Window**

java.awt.Window.AccessibleAWTWindow, java.awt.Window.Type

- **Nested classes/interfaces inherited from class java.awt.Container**

java.awt.Container.AccessibleAWTContainer

- **Nested classes/interfaces inherited from class java.awt.Component**

java.awt.Component.AccessibleAWTComponent, java.awt.Component.BaselineResizeBehavior,
java.awt.Component.BltBufferStrategy, java.awt.Component.FlipBufferStrategy

- **Field Summary**

- **Fields inherited from class javax.swing.JFrame**

accessibleContext, rootPane, rootPaneCheckingEnabled

■ Fields inherited from class java.awt.Frame

CROSSHAIR_CURSOR, DEFAULT_CURSOR, E_RESIZE_CURSOR, HAND_CURSOR, ICONIFIED, MAXIMIZED_BOTH, MAXIMIZED_HORIZ, MAXIMIZED_VERT, MOVE_CURSOR, N_RESIZE_CURSOR, NE_RESIZE_CURSOR, NORMAL, NW_RESIZE_CURSOR, S_RESIZE_CURSOR, SE_RESIZE_CURSOR, SW_RESIZE_CURSOR, TEXT_CURSOR, W_RESIZE_CURSOR, WAIT_CURSOR

■ Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

■ Fields inherited from interface java.awt.image.ImageObserver

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS

■ Fields inherited from interface javax.swing.WindowConstants

DISPOSE_ON_CLOSE, DO_NOTHING_ON_CLOSE, EXIT_ON_CLOSE, HIDE_ON_CLOSE

○ Constructor Summary

Constructor	Constructors Description
ProfileSettingPage (HomePage home, BankAutomated BA, CA customer)	ProfileSettingPage Constructor, this creates all the frame specifications for this page and graphics positioning

○ Method Summary

All Methods Instance Methods Concrete Methods		
Modifier and Type	Method	Description
void	actionPerformed (java.awt.event.ActionEvent e)	actionPerformed method (implementing ActionListener).
void	paint (java.awt.Graphics g)	paint method, overrides the JFrame paint method in order to allow for custom graphical design

■ Methods inherited from class javax.swing.JFrame

addImpl, createRootPane, frameInit, getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, isRootPaneCheckingEnabled, paramString, processWindowEvent, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setIconImage, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, setTransferHandler, update

■ Methods inherited from class java.awt.Frame

addNotify, getCursorType, getExtendedState, getFrames, getIconImage, getMaximizedBounds, getMenuBar, getState, getTitle, isResizable, isUndecorated, remove, removeNotify, setBackground, setCursor, setExtendedState, setMaximizedBounds, setMenuBar, setOpacity, setResizable, setShape, setState, setTitle, setUndecorated

■ Methods inherited from class java.awt.Window

addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getBackground, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOpacity, getOwnedWindows, getOwner, getOwnerlessWindows, getShape, getToolkit, getType, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isAutoRequestFocus, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isOpaque, isShowing, isValidRoot, pack, postEvent, processEvent, processWindowFocusEvent, processWindowStateEvent, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setAutoRequestFocus, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImages, setLocation, setLocation, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setType, setVisible, show, toBack, toFront

■ Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalPolicy, getInsets, getLayout, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, print, printComponents, processContainerEvent, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, transferFocusDownCycle, validate, validateTree

■ Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, contains, createImage, createImage, createVolatileImage, createVolatileImage, disable, disableEvents, dispatchEvent, enable, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBaseline, getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocation, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, prepareImage, prepareImage, printAll, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processKeyEvent, processMouseEvent, processMouseMotionEvent, processMouseWheelEvent, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener,

removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, requestFocus, requestFocus, requestFocus, requestFocus, requestFocusInWindow, requestFocusInWindow, requestFocusInWindow, resize, resize, revalidate, setComponentOrientation, setDropTarget, setEnabled, setFocusable, setFocusTraversalKeysEnabled, setForeground, setIgnoreRepaint, setLocale, setMaximumSize, setMixingCutoutShape, setName, setPreferredSize, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle

