



# Lesson: Advanced Topics in Software Engineering

**Project name: jGnash**

**Part III: Implementation**

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**We know from the part II Design of  
Modification that we have to make changes to  
the script IncomeExpensePieChart.bsh and  
add extra .property files in order to implement  
these changes.**

# Pie Chart Modification

jGnash - 1.10.3 [/disk2/shome/Students2003/gparas/jgnash/Dokimi.jgnash.xml]

File Reports Edit View Tools Help

Open Save Cut Copy Paste

Accounts Register Remind...

**Account list**

**X Account Balance**

Expense Accounts

**Percent Expense - Expense Accounts**

**Before the modification**

Category	Value
Καταβολή ενοικίων	89,888
Shopping	33,708
DVD's	20,225

DVD's = 20,225

Shopping = 33,708

Καταβολή ενοικίων = 89,888

Close

AutoSave has been turned off

5644 Kb / 64640 Kb

Start gpa... Micr... Tμή... EDU... Exc... gpa... Java Yah... Tμή... gpa... jGnash EN 5:07 μμ

# Pie Chart Modification

Microsoft PowerPoint - [Implementation.ppt]

jGnash - 1.10.3 [/disk2/shome/Students2003/gparas/jgnash/Dokimi.jgnash.xml]

File Reports Edit View Tools Help

Open Save Cut Copy Paste

**Account register**

Reconcile Filter Columns Resize Zoom Print

Bank Accounts

- Alpha Bank
- Eurobank
- Omega Bank
- Αγροτική Τράπεζα
- Εθνική Τράπεζα
- Ταχυδρομικό Ταμευτής

Expense Accounts

- DVD's
  - AlexanderTheGreat
  - BeCool
  - Shopping

Καταβολή ενοικίων

Income Accounts

Καταβολή ενοικίων

Balance: 400,00 € Reconciled Balance: 0,00 €

Date	Num	Payee	Memo	Account	Clr	Expense	Rebate	Balance
01/04/2006		Papado...		Bank A...		400,00		400,00 €

New Duplicate Jump Delete

Expense Rebate Transfer Adjust

Payee:

Number:  ▾

Account: Bank Accounts

Date: 29/5/2006

Memo:

Amount:

Reconciled  Exchange Rate:

Enter Cancel

Transaction added 10305 Kb / 65856 Kb

Start 60 Mic... Tmu... ED... Ex... gp... Ne... Ya... Tmu... gp... jGn... EN 5:31 μμ

# Pie Chart Modification

NetBeans IDE 4.1  
jGnash - 1.10.3 [/disk2/shome/Students2003/gparas/jgnash/Dokimi.jgnash.xml]

File Reports Edit View Tools Help

Open Save Cut Copy Paste

Account register

Accounts Register Remind...

Bank Accounts  
Alpha Bank  
Eurobank  
Omega Bank  
Αγροτική Τράπεζα  
Εθνική Τράπεζα  
Ταχυδρομικό Ταμιευτής

Expense Accounts  
Balance: -195,00 € Reconciled Balance: 0,00 €

Date	Payee	Account	Expense	Rebate	Balance
07/05/2006	Metropolis	DVD's		45,00	-45,00 €
11/05/2006	Glou	Shopping		150,00	-195,00 €

The expense account that are registered in May '06

New Duplicate Jump Delete

Expense Rebate Transfer Adjust

Payee: Number:

Account: Bank Accounts Splits Date: 29/5/2006

Memo: Amount:

Reconciled Exchange Rate: Enter Cancel

Transaction added 9309 Kb / 65856 Kb

Start 60 Mic... ED... Ex... gp... Ne... Ya... Tmu... gp... jGn... EN 5:30 μμ

# Pie Chart Modification

NetBeans IDE 4.1  
jGnash - 1.10.3 [/disk2/shome/Students2003/gparas/jgnash/Dokimi.jgnash.xml]

File Reports Edit View Tools Help

Open Save Cut Copy Paste

Accounts Register Remind...

Account Balance

Expense Accounts

Start Date: 31/5/2005 ... End Date: 29/5/2006 ... Refresh

Percent Expense – Expense Accounts

DVD's = 20,225

Shopping = 33,708

Καταβολή ενοικιών = 89,888

Reconciled Balance: 0,00 €

Balance 1.200,00 €

20/5/2006 ...

