

ΠΡΟΧΩΡΗΜΕΝΑ ΘΕΜΑΤΑ ΤΕΧΝΟΛΟΓΙΑΣ ΚΑΙ ΕΦΑΡΜΟΓΩΝ ΒΑΣΕΩΝ  
ΔΕΔΟΜΕΝΩΝ

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ΠΡΟΓΡΑΜΜΑΤΙΣΤΙΚΗ ΕΡΓΑΣΙΑ ΓΙΑ ΤΟ  
ΑΚΑΔΗΜΑΪΚΟ ΕΤΟΣ 2014-2015

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ΟΜΑΔΑ 004

ΓΙΝΑΡΓΥΡΟΣ ΝΙΚΟΣ, 2038

ΜΠΟΥΡΗΣ ΔΗΜΗΤΡΗΣ, 1894

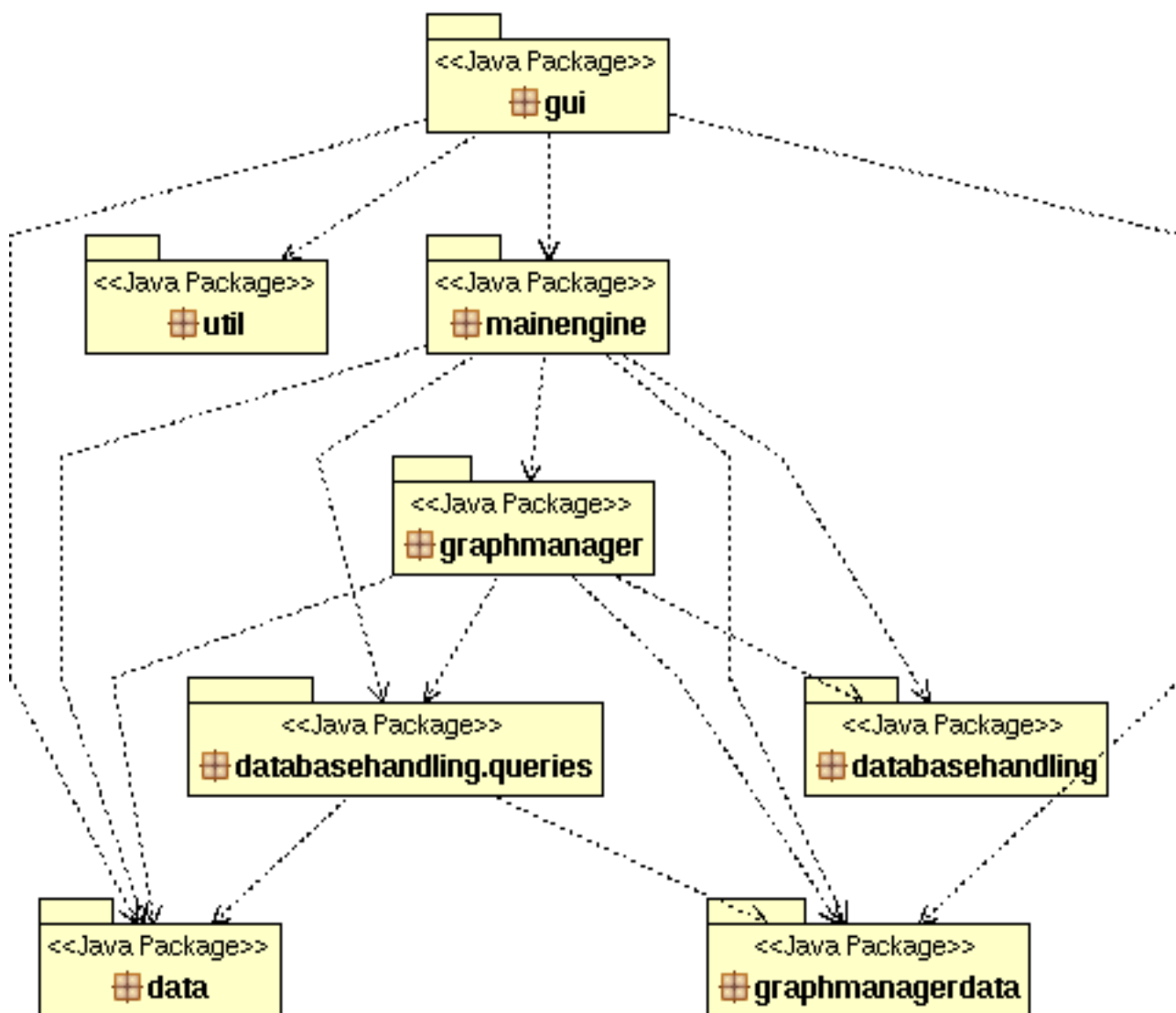
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ΤΕΛΙΚΗ ΑΝΑΦΟΡΑ

