IAM PROJECT

(IDENTITY ACCESS AND MANAGEMENT)

SUBMITTED BY

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1.Subject description

[1.1] Introduction:

These project is based on developing IAM (Identity Access and Management) application. In a short note about this application, it helps users to keep their personal identities in a secured manner without there login details they can't access their details which was stored in a database.

But the main goal of these project is to develop an application using java which can connect to any database which was chosen by user (For example: derby, My sql, oracle etc..). The operation we need to perform in that database using java is creating, updating, deleting and listing the identities of the user.

Following operations that needs to be perform in that application

1) Verifying a user login and password
2) Creating an identity
3) Updating an identity
4) Deleting an identity
5) Listing an identity

Note:

Before doing all these actions we need to install derby database latest version, create a new database in derby and stay connected with that new derby database to run this project

2.Subject analysis

[2.1] Major features:

- user friendly
- Easy to use
- Multi task
- change data easily in the table that are created
- Capable of good performance
- Platform independent
- authenticate user to the database

[2.2] Application Feasibility:

- Less cost
- Profitable
- Highly secured environment for users
- Development platform, Servers and database are open source
- Easy to understand

[2.3] Data Description:

The Schema for data is

IDENTITIES_UID	:	INT, Auto generated, Unique
IDENTITIES_DISPLAYNAME	:	STRING
IDENTITIES_EMAIL	:	STRING
IDENTITIES_BIRTHDATE	:	STRING

Authenticate:

These process helps user to access their application by their login and password details. If its correct authentication accepted if its wrong authentication denied.

Create identity:

- These process helps user to create their identities in the database.
- For that you need to give input as uid, display name, Email, birth date.
- It will create an identity successfully.

Update identity:

- These process helps user to update and modify their identities in the database.
- For that you to give input as uid because uid is a primary key of your identity table so you can update existing identities in the database.
- It will update an identity successfully.

Delete identity:

- These process helps user to delete particular identity from database using your unique id.
- It will delete an identity successfully.

List identity:

- These process helps user to the identity which are all created inside database.
- Idententities listed successfully.

[2.4] Expected result:

These application helps as to

- Create an new identity
- Update an existing identity
- Delete an identity
- List an identity which are all inserted in database

These are all the outcome which will come as a result by these IAM application.

[2.5] Scope of the application:

Scope:

- These Identity access management application helps us to access an identity and also manage an database.
- It helps user to gain a good experience by using this app.
- This application is less in cost so anybody can afford to use it.
- Secured application for user.

Limitation:

- We can’t give same user id for 2 members in the database.
- Possibility of getting an error while logging in to the database
- Date of birth as a format in database if you gave date first and month second it will show error we need to give month / date/ year to enter the date in database.

Evolution:

- We are trying to develop this IAM application in a web based software.
- And also, we are trying to add other feature like export details and import into other system in this application.