Close Cancel

Transaction added 9053 Kb / 65344 Kb

Start gpa... Micr... Tm... EDU... Exc... gpa... Net... Yah... Tm... gpa... jGn... EN

5:14 μμ

## Start and End Date Insertion

Category	Value
Καταβολή ενοικιών	89,888
DVD's	20,225
Shopping	33,708

# Pie Chart Modification

Microsoft PowerPoint - [Implementation.ppt]

jGnash - 1.10.3 [/disk2/shome/Students2003/gparas/jgnash/Dokimi.jgnash.xml]

File Reports Edit View Tools Help

Open Save Cut Copy Paste

Accounts Records

Bank Accounts: Alpha Bank, Eurobank, Omega Bank, Αύροτικη, Εθνική Τράπεζα, Ταχυδρόμιος

Expense Accounts: DVD's, Alexa, BeCoc, Shopping, Καταβολή ενοικίων, Income Accounts

Start Date: 1/4/2006 End Date: 30/4/2006 Refresh

Percent Expense - Expense Accounts

Reconciled Balance: 0,00 € Balance: 1.200,00 €

20/5/2006 Close Cancel

## Change of Start and End Date

Category	Value
Καταβολή ενοικίων	89,888
Shopping	33,708
DVD's	20,225

Transaction added 8080 Kb / 65600 Kb

Start gparas Micr... EDU... Exc... gparas Net... Yah... Tm... gparas jGnash EN 5:15 μμ

# Pie Chart Modification

Microsoft PowerPoint - [Implementation.ppt]

jGnash - 1.10.3 [/disk2/shome/Students2003/gparas/jgnash/Dokimi.jgnash.xml]

File Reports Edit View Tools Help

Open Save Cut Copy Paste

Accounts Register Remind...

Account Balance

Expense Accounts

Start Date: 1/4/2006 End Date: 30/4/2006 Refresh

Percent Expense - Expense Accounts

After pressing Refresh button

DVD's = 0  
Shopping = 0

Καταθολή ενοικίων = 89,888

Reconciled Balance: 0,00 €

Balance 1.200,00 €

Close Cancel

Transaction added 8937 Kb / 65600 Kb

Start Micr... EDU... Exc... gpa... Net... Yah... Tm... gpa... jGnash EN 519 µp

# Pie Chart Modification

Microsoft PowerPoint - [Implementation.ppt]

jGnash - 1.10.3 [/disk2/shome/Students2003/gparas/jgnash/Dokimi.jgnash.xml]

File Reports Edit View Tools Help

Open Save Cut Copy Paste

Accounts

Register

Remind...

Account Balance

Expense Accounts

Start Date: 1/5/2006 End Date: 29/5/2006 Refresh

Percent Expense – Expense Accounts

DVD's = 0  
Shopping = 0

Καταβολή ενοικίων = 89,888

Reconciled Balance: 0,00 €

Balance 1.200,00 €

20/5/2006

Close Cancel

We change again the Start and End Date

Transaction added 7129 Kb / 65728 Kb

Start 60 Micr... Tm... EDU... Exc... gpa... Net... Yah... Tm... gpa... jGn... EN 5:22 μμ

# Pie Chart Modification

Microsoft PowerPoint - [Implementation.ppt]

jGnash - 1.10.3 [/disk2/shome/Students2003/gparas/jgnash/Dokimi.jgnash.xml]

File Reports Edit View Tools Help

Open Save Cut Copy Paste

Accounts Register Remind...

**Account Balance**

Expense Accounts

Start Date: 1/5/2006 ... End Date: 29/5/2006 ... Refresh

**Percent Expense – Expense Accounts**

Καταβολή ενοικίων = 0

DVD's = 20,225

Shopping = 33,708

Reconciled Balance: 0,00 €

Balance 1.200,00 €

20/5/2006

**After pressing Refresh button**

Close Cancel

Transaction added 8545 Kb / 65728 Kb

Start Micr... EDU... Exc... gpa... Net... Yah... Tm... gpa... jGn... EN 5:24 μμ

60

# Pie Chart Modification – The *diff* file

```
42c42
< import jgnash.ui.components.AccountListComboBox;
---
>
44c44,51
< import jgnash.ui.util.UIResource;
---
>
>
> /**packages necessary for the modification*/
> import java.util.Date;
> import jgnash.util.DateUtils;
> import org.jfree.data.time.*;
> import jgnash.ui.components.*;
> import jgnash.ui.util.*;
48c55,60
< rb = UIResource.get();
---
> UIResource rb = (UIResource) UIResource.get();
> DatePanel startField = new DatePanel();
> DatePanel endField = new DatePanel();
>
> static Date end = DateUtils.lastDayOfMonth(endField.getDate());
> static Date start = DateUtils.previousYear(end);
53a66,72
>
>     startField.setDate(start);
>     JButton refreshButton = new JButton(rb.getString("Button.Refresh"));
>
```