ΜΑΙΟΣ 2015

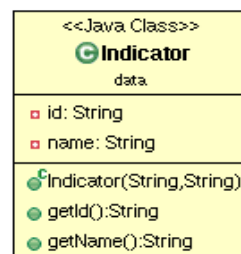
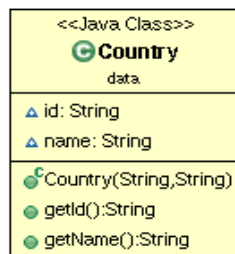
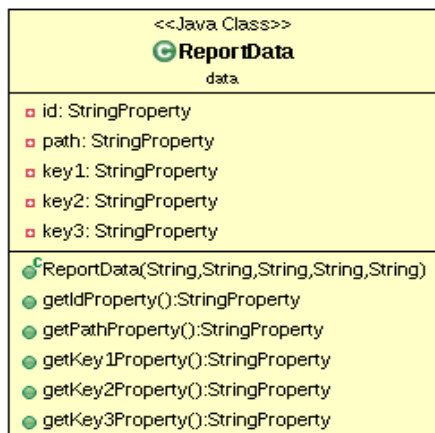
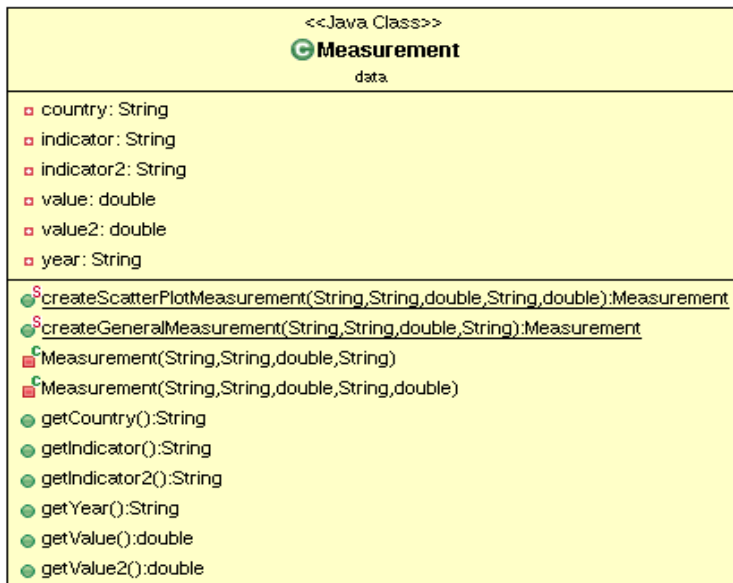
# 1 ΣΧΕΔΙΑΣΗ ΛΟΓΙΣΜΙΚΟΥ

## 1.1 ΔΙΑΓΡΑΜΜΑΤΑ ΠΑΚΕΤΩΝ / ΥΠΟΣΥΣΤΗΜΑΤΩΝ

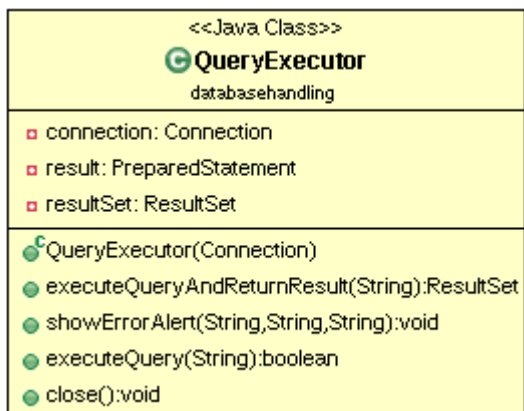
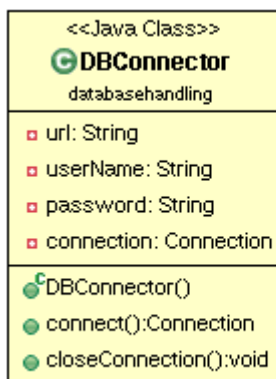


