Basics of Programming III

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Wallet Developer Manual

General Informations

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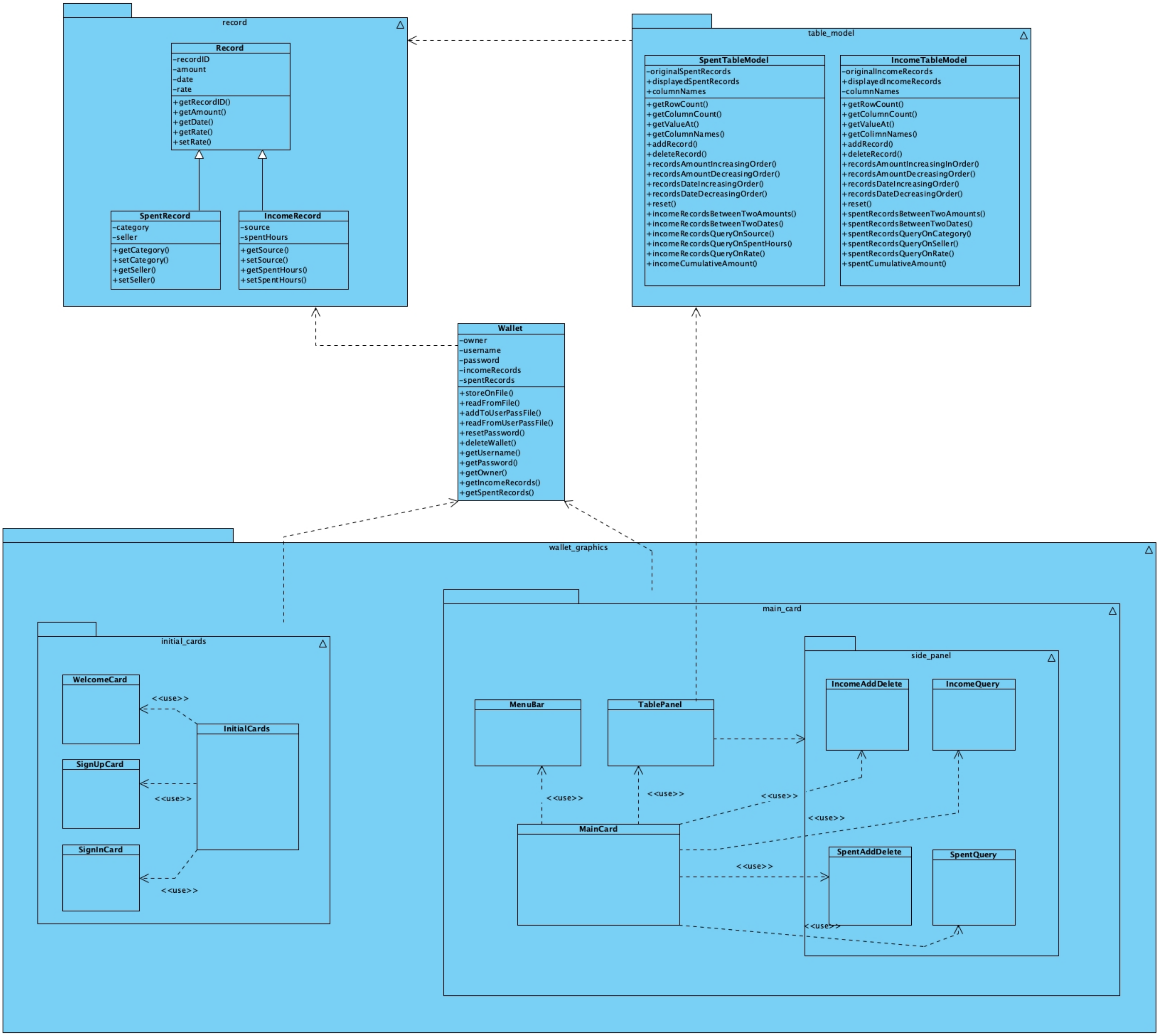
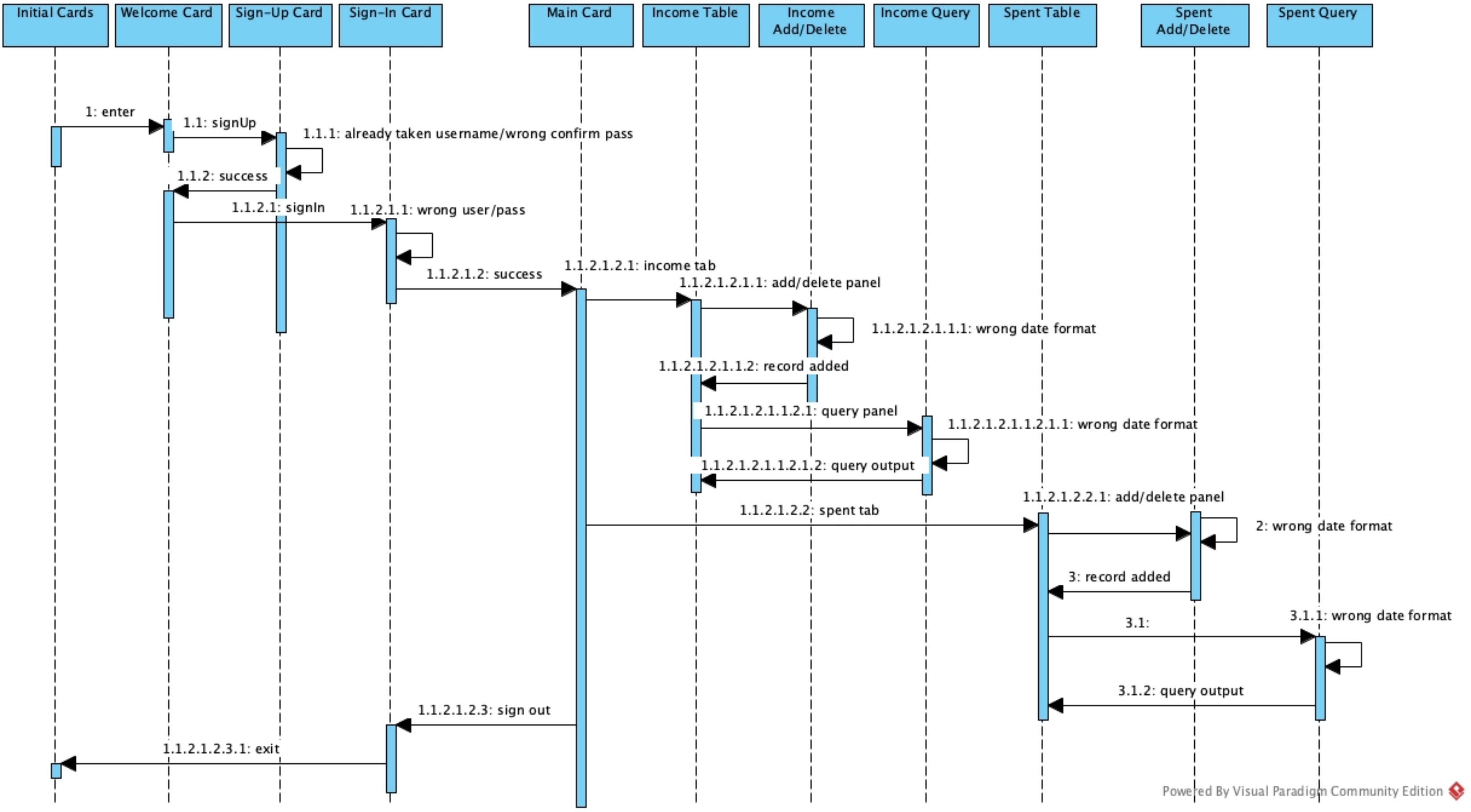
Class Diagram