■ **Methods inherited from class java.lang.Object**

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

■ **Methods inherited from interface java.awt.MenuContainer**

getFont, postEvent

- **Constructor Detail**

- **ProfileSettingPage**

```
public ProfileSettingPage(HomePage home,  
                          BankAutomated BA,  
                          CA customer)
```

ProfileSettingPage Constructor, this creates all the frame specifications for this page and graphics positioning

Parameters:

home - HomePage object, for the customer to return to when they are done editing their profile
BA - BankAutomated object, to process logout if the customer terminated the program
customer - CA object, the customer that is currently logged in

- **Method Detail**

- **paint**

```
public void paint(java.awt.Graphics g)
```

paint method, overrides the JFrame paint method in order to allow for custom graphical design

Overrides:

paint in class java.awt.Window

Parameters:

g - Graphics object

- **actionPerformed**

```
public void actionPerformed(java.awt.event.ActionEvent e)
```

actionPerformed method (implementing ActionListener). When the "Back To Home" button is clicked, it sends the customer back to their homepage. When "Save Preferences" is selected, customer changes set are saved to their object after being verified by BA.

Specified by:

actionPerformed in interface java.awt.event.ActionListener

Parameters:

e - ActionEvent object, which listens and keeps track of any button clicks

Class RequestsPage

- java.lang.Object
- - java.awt.Component
 - - java.awt.Container
 - - java.awt.Window
 - - java.awt.Frame
 - - javax.swing.JFrame
 - RequestsPage
- All Implemented Interfaces:
 - java.awt.event.ActionListener, java.awt.image.ImageObserver, java.awt.MenuContainer,
 - java.io.Serializable, java.util.EventListener, javax.accessibility.Accessible,
 - javax.swing.RootPaneContainer, javax.swing.WindowConstants

```
public class RequestsPage
extends javax.swing.JFrame
implements java.awt.event.ActionListener
```

This class is the graphical implementation of the make Requests page. On this page, customers can select the type of request they want to make and then describe the details of the request. Depending on the request type, the request is sent to a different actor in the system (e.g., meeting request to admin, system changes to maintenance, etc.).

See Also:

[Serialized Form](#)

- - **Nested Class Summary**
 - **Nested classes/interfaces inherited from class javax.swing.JFrame**

javax.swing.JFrame.AccessibleJFrame
 - **Nested classes/interfaces inherited from class java.awt.Frame**

java.awt.Frame.AccessibleAWTFrame
 - **Nested classes/interfaces inherited from class java.awt.Window**

java.awt.Window.AccessibleAWTWindow, java.awt.Window.Type
 - **Nested classes/interfaces inherited from class java.awt.Container**

java.awt.Container.AccessibleAWTContainer
 - **Nested classes/interfaces inherited from class java.awt.Component**

java.awt.Component.AccessibleAWTComponent, java.awt.Component.BaselineResizeBehavior,
java.awt.Component.BltBufferStrategy, java.awt.Component.FlipBufferStrategy
 - **Field Summary**
 - **Fields inherited from class javax.swing.JFrame**

accessibleContext, rootPane, rootPaneCheckingEnabled

■ Fields inherited from class java.awt.Frame

CROSSHAIR_CURSOR, DEFAULT_CURSOR, E_RESIZE_CURSOR, HAND_CURSOR, ICONIFIED, MAXIMIZED_BOTH, MAXIMIZED_HORIZ, MAXIMIZED_VERT, MOVE_CURSOR, N_RESIZE_CURSOR, NE_RESIZE_CURSOR, NORMAL, NW_RESIZE_CURSOR, S_RESIZE_CURSOR, SE_RESIZE_CURSOR, SW_RESIZE_CURSOR, TEXT_CURSOR, W_RESIZE_CURSOR, WAIT_CURSOR

■ Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

■ Fields inherited from interface java.awt.image.ImageObserver

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS

■ Fields inherited from interface javax.swing.WindowConstants

DISPOSE_ON_CLOSE, DO_NOTHING_ON_CLOSE, EXIT_ON_CLOSE, HIDE_ON_CLOSE

○ Constructor Summary

Constructors

Constructor

Description

[RequestsPage](#)([BankAutomated](#) BA, [HomePage](#) home, [CA](#) customer) RequestsPage Constructor

○ Method Summary

All Methods [Instance Methods](#) [Concrete Methods](#)

Modifier and Type

Method

Description

void	actionPerformed (java.awt.event.ActionEvent e)	actionPerformed method (implementing ActionListener).
void	paint (java.awt.Graphics g)	paint method, overrides the JFrame paint method in order to allow for custom graphical design

■ Methods inherited from class javax.swing.JFrame

addImpl, createRootPane, frameInit, getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, isRootPaneCheckingEnabled, paramString, processWindowEvent, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setIconImage, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, setTransferHandler, update

■ Methods inherited from class java.awt.Frame

addNotify, getCursorType, getExtendedState, getFrames, getIconImage, getMaximizedBounds, getMenuBar, getState, getTitle, isResizable, isUndecorated, remove, removeNotify, setBackground, setCursor, setExtendedState, setMaximizedBounds, setMenuBar, setOpacity, setResizable, setShape, setState, setTitle, setUndecorated

■ Methods inherited from class java.awt.Window

addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getBackground, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOpacity, getOwnedWindows, getOwner, getOwnerlessWindows, getShape, getToolkit, getType, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isAutoRequestFocus, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isOpaque, isShowing, isValidRoot, pack, postEvent, processEvent, processWindowFocusEvent, processWindowStateEvent, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setAutoRequestFocus, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImages, setLocation, setLocation, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setType, setVisible, show, toBack, toFront

■ Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalPolicy, getInsets, getLayout, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, print, printComponents, processContainerEvent, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, transferFocusDownCycle, validate, validateTree

■ Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, contains, createImage, createImage, createVolatileImage, createVolatileImage, disable, disableEvents, dispatchEvent, enable, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBaseline, getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocation, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, prepareImage, prepareImage, printAll, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processKeyEvent, processMouseEvent, processMouseMotionEvent, processMouseWheelEvent, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener,

removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, requestFocus, requestFocus, requestFocus, requestFocus, requestFocusInWindow, requestFocusInWindow, requestFocusInWindow, resize, resize, revalidate, setComponentOrientation, setDropTarget, setEnabled, setFocusable, setFocusTraversalKeysEnabled, setForeground, setIgnoreRepaint, setLocale, setMaximumSize, setMixingCutoutShape, setName, setPreferredSize, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle

■ **Methods inherited from class java.lang.Object**

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

■ **Methods inherited from interface java.awt.MenuContainer**

getFont, postEvent

- **Constructor Detail**

- **RequestsPage**

```
public RequestsPage(BankAutomated BA,  
                   HomePage home,  
                   CA customer)
```

RequestsPage Constructor

Parameters:

BA - BankAutomated object, to process the logout if the customer terminates the program on this page
home - HomePage object, for the customer to return to when they are done making a request
customer - CA object, the customer that is currently logged in

- **Method Detail**

- **paint**

```
public void paint(java.awt.Graphics g)
```

paint method, overrides the JFrame paint method in order to allow for custom graphical design

Overrides:

paint in class java.awt.Window

Parameters:

g - Graphics object

- **actionPerformed**

```
public void actionPerformed(java.awt.event.ActionEvent e)
```

actionPerformed method (implementing ActionListener). When the "Back To Home" button is clicked, it sends the customer back to their homepage. When "Submit Request" is selected, customer report is made into an object and saved to their arraylist and to the correct counterpart.