3.Conception

[3.1] **Data structures:**

- Boolean
- Set
- String
- Array list

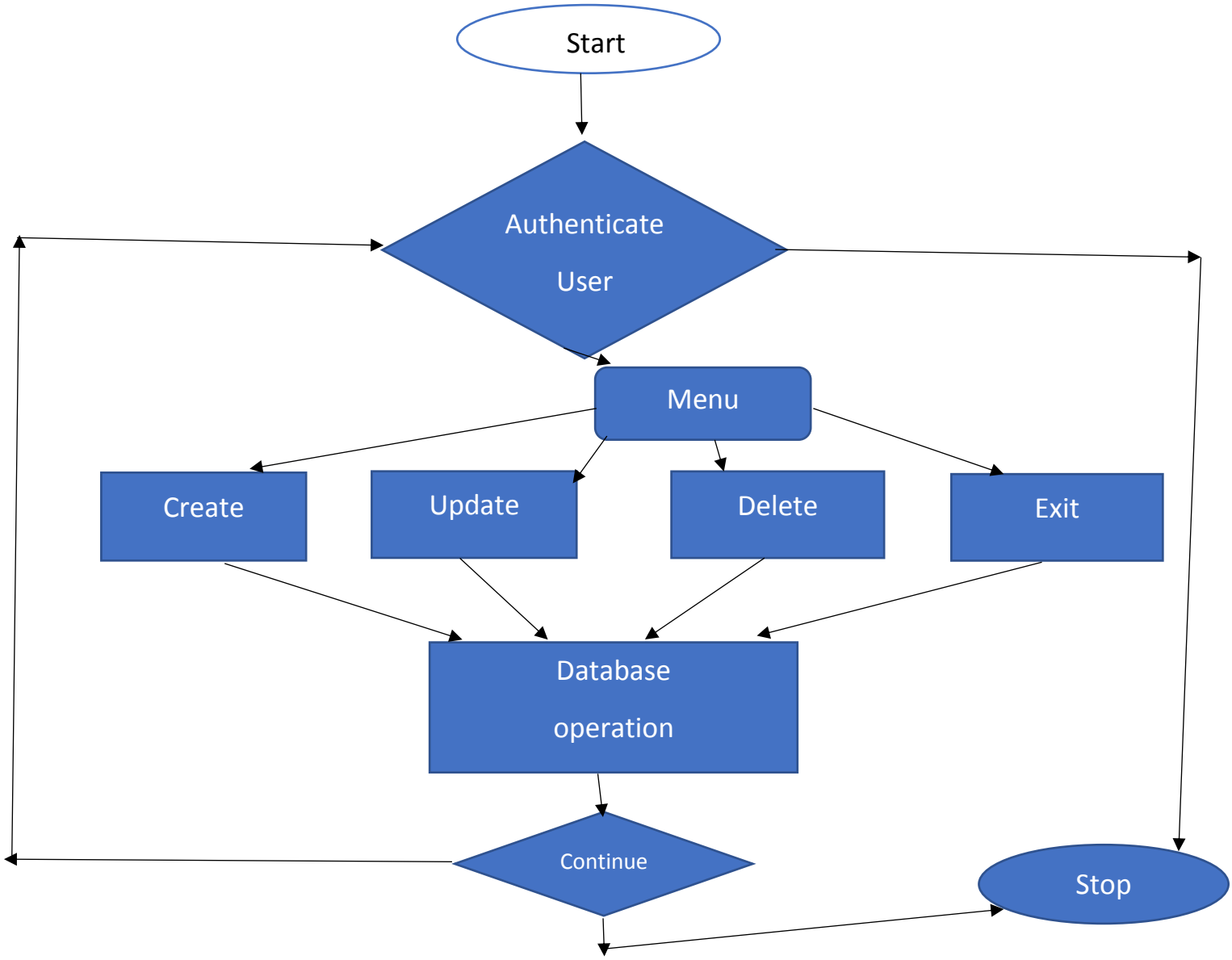
This are all the data structures which was used in these applications.