Sequence Diagram



Specification Details

Logically the project can be divided into two sections:

First section : data related, for example working with tables to add/delete record or have a query on them

Second section : graphics, for example panels designed for different purposes

I start with the 'First section', how I defined data in the project and how I used it:

Related classes:

Package main.record

Class Record

java.lang.Object

main.record.Record

All Implemented Interfaces:

Serializable

Direct Known Subclasses:

IncomeRecord, SpentRecord

public abstract class Record extends Object

Nested Class Summary

Nested Classes

Modifier and Type Class
Description static enum Record.Rate

Constructor Summary

Constructors

Constructor	Description
Record(double amount, LocalDate date)	

Method Summary

All Methods

Instance Methods Concrete Methods

Modifier and Type	Method	Description
double	getAmount()	
LocalDate	getDate()	
Record.Rate	getRate()	
String	getRecordID()	
void	setRate(Record.Rate rate)	

Package main.record

Class IncomeRecord

java.lang.Object main.record.Record

main.record.IncomeRecord

All Implemented Interfaces:

Serializable

public class IncomeRecord extends Record
implements Serializable

Nested Class Summary

Record.Rate

Nested classes/interfaces inherited from class main.record.Record

Constructor Summary

Constructors

Constructor Description

IncomeRecord(double amount, LocalDate date)