Specified by:

actionPerformed in interface java.awt.event.ActionListener

Parameters:

e - ActionEvent object, which listens and keeps track of any button clicks

Class MakeReportPage

- java.lang.Object
- - java.awt.Component
 - - java.awt.Container
 - - java.awt.Window
 - - java.awt.Frame
 - - javax.swing.JFrame
 - MakeReportPage
- All Implemented Interfaces:
java.awt.event.ActionListener, java.awt.image.ImageObserver, java.awt.MenuContainer,
java.io.Serializable, java.util.EventListener, javax.accessibility.Accessible,
javax.swing.RootPaneContainer, javax.swing.WindowConstants

```
public class MakeReportPage
extends javax.swing.JFrame
implements java.awt.event.ActionListener
```

This class is the graphical implementation of the make report page. On this page, customers can report suspicious activity on their account and describe their situation. This is sent to one of the admins in the system (initialized in BankAutomated) and is reviewed by them.

See Also:

[Serialized Form](#)

- - **Nested Class Summary**
 - **Nested classes/interfaces inherited from class javax.swing.JFrame**

javax.swing.JFrame.AccessibleJFrame
 - **Nested classes/interfaces inherited from class java.awt.Frame**

java.awt.Frame.AccessibleAWTFrame
 - **Nested classes/interfaces inherited from class java.awt.Window**

java.awt.Window.AccessibleAWTWindow, java.awt.Window.Type
 - **Nested classes/interfaces inherited from class java.awt.Container**

java.awt.Container.AccessibleAWTContainer
 - **Nested classes/interfaces inherited from class java.awt.Component**

java.awt.Component.AccessibleAWTComponent, java.awt.Component.BaselineResizeBehavior,
java.awt.Component.BltBufferStrategy, java.awt.Component.FlipBufferStrategy
 - **Field Summary**
 - **Fields inherited from class javax.swing.JFrame**

accessibleContext, rootPane, rootPaneCheckingEnabled

▪ Fields inherited from class java.awt.Frame

CROSSHAIR_CURSOR, DEFAULT_CURSOR, E_RESIZE_CURSOR, HAND_CURSOR, ICONIFIED, MAXIMIZED_BOTH, MAXIMIZED_HORIZ, MAXIMIZED_VERT, MOVE_CURSOR, N_RESIZE_CURSOR, NE_RESIZE_CURSOR, NORMAL, NW_RESIZE_CURSOR, S_RESIZE_CURSOR, SE_RESIZE_CURSOR, SW_RESIZE_CURSOR, TEXT_CURSOR, W_RESIZE_CURSOR, WAIT_CURSOR

▪ Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

▪ Fields inherited from interface java.awt.image.ImageObserver

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS

▪ Fields inherited from interface javax.swing.WindowConstants

DISPOSE_ON_CLOSE, DO_NOTHING_ON_CLOSE, EXIT_ON_CLOSE, HIDE_ON_CLOSE

◦ Constructor Summary

Constructor	Constructors Description
MakeReportPage (HomePage home, BankAutomated BA, CA customer)	MakeReportPage Constructor, this frame creates all the frame specifications for the make report page

◦ Method Summary

All Methods Instance Methods Concrete Methods		
Modifier and Type	Method	Description
void	actionPerformed (java.awt.event.ActionEvent e)	actionPerformed method (implementing ActionListener).
void	paint (java.awt.Graphics g)	paint method, overrides the JFrame paint method in order to allow for custom graphical design

▪ Methods inherited from class javax.swing.JFrame

addImpl, createRootPane, frameInit, getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, isRootPaneCheckingEnabled, paramString, processWindowEvent, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setIconImage, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, setTransferHandler, update