List is used to store the collection of identities

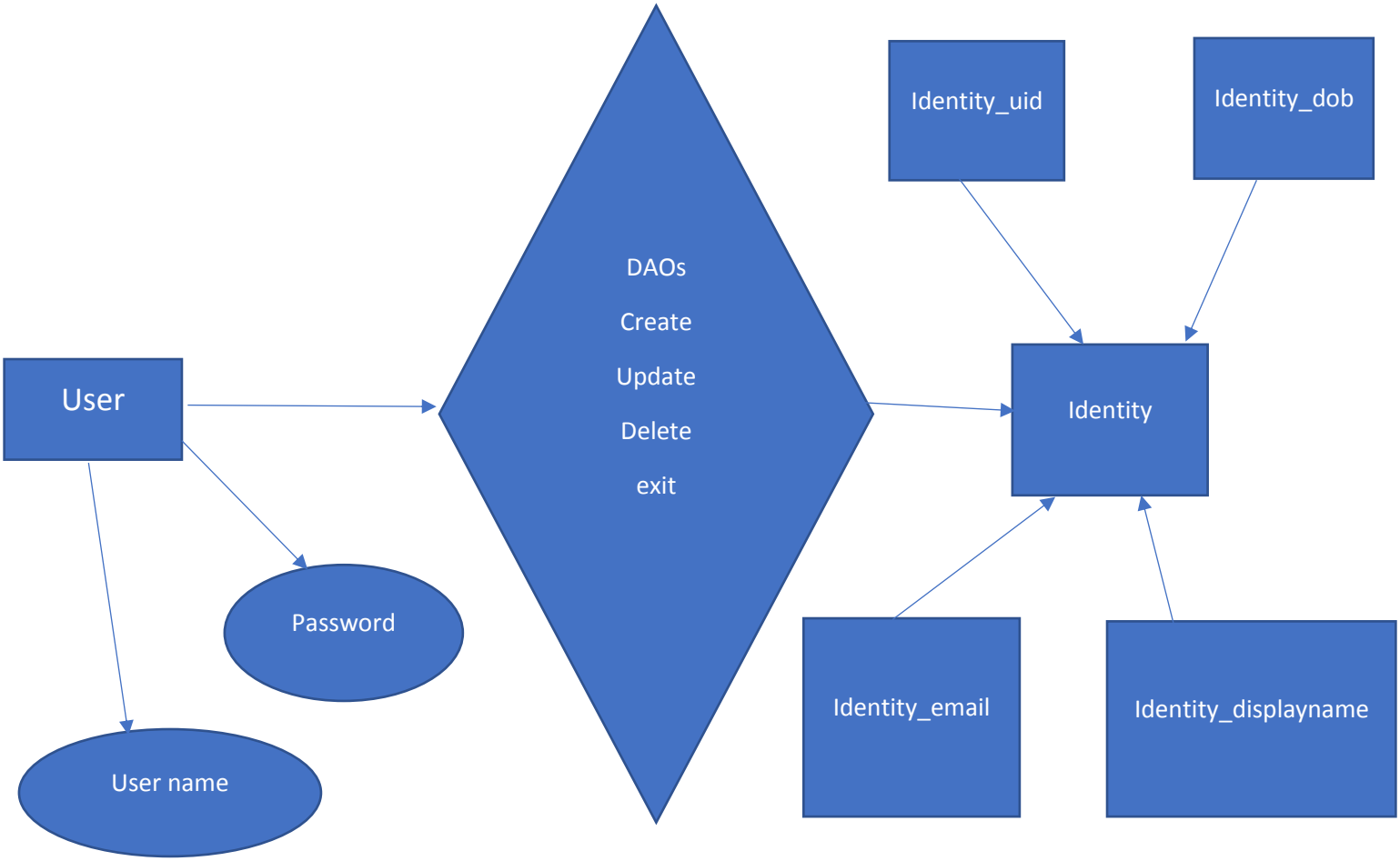
String is mostly used data structure in these application.

Boolean is used for validating a user into the database

[3.2] **Global application flow:**



[3.3] **Global Schema and major schema features**



4.CONSOLE OPERATIONS DESCRIPTIONS

Console Operations Implemented in this Systems are

1. Authenticate user
2. Create an Identity
3. Update an existing Identity
4. Delete an Identity

Each Operations are explained below

Authenicate User

User authentication is done by an authenticate method , that takes input as username and password, and calls a validateUser method which connects to the database and authenticates the user if provided credentials are correct, else will not authenticate the user and system stops.

Create an Identity

This console operations allows an authenticated user to create a new identity. Identity Uid, name and email are provided by the user.The method used for creating a new identity is createIdentity.

Update an Identity

This console operation allows a user to update an existing identity.To update an identity the user must provide the uid of an identity, which is to be updated.The method used is updateIdentity

Delete an Identity

This console operation allows a user to delete an existing identity and the user is supposed toprovide the uid of the identity which is to be deleted. Method used is deleteIdentity

List an identity

This console operation allows user to display the list of identities from the database, which was created by user .