Method Summary

All Methods

Instance Methods Concrete Methods

Modifier and Type Method

Constructor Details

IncomeRecord

public IncomeRecord(double amount, LocalDate date)

Description

String getSource()

Double getSpentHours()

void setSource(String source)

void setSpentHours(Double spentHours)

Methods inherited from class main.record.Record getAmount, getDate, getRate, getRecordID, setRate

Package main.record

Class SpentRecord

java.lang.Object main.record.Record

main.record.SpentRecord

All Implemented Interfaces:

Serializable
public class SpentRecord extends Record implements Serializable

See Also:

Serialized Form

Nested Class Summary

Record.Rate

Nested classes/interfaces inherited from class main.record.Record

Constructor Summary

Constructors

Constructor	Description
SpentRecord(double amount, LocalDate date)	

Method Summary

All Methods

Instance Methods Concrete Methods

Modifier and Type	Method

Constructor Details

SpentRecord

public SpentRecord(double amount, LocalDate date)

Description

String getCategory()

String getSeller()

void setCategory(String category)

void setSeller(String seller)

Methods inherited from class main.record.Record

getAmount, getDate, getRate, getRecordID, setRate

These were the basic units of data in the project, later on they are represented in tables and are stored in text file which can be accessed through a wallet. Each username represents a wallet and of course each wallet has a password and owner name also. Users can have as many wallets as they want. More details:

Package main.wallet.table_model

Class IncomeTableModel

java.lang.Object javax.swing.table.AbstractTableModel

main.wallet.table_model.IncomeTableModel

All Implemented Interfaces:

Serializable ,TableModel public class IncomeTableModel

extends AbstractTableModel

Field Summary

Fields

Modifier and Type	Field	Description
List <IncomeRecord>	displayedIncomeRecords	

Fields inherited from class javax.swing.table.AbstractTableModel

listenerList

Constructor Summary

Constructors

Constructor	Description
IncomeTableModel(List <IncomeRecord> incomeRecords)	

Method Summary

All Methods

Modifier and Type	Method	Description
void	addRecord(IncomeRecord incomeRecord)	
void	deleteRecord(int rowIndex, String recordID)	
int	getColumnCount()	
String	getColumnName(int column)	
int	getRowCount()	
Object	getValueAt(int rowIndex, int columnIndex)	
double	incomeCumulativeAmount()	
void	incomeRecordsBetweenTwoAmounts(double firstAmount, double secondAmount)	
void	incomeRecordsBetweenTwoDates(LocalDate init, LocalDate end)	

void	incomeRecordsQueryOnRate(Record.Rate rate)
void	incomeRecordsQueryOnSource(String source)
void	incomeRecordsQueryOnSpentHours(double spentHours)
void	recordsAmountDecreasingOrder()
void	recordsAmountIncreasingOrder()
void	recordsDateDecreasingOrder()
void	recordsDateIncreasingOrder()
void	reset()

Package main.wallet.table_model

Class SpentTableModel

java.lang.Object javax.swing.table.AbstractTableModel

main.wallet.table_model.SpentTableModel

All Implemented Interfaces:

Serializable ,TableModel public class SpentTableModel

extends AbstractTableModel

Field Summary

Fields

Modifier and Type	Field	Description
List <SpentRecord>	displayedSpentRecords	

Fields inherited from class javax.swing.table.AbstractTableModel

listenerList

Constructor Summary

Constructors

Constructor	Description
SpentTableModel(List <SpentRecord> spentRecords)	

Method Summary

All Methods

Modifier and Type	Method	Description
void	addRecord(SpentRecord spentRecord)	
void	deleteRecord(int rowIndex, String recordID)	
int	getColumnCount()	
String	getColumnName(int column)	
int	getRowCount()	
Object	getValueAt(int rowIndex, int columnIndex)	
void	recordsAmountDecreasingOrder()	
void	recordsAmountIncreasingOrder()	
void	recordsDateDecreasingOrder()	
void	recordsDateIncreasingOrder()	
void	reset()	
double	spentCumulativeAmount()	
void	spentRecordsBetweenTwoAmounts(double firstAmount, double secondAmount)	
void	spentRecordsBetweenTwoDates(LocalDate init, LocalDate end)	
void	spentRecordsQueryOnCategory(String category)	

void	spentRecordsQueryOnRate(Record.Rate rate)
void	spentRecordsQueryOnSeller(String seller)

Package main.wallet

Class Wallet

java.lang.Object

main.wallet.Wallet

All Implemented Interfaces:

Serializable

public class Wallet extends Object implements Serializable

each user has a main.wallet in which all the records are stored beside credentials like username and password, it provides methods to store data on file or retrieve from it also accessing the users file in which all the users are listed and modifying it like deleting a user or changing password are possible here