▪ Methods inherited from class java.awt.Frame

addNotify, getCursorType, getExtendedState, getFrames, getIconImage, getMaximizedBounds, getMenuBar, getState, getTitle, isResizable, isUndecorated, remove, removeNotify, setBackground, setCursor, setExtendedState, setMaximizedBounds, setMenuBar, setOpacity, setResizable, setShape, setState, setTitle, setUndecorated

▪ Methods inherited from class java.awt.Window

addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getBackground, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOpacity, getOwnedWindows, getOwner, getOwnerlessWindows, getShape, getToolkit, getType, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isAutoRequestFocus, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isOpaque, isShowing, isValidRoot, pack, postEvent, processEvent, processWindowFocusEvent, processWindowStateEvent, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setAutoRequestFocus, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImages, setLocation, setLocation, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setType, setVisible, show, toBack, toFront

■ Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalPolicy, getInsets, getLayout, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, print, printComponents, processContainerEvent, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, transferFocusDownCycle, validate, validateTree

■ Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, contains, createImage, createImage, createVolatileImage, createVolatileImage, disable, disableEvents, dispatchEvent, enable, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBaseline, getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getLocation, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, prepareImage, prepareImage, printAll, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processKeyEvent, processMouseEvent, processMouseMotionEvent, processMouseWheelEvent, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener,

removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, requestFocus, requestFocus, requestFocus, requestFocus, requestFocusInWindow, requestFocusInWindow, requestFocusInWindow, resize, resize, revalidate, setComponentOrientation, setDropTarget, setEnabled, setFocusable, setFocusTraversalKeysEnabled, setForeground, setIgnoreRepaint, setLocale, setMaximumSize, setMixingCutoutShape, setName, setPreferredSize, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle

■ **Methods inherited from class java.lang.Object**

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

■ **Methods inherited from interface java.awt.MenuContainer**

getFont, postEvent

• ○ **Constructor Detail**

■ **MakeReportPage**

```
public MakeReportPage(HomePage home,  
                     BankAutomated BA,  
                     CA customer)
```

MakeReportPage Constructor, this frame creates all the frame specifications for the make report page

Parameters:

home - HomePage object, for the user to return to if they select 'Back To Home'

BA - BankAutomated object, to process logout if user exits the system

customer - CA object, the customer that's logged in

○ **Method Detail**

■ **paint**

```
public void paint(java.awt.Graphics g)
```

paint method, overrides the JFrame paint method in order to allow for custom graphical design

Overrides:

paint in class java.awt.Window

Parameters:

g - Graphics object

■ **actionPerformed**

```
public void actionPerformed(java.awt.event.ActionEvent e)
```

actionPerformed method (implementing ActionListener). It displays different options depending on what the user clicks on in the homepage, and it controls which page to display next depending on that.

Specified by:

actionPerformed in interface java.awt.event.ActionListener

Parameters:

e - ActionEvent object, which listens and keeps track of any button clicks

Class FindUsPage

- java.lang.Object
- - java.awt.Component
 - - java.awt.Container
 - - java.awt.Window
 - - java.awt.Frame
 - - javax.swing.JFrame
 - FindUsPage
- All Implemented Interfaces:
java.awt.event.ActionListener, java.awt.event.MouseListener, java.awt.image.ImageObserver,
java.awt.MenuContainer, java.io.Serializable, java.util.EventListener, javax.accessibility.Accessible,
javax.swing.RootPaneContainer, javax.swing.WindowConstants

```
public class FindUsPage
extends javax.swing.JFrame
implements java.awt.event.ActionListener, java.awt.event.MouseListener
```

This class is the graphical implementation of the Find Us page, where customers are able to see the location of our different branches across Canada and the US by clicking on the pin icons on the page. A pop-up describes the address of the location clicked.