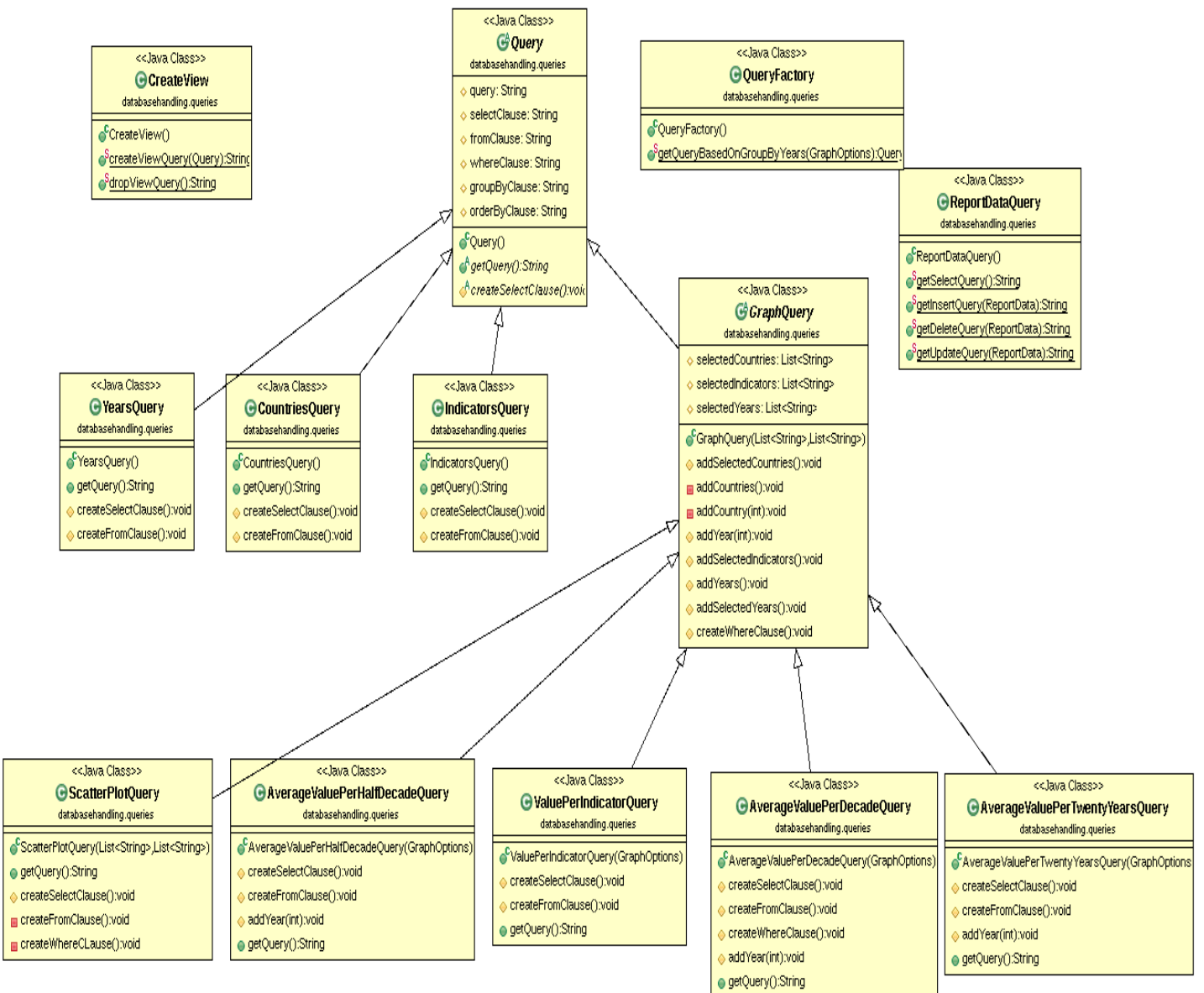
## 1.2 ΔΙΑΓΡΑΜΜΑΤΑ ΚΛΑΣΕΩΝ

**package data;**

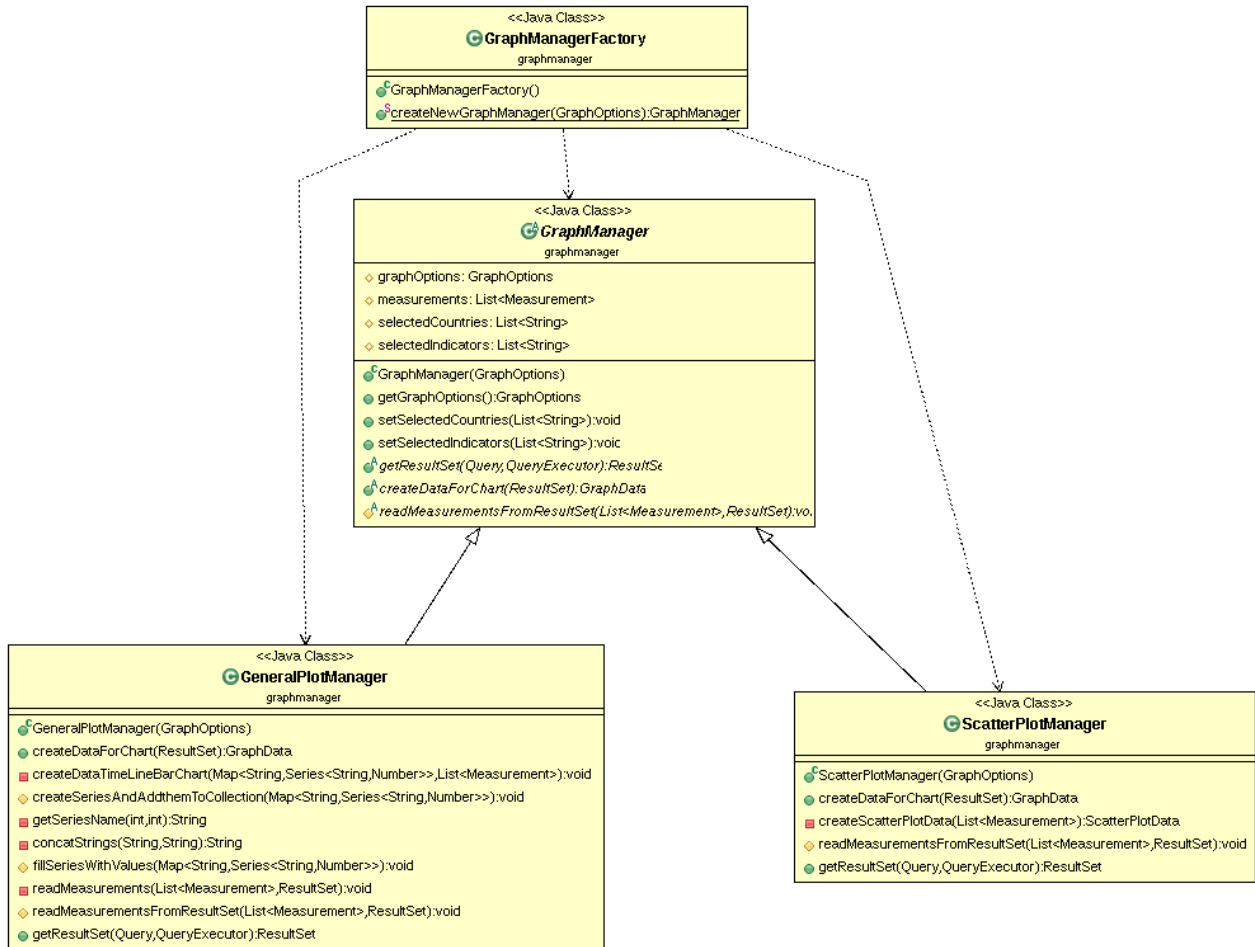


**package** databasehandling;

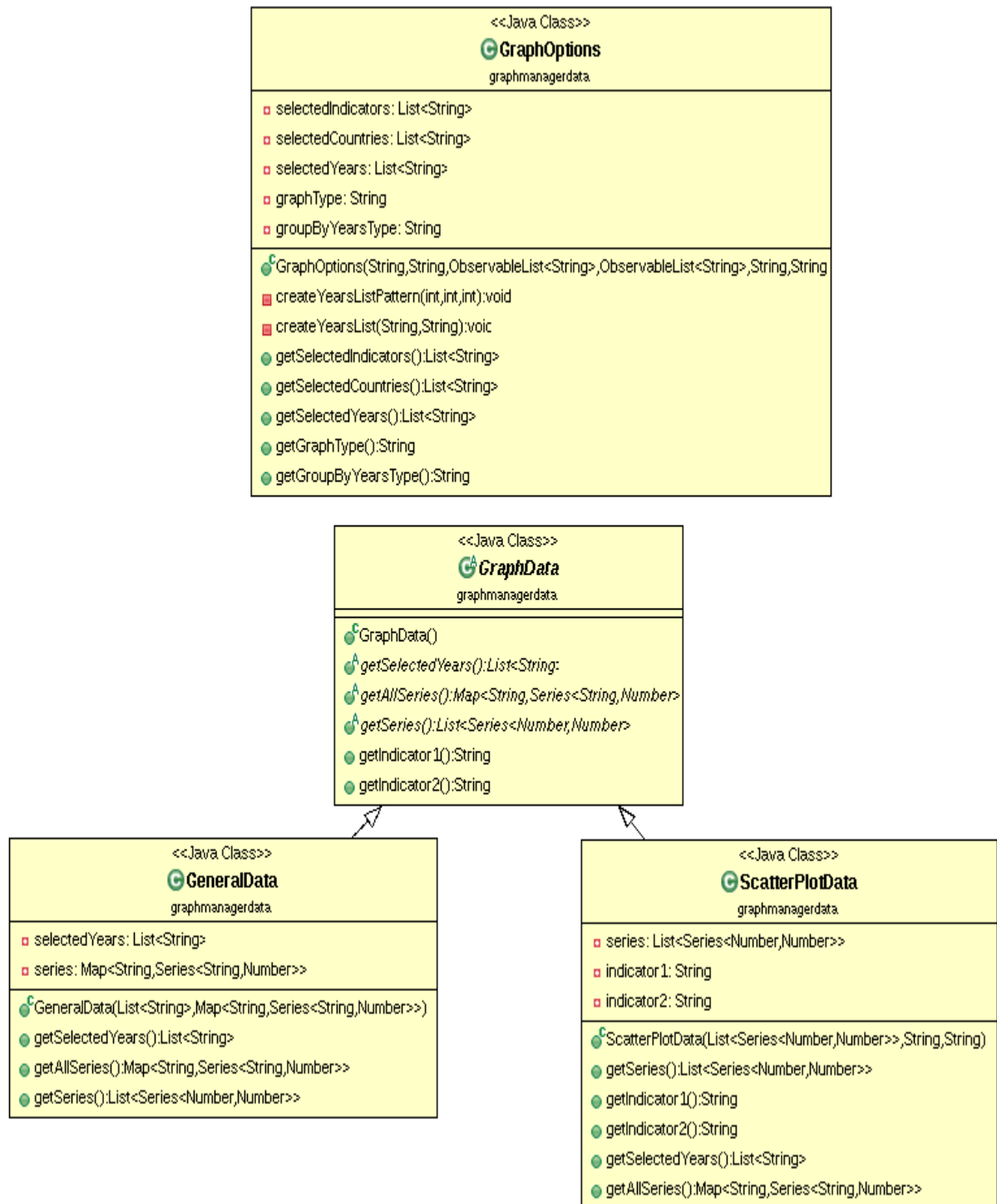


**package** databasehandling.queries;

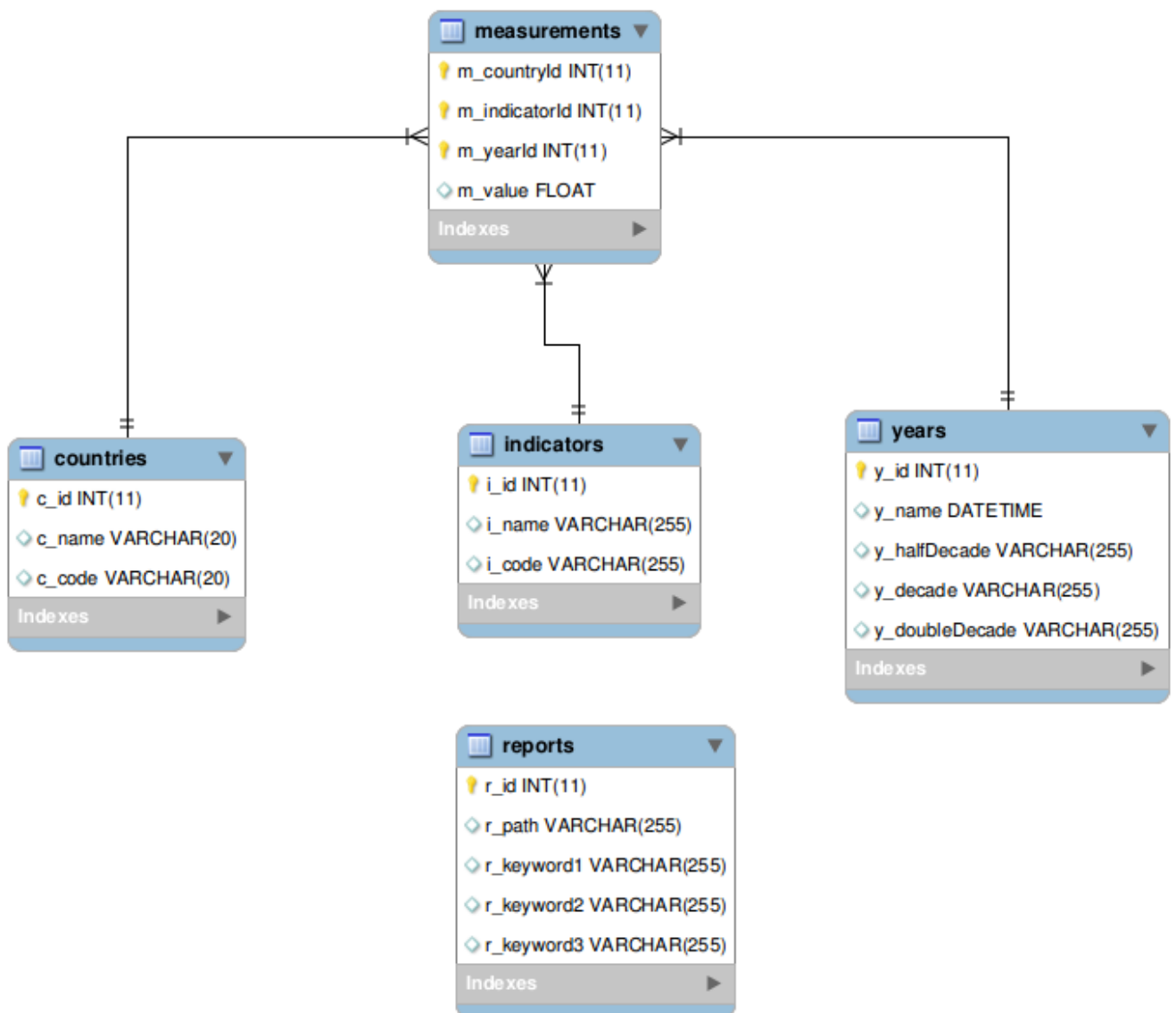