Constructor Summary

Constructors

Constructor	Description
Wallet(String owner, String username, String password)	

Method Summary

All Methods

Modifier and Type	Method	Description
static void	addToUserPassFile(String username, String password, Logger logger)	
void	deleteWallet(Logger logger)	
List <IncomeRecord>	getIncomeRecords()	
String	getOwner()	

String getPassword()

List <SpentRecord> getSpentRecords()

String getUsername()

static Wallet readFromFile(String username, Logger logger)

static Map <String ,String > readFromUserPassFile(Logger logger)

boolean resetPassword(String previousPass, String newPass, Logger logger)

void storeOnFile(Logger logger)

Second section : graphics, as it was shown on the class diagram there are two general parts in this project graphics design, Initial cards, which are basically dealing with creating a new user or logging in to an existent account, and Main card, which has the record tables with an operating panel beside it to add/delete record or perform query on the records. More details:

Package main.wallet.wallet_graphics.initial_cards

Class main.wallet.wallet_graphics.initial_cards.InitialCards

class InitialCards extends JFrame implements Serializable

Class main.wallet.wallet_graphics.initial_cards.SignInCard

class SignInCard extends JPanel implements Serializable

Class main.wallet.wallet_graphics.initial_cards.SignUpCard

class SignUpCard extends JPanel implements Serializable

Class main.wallet.wallet_graphics.initial_cards.WelcomeCard

class WelcomeCard extends JPanel implements Serializable

Package main.wallet.wallet_graphics.main_card

Class main.wallet.wallet_graphics.main_card.HintTextField

It is a JTextField with a hint text by default shown, I used it to inform the correct date format of an input from user : "YYYY-MM-DD"

class HintTextField extends JTextField implements Serializable

Serialized Fields hintText

String hintText

Class main.wallet.wallet_graphics.main_card.MainCard

class MainCard extends JFrame implements Serializable

Class main.wallet.wallet_graphics.main_card.MenuBar

class MenuBar extends JMenuBar implements Serializable

Class main.wallet.wallet_graphics.main_card.TablePanel

class TablePanel extends JTabbedPane implements Serializable

Package main.wallet.wallet_graphics.main_card.side_panel

Class main.wallet.wallet_graphics.main_card.side_panel.IncomeAddDelete

class IncomeAddDelete extends JPanel implements Serializable

Class main.wallet.wallet_graphics.main_card.side_panel.IncomeQuery

class IncomeQuery extends JPanel implements Serializable

Class main.wallet.wallet_graphics.main_card.side_panel.SpentAddDelete

class SpentAddDelete extends JPanel implements Serializable

Class main.wallet.wallet_graphics.main_card.side_panel.SpentQuery

class SpentQuery extends JPanel implements Serializable

Unit Tests

UI is not checked during the tests, just classes working with data. More details:

Package tests

Class IncomeRecordTest

Method Details

testIncomeRecordInitialization

```
public void testIncomeRecordInitialization()
```

testSetAndGetSource

```
public void testSetAndGetSource()
```

testSetAndGetSpentHours

```
public void testSetAndGetSpentHours()
```

Package tests

Class IncomeTableModelTest

Method Details

testInitialization

```
public void testInitialization()
```

testAddRecord

```
public void testAddRecord()
```

testDeleteRecord

```
public void testDeleteRecord()
```

testRecordsAmountIncreasingOrder

```
public void testRecordsAmountIncreasingOrder()
```

testRecordsAmountDecreasingOrder

```
public void testRecordsAmountDecreasingOrder()
```

Package tests

Class RecordTest

Method Details

testRecordInitialization

public void testRecordInitialization()

testSetAndGetRate

public void testSetAndGetRate()

Package tests

Class SpentRecordTest

Method Details

testSpentRecordInitialization

public void testSpentRecordInitialization()

testSetAndGetCategory

public void testSetAndGetCategory()

testSetAndGetSeller

public void testSetAndGetSeller()

Package tests

Class SpentTableModelTest

Method Details

testInitialization

public void testInitialization()

testAddRecord

public void testAddRecord()

testDeleteRecord

public void testDeleteRecord()

testRecordsAmountIncreasingOrder

public void testRecordsAmountIncreasingOrder()

public void testRecordsAmountDecreasingOrder()

Package tests

Class WalletTest

Method Details

setUp

public void setUp()

testStoreOnFile

public void testStoreOnFile()

testReadFromFile

public void testReadFromFile()

testAddToUserPassFile

public void testAddToUserPassFile()

testResetPassword

public void testResetPassword()