See Also:

[Serialized Form](#)

- - **Nested Class Summary**
 - **Nested classes/interfaces inherited from class javax.swing.JFrame**

javax.swing.JFrame.AccessibleJFrame
 - **Nested classes/interfaces inherited from class java.awt.Frame**

java.awt.Frame.AccessibleAWTFrame
 - **Nested classes/interfaces inherited from class java.awt.Window**

java.awt.Window.AccessibleAWTWindow, java.awt.Window.Type
 - **Nested classes/interfaces inherited from class java.awt.Container**

java.awt.Container.AccessibleAWTContainer
 - **Nested classes/interfaces inherited from class java.awt.Component**

java.awt.Component.AccessibleAWTComponent, java.awt.Component.BaselineResizeBehavior,
java.awt.Component.BltBufferStrategy, java.awt.Component.FlipBufferStrategy
 - **Field Summary**
 - **Fields inherited from class javax.swing.JFrame**

accessibleContext, rootPane, rootPaneCheckingEnabled

- **Fields inherited from class java.awt.Frame**

CROSSHAIR_CURSOR, DEFAULT_CURSOR, E_RESIZE_CURSOR, HAND_CURSOR, ICONIFIED, MAXIMIZED_BOTH, MAXIMIZED_HORIZ, MAXIMIZED_VERT, MOVE_CURSOR, N_RESIZE_CURSOR, NE_RESIZE_CURSOR, NORMAL, NW_RESIZE_CURSOR, S_RESIZE_CURSOR, SE_RESIZE_CURSOR, SW_RESIZE_CURSOR, TEXT_CURSOR, W_RESIZE_CURSOR, WAIT_CURSOR

- **Fields inherited from class java.awt.Component**

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

- **Fields inherited from interface java.awt.image.ImageObserver**

ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS

- **Fields inherited from interface javax.swing.WindowConstants**

DISPOSE_ON_CLOSE, DO_NOTHING_ON_CLOSE, EXIT_ON_CLOSE, HIDE_ON_CLOSE

- **Constructor Summary**

Constructors

Constructor

Description

[FindUsPage](#)
([BankAutomated](#) BA,
[HomePage](#) previous)

FindUsPage Constructor, this constructor creates all the frame specifications for when the customer selects the "Find Us" option from their homepage (e.g. draws the location pins and adds button click listeners to them)

- **Method Summary**

All Methods [Instance Methods](#) [Concrete Methods](#)

Modifier and Type

Method

Description

void	actionPerformed (java.awt.event.ActionEvent e)	actionPerformed method (implements ActionListener).
void	mouseClicked (java.awt.event.MouseEvent e)	mouseClicked method (implements MouseListener).
void	mouseEntered (java.awt.event.MouseEvent e)	Left empty, part of implementing the MouseListener interface
void	mouseExited (java.awt.event.MouseEvent e)	Left empty, part of implementing the MouseListener interface
void	mousePressed (java.awt.event.MouseEvent e)	Left empty, part of implementing the MouseListener interface
void	mouseReleased (java.awt.event.MouseEvent e)	Left empty, part of implementing the MouseListener interface
void	paint (java.awt.Graphics g)	paint method, overrides the JFrame paint method in order to allow for custom graphical design

- **Methods inherited from class javax.swing.JFrame**

addImpl, createRootPane, frameInit, getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, isRootPaneCheckingEnabled,

paramString, processWindowEvent, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setIconImage, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, setTransferHandler, update

■ Methods inherited from class java.awt.Frame

addNotify, getCursorType, getExtendedState, getFrames, getIconImage, getMaximizedBounds, getMenuBar, getState, getTitle, isResizable, isUndecorated, remove, removeNotify, setBackground, setCursor, setExtendedState, setMaximizedBounds, setMenuBar, setOpacity, setResizable, setShape, setState, setTitle, setUndecorated

■ Methods inherited from class java.awt.Window

addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getBackground, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOpacity, getOwnedWindows, getOwner, getOwnerlessWindows, getShape, getToolkit, getType, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isAutoRequestFocus, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isOpaque, isShowing, isValidRoot, pack, postEvent, processEvent, processWindowFocusEvent, processWindowStateEvent, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setAutoRequestFocus, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImages, setLocation, setLocation, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setType, setVisible, show, toBack, toFront

■ Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalPolicy, getInsets, getLayout, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, print, printComponents, processContainerEvent, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, transferFocusDownCycle, validate, validateTree

■ Methods inherited from class java.awt.Component

action, add, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, bounds, checkImage, checkImage, coalesceEvents, contains, contains, createImage, createImage, createVolatileImage, createVolatileImage, disable, disableEvents, dispatchEvent, enable, enable, enableEvents, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getBaseline, getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusListeners, getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputMethodListeners, getInputMethodRequests,

getKeyListeners, getLocation, getLocation, getLocationOnScreen, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPropertyChangeListener, getPropertyChangeListener, getSize, getSize, getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, imageUpdate, inside, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled, isFocusable, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isPreferredSizeSet, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, prepareImage, prepareImage, printAll, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processKeyEvent, processMouseEvent, processMouseMotionEvent, processMouseWheelEvent, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, requestFocus, requestFocus, requestFocus, requestFocus, requestFocusInWindow, requestFocusInWindow, requestFocusInWindow, resize, resize, revalidate, setComponentOrientation, setDropTarget, setEnabled, setFocusable, setFocusTraversalKeysEnabled, setForeground, setIgnoreRepaint, setLocale, setMaximumSize, setMixingCutoutShape, setName, setPreferredSize, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle

■ Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

■ Methods inherited from interface java.awt.MenuContainer

getFont, postEvent

• ○ Constructor Detail

■ FindUsPage

```
public FindUsPage(BankAutomated BA,  
                 HomePage previous)
```

FindUsPage Constructor, this constructor creates all the frame specifications for when the customer selects the "Find Us" option from their homepage (e.g, draws the location pins and adds button click listeners to them)

Parameters:

BA - BankAutomated object
previous - HomePage object

○ Method Detail

■ paint

```
public void paint(java.awt.Graphics g)
```

paint method, overrides the JFrame paint method in order to allow for custom graphical design

Overrides:

paint in class java.awt.Window

Parameters:

g - Graphics object

■ **actionPerformed**

```
public void actionPerformed(java.awt.event.ActionEvent e)
```

actionPerformed method (implements ActionListener). If the "Back To Home" button is pressed, the user is sent back to their homepage.

Specified by:

actionPerformed in interface java.awt.event.ActionListener

Parameters:

e - ActionEvent object that keeps track of button clicks

■ **mouseClicked**

```
public void mouseClicked(java.awt.event.MouseEvent e)
```

mouseClicked method (implements MouseListener). This method keeps track of the button clicks of the pins (as those pins are implemented as JLabels, they need this method). When a pin is clicked, a specific prompt is shown describing the location of the pin selected.

Specified by:

mouseClicked in interface java.awt.event.MouseListener

Parameters:

e - the event to be processed

■ **mousePressed**

```
public void mousePressed(java.awt.event.MouseEvent e)
```

Left empty, part of implementing the MouseListener interface

Specified by:

mousePressed in interface java.awt.event.MouseListener

Parameters:

e - the event to be processed

■ **mouseReleased**

```
public void mouseReleased(java.awt.event.MouseEvent e)
```

Left empty, part of implementing the MouseListener interface

Specified by:

mouseReleased in interface java.awt.event.MouseListener

Parameters:

e - the event to be processed

■ **mouseEntered**

```
public void mouseEntered(java.awt.event.MouseEvent e)
```

Left empty, part of implementing the MouseListener interface

Specified by:

mouseEntered in interface java.awt.event.MouseListener

Parameters:

e - the event to be processed

■ **mouseExited**

```
public void mouseExited(java.awt.event.MouseEvent e)
```

Left empty, part of implementing the `MouseListener` interface

Specified by:

`mouseExited` in interface `java.awt.event.MouseListener`

Parameters:

`e` - the event to be processed