5.CONFIGURATION

Username : prem

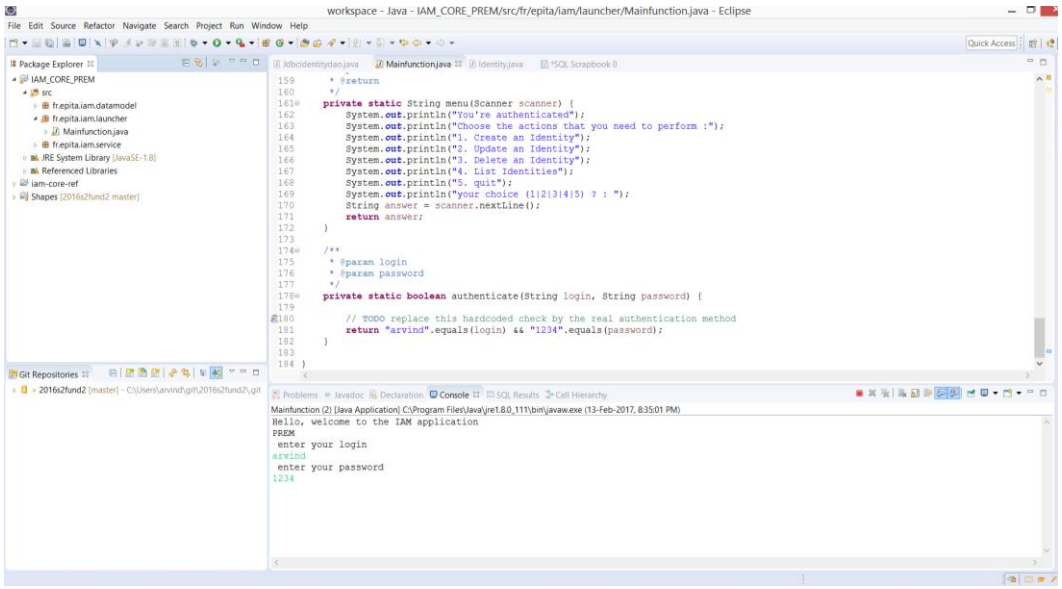
Password : prem

Database : Derby

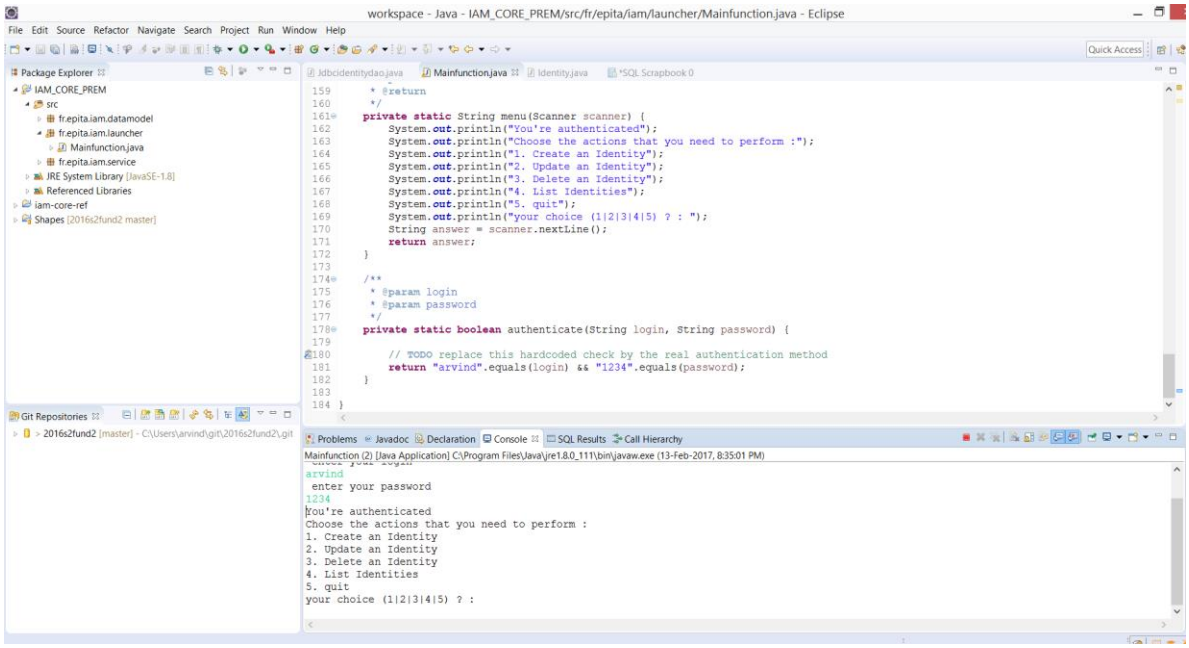
Drivers : Derby Embedded Driver

Port : 1527