**package graphmanager;**



**package** graphmanagerdata;

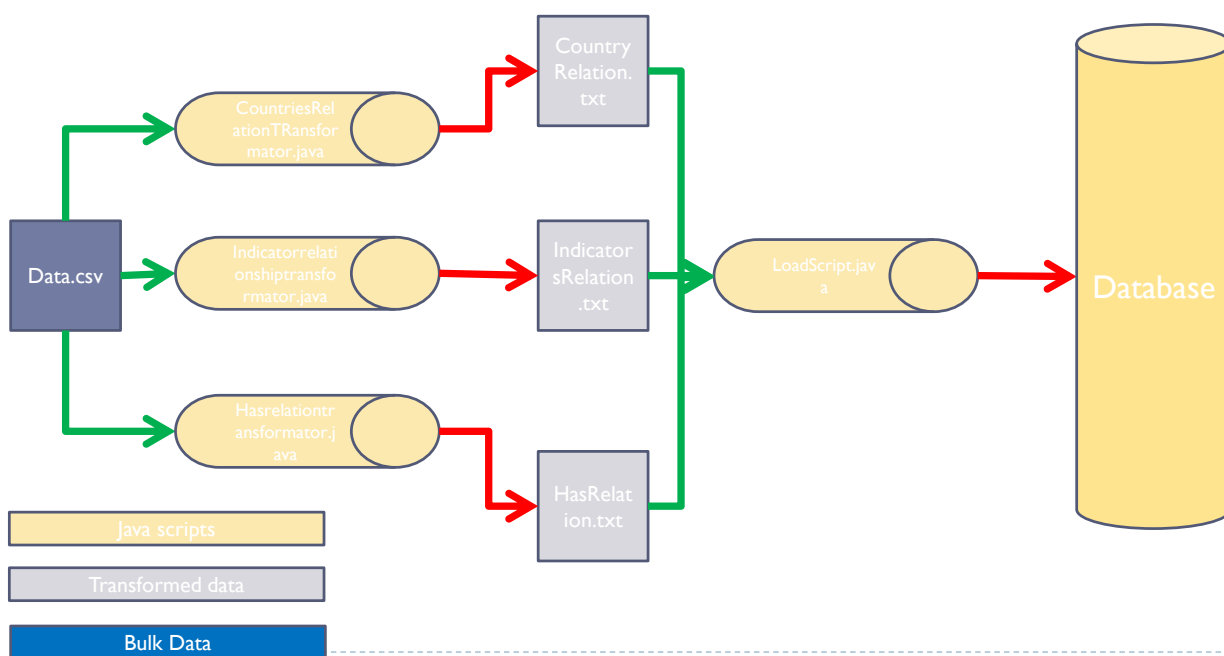


## 1.3 ΣΧΕΣΙΑΚΟ ΣΧΗΜΑ ΒΑΣΗΣ ΔΕΔΟΜΕΝΩΝ





## Data Transformation Diagram



## ΠΕΡΙΓΡΑΦΗ ΕΡΩΤΗΣΕΩΝ ΚΑΙ ΟΠΤΙΚΟΠΟΙΗΣΕΩΝ

## 1.4.1 TIMELINE

## ΕΡΩΤΗΣΗ 1

Δείκτες: Employers,female(% of employment), Employers,male(% of employment)