# Pie Chart Modification -- The *diff* file

```
60a80,84
>      FormLayout dLayout = new FormLayout("p, 4dlu, p, 8dlu, p, 4dlu, p, 8dlu, p",
"");
>      DefaultFormBuilder dBuilder = new DefaultFormBuilder(dLayout);
>      dBuilder.append(rb.getString("Label.StartDate"), startField);
>      dBuilder.append(rb.getString("Label.EndDate"), endField);
>      dBuilder.append(refreshButton);
64a89,90
>      builder.append(dBuilder.getPanel(), 2);
>      builder.nextLine();
82,83c108,110
<
<      combo.addActionListener(listener);
---
>
>      combo.addActionListener(listener);
>      refreshButton.addActionListener(listener);
90,91d116
<      PieDataset data = createPieDataset(a);
<      PiePlot plot = new PiePlot(data);
104a130,135
>      start = startField.getDate();
>      end = endField.getDate();
>
>      PieDataset data = createPieDataset(a);
>      PiePlot plot = new PiePlot(data);
>
```

# Pie Chart Modification -- The *diff* file

```
114a147,149
>         Date [] list = new Date [0];
>
>
116a152,153
>
>             Date dateTrans = a.getTransactionAt(0).getDate();
119a157
>
121a160,169
> System.out.println(a.toString());
> System.out.println(a.getChildCount().toString());
> Account child = a.getChildAt(i);
> System.out.println(child.toString() + i);
>
> System.out.println(start.toString());
> System.out.println(end.toString());
>
>             System.out.println(dateTrans.toString());
>
124a173,175
>
>
>
126c177,179
<                 BigDecimal value =
child.getTreeBalance(a.getCommodityNode());
---
> System.out.println(a.getCommodityNode().toString());
>
>             BigDecimal value = child.getTreeBalance(start, end);
```

# Localization

Java - engine\_en.properties - Eclipse SDK

File Edit Source Refactor Navigate Search Project Run LightUML Window Help

Package Explorer    Main.java    engine\_en.properties    resource\_en.properties

#Generated by ResourceBundle Editor (<http://eclipse-rbe.sourceforge.net>)

```
Message.AccountAdd = Account added
Message.AccountCode = Account code was not unique: The code was not changed
Message.AccountModify = Account modified
Message.AccountRemove = Account removed
Message.AutoScaleOff = AutoSave has been turned off
Message.AutoScaleOn = AutoSave has been turned on
Message.BadPassword = The file may be encrypted or the wrong password was supplied
Message.CheckRecurring = Checking for new recurring events
Message.EngineStart = Engine started
Message.ErrorLoad = Error when trying to load
Message.FileNotFound = File was not found
Message.StoreBackup = Saving backup to:
Message.StoreComplete = File store is complete
Message.StoreWait = Waiting for file store to complete
Message.TransactionAccountLocked = Transaction add failed, Destination account(s) are locked
Message.TransactionAdd = Transaction added
Message.TransactionRemove = Transaction removed
Message.TransactionRemoveLocked = Transaction removal failed, Destination account(s) are locked

Name.BankAccounts = Bank Accounts
Name.ExpenseAccounts = Expense Accounts
Name.IncomeAccounts = Income Accounts
Name.Root = Root

Period.Daily = Daily
Period.Monthly = Monthly
Period.None = None
Period.OnlyOnce = Only once
Period.Weekly = Weekly
Period.Yearly = Yearly

addShare = Add Shares
```

An outline is not available.

Outline

2 items selected

**Two new property files need to be added to the jgnash.resource package, more specifically the *engine\_el\_GR.properties* and the *resource\_el\_GR.properties*.**

**Also a new package needs to be created with the name *jgnash.resource.text.el* which will contain 10 new text files.**

## **Modification Summary:**

**We add/modify the packages which are necessary for the modification.**

**We add the startField and endField DatePanel.**

**We give initial values to the above fields.**

**We add a refresh button which allow the program to read and apply the new dates.**

**We add/modify the layout in order to include the previous components.**

**We add the necessary listener in order for the refresh button to work.**

**We invoke the read of the new dates.**

**We test the functionality by a series of System.out.println commands.**

**We use the method *child.getTreeBalance(start, end);* in order to make the program calculate tha balance of the Expense account bettween a start and and date.**

**We add the necessary property files and property packages so we are able to change to the Greek language.**