Χώρες: Greece, Italy

Years : 200- - 2007 (ανά έτος)

**sql query:**

**select** c\_name,y\_id,i\_name,m\_value

**from** measurements,years,countries,indicators

**where** m\_yearId = y\_id

**and** c\_id = m\_countryId **and** m\_indicatorId = i\_id

**and** ( c\_id = "11" **or** c\_id = "14" )

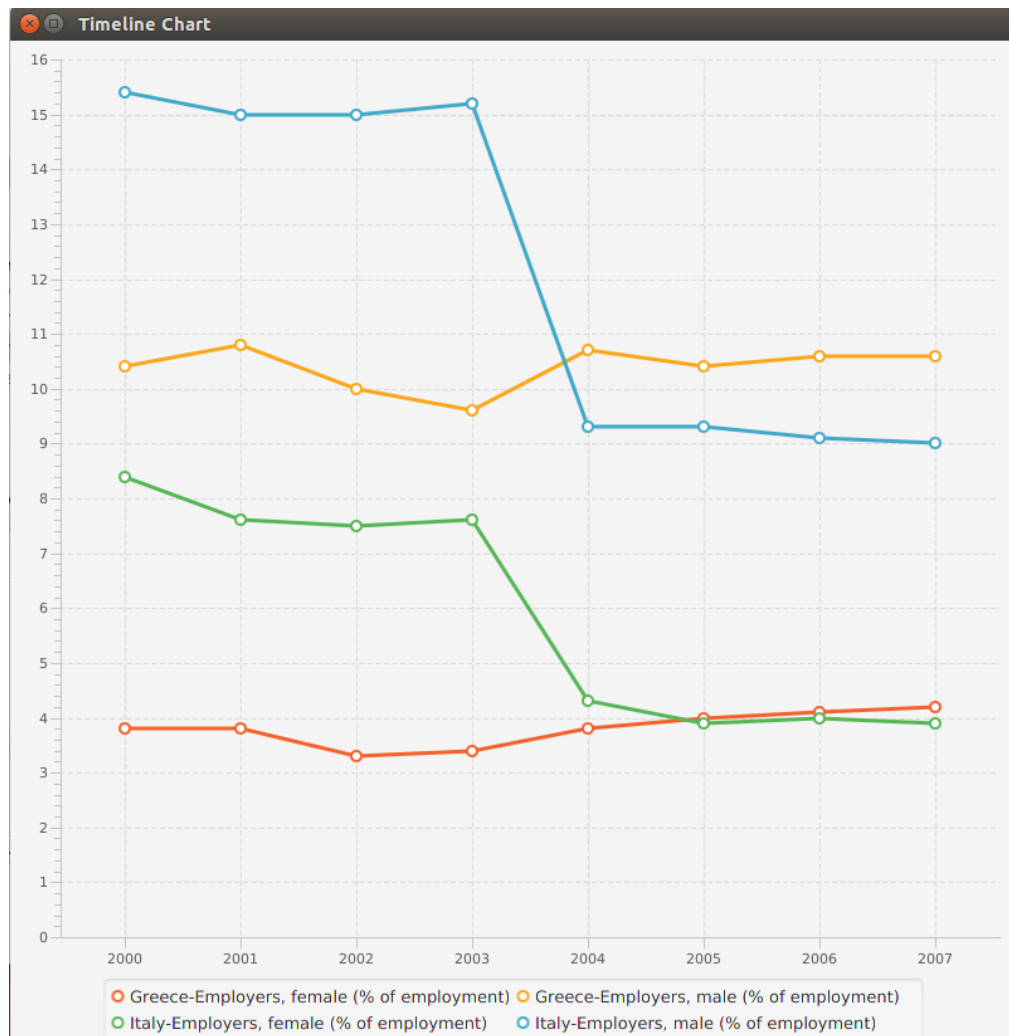
**and** ( i\_id = "24" **or** i\_id = "25" )

**and** ( m\_yearId = "2000" **or** m\_yearId = "2001" **or** m\_yearId = "2002" **or** m\_yearId = "2003" **or** m\_yearId = "2004" **or** m\_yearId = "2005" **or** m\_yearId = "2006" **or** m\_yearId = "2007" )

**group by** c\_name, i\_name , y\_id

**order by** i\_name ;

Οπτικοποίηση:



## 1.5 BAR CHART

Δείκτες: Unemployment with primary education(% of total unemployment)

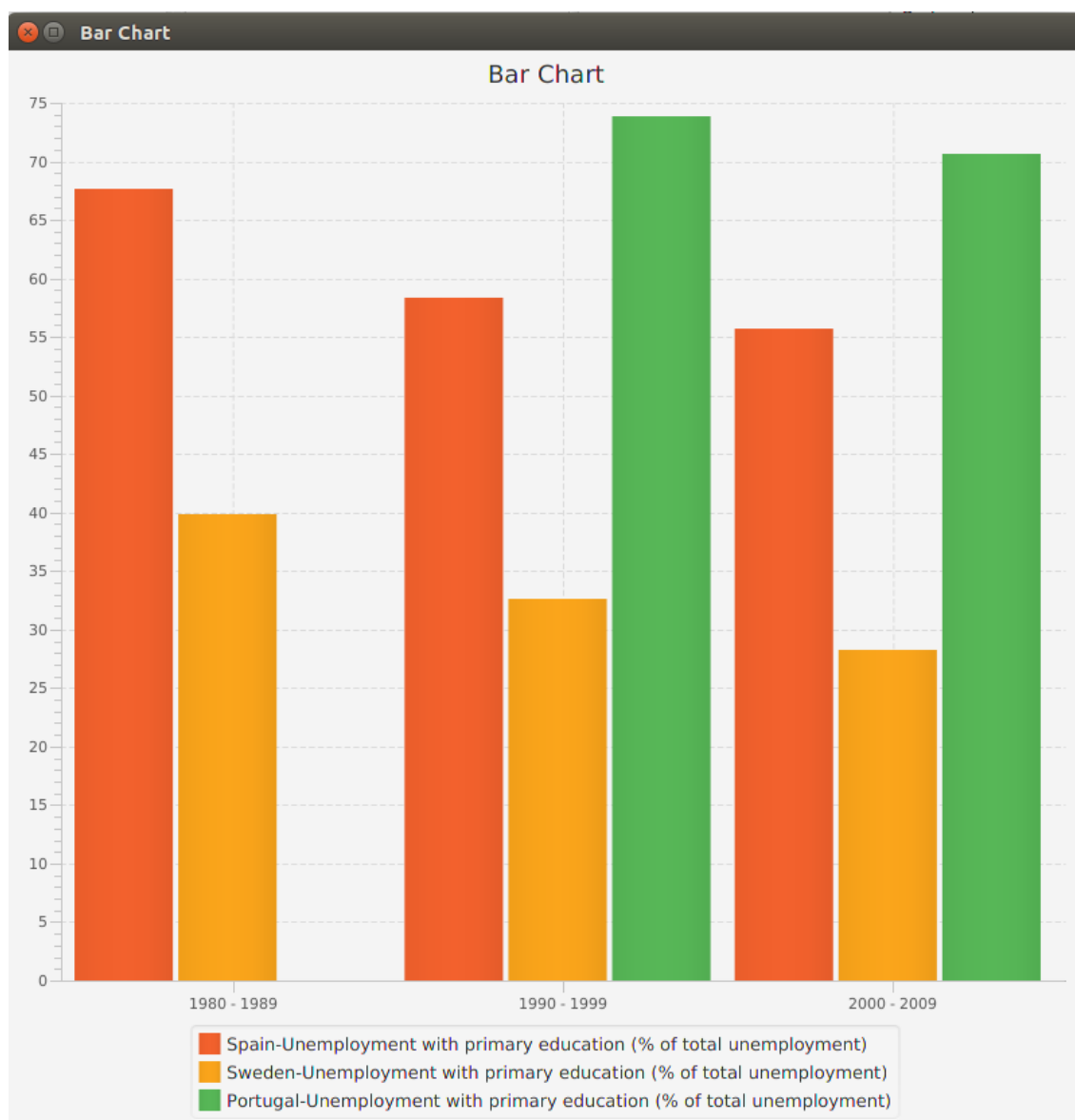
Χώρες: Portugal, Spain, Sweden

Years : 1985- - 2005 (Ανά δεκαετία)

**sql query:**

```
select c_name,y_decade y_id,i_name,avg(m_value) m_value
from measurements,years,countries,indicators
where m_yearId = y_id and c_id = m_countryId and m_indicatorId = i_id
and ( c_id = "21" or c_id = "25" or c_id = "26" )
and ( i_id = "100" )
and ( y_decade = "1980 - 1989" or y_decade = "1990 - 1999" or y_decade = "2000 - 2009" )
group by y_decade,c_name,i_name
order by i_name ;
```

Οπτικοποίηση:



## 1.6 SCATTER PLOT

Δείκτες: Self-employed, female(% of females employed), self-employed,male(%of males employed)

Χώρες: Greece

Years : 1980-2004 (Ανά πενταετία)

sql queries:

Create view v as

```
select c_name,y_halfDecade y_id,i_name,avg(m_value) m_value
```

```
from measurements,years,countries,indicators
```

```
where m_yearId = y_id and c_id = m_countryId and m_indicatorId = i_id
```

```
and ( c_id = "11" )
```

```
and ( i_id = "27" or i_id = "28" )
```

```
and ( y_halfDecade = "1980 - 1984" or y_halfDecade = "1985 - 1989" or y_halfDecade = "1990 - 1994" or y_halfDecade = "1995 - 1999" or y_halfDecade = "2000 - 2004" )group by y_halfDecade,c_name,i_name
```

```
order by i_name ;
```

```
select view1.c_name, view1.i_name ,view2.i_name, view1.m_value, view2.m_value
```

```
from v view1, v view2
```

```
where view1.y_id = view2.y_id
```

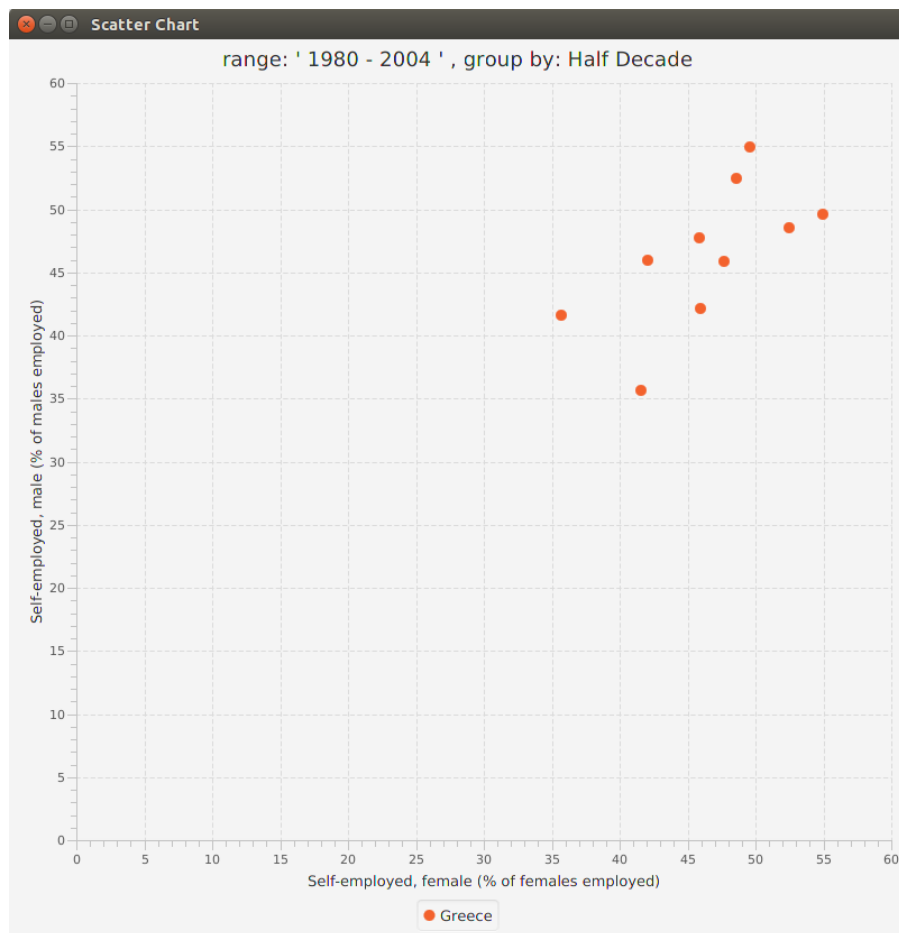
```
and view1.c_name = view2.c_name and view1.i_name <> view2.i_name
```

```
group by view1.m_value,view2.m_value
```

```
order by view1.c_name;
```

drop view v ;

Οπτικοποίηση:



Storage Engine : InnoDB

Memory Allocation

InnoDB Buffer Pool size : 70% της μνήμης (7gb)

Log\_files : 10% της μνήμης.

### ΡΥΘΜΙΣΕΙΣ ΦΥΣΙΚΟΥ ΣΧΗΜΑΤΟΣ ΒΔ

Ευρετήρια σε όλα τα primary keys (numerical) των πινάκων της βάσης.

Στην ερώτηση για την δημιουργία του Scatter Plot χρησιμοποιείται οψη(view) η οποία στο τέλος γίνεται drop.

### ΑΡΧΙΚΗ ΟΘΟΝΗ GUI

The screenshot displays the AddressApp GUI with the following sections:

- Select Countries :** A list box containing Austria, Bulgaria, Croatia (selected), Czech Republic, Denmark, and Estonia. Buttons for "add country" and "delete country" are present.
- Selected Countries :** A list box containing Belgium and Cyprus.
- Select Indicators :** A list box containing various indicators such as "fits incidence in poorest quintile (%) - All", "employment in agriculture (% of economy)", etc. Buttons for "add indicator" and "delete indicator" are present.
- Selected Indicators :** A list box containing "Adequacy of social safety net programs (t", "Adequacy of unemployment benefits and", and "Coverage (%) -All Social Protection and La".
- Graph Options:** Includes "Choose Range :" with dropdowns for 1960 and 1990, "Choose type of graph:" with a dropdown for "Timeline / Tr...", and "Group by :" with a dropdown for "Decade". A "Generate Graph" button is also present.
- Report Options :** A table with columns Id, Path, Key1, Key2, and Key3. The table is currently empty, displaying "No content in table". Below the table are buttons for "Insert", "Update", and "Delete".