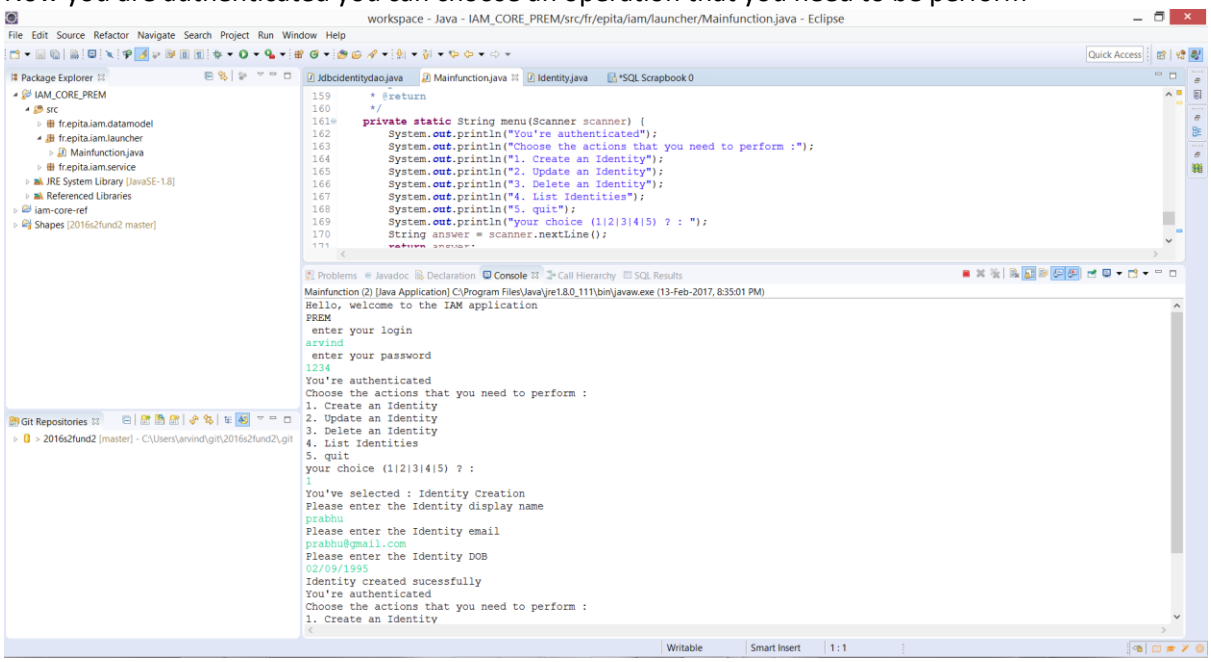
6. Commented Screenshots



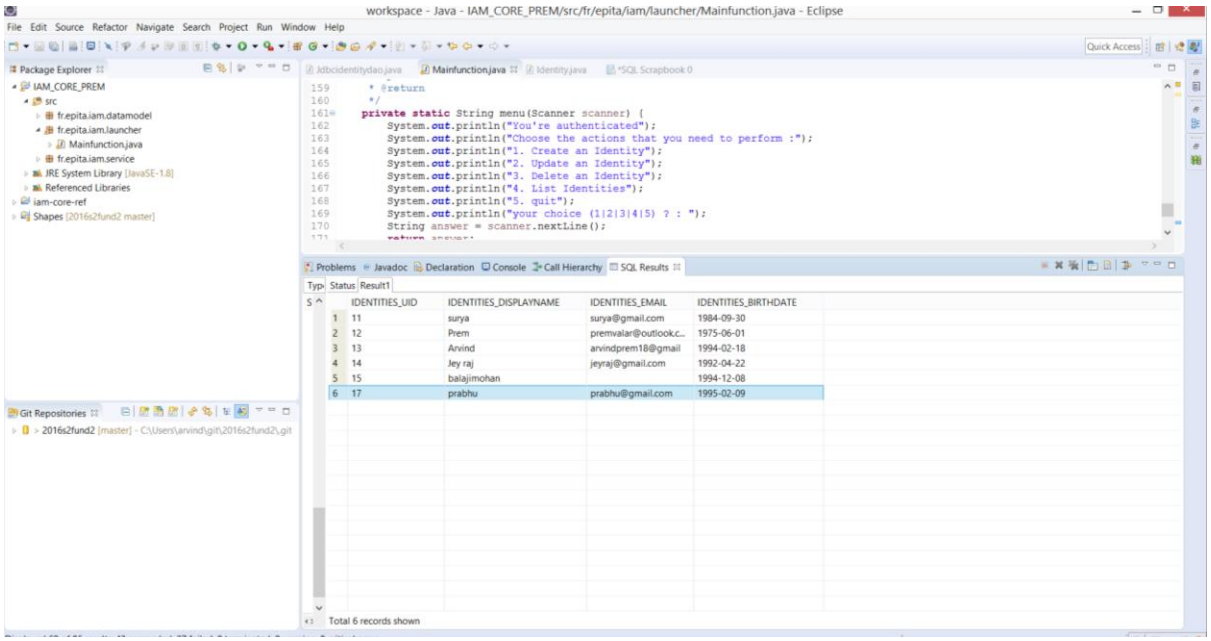
To get authenticated into the application we need enter our login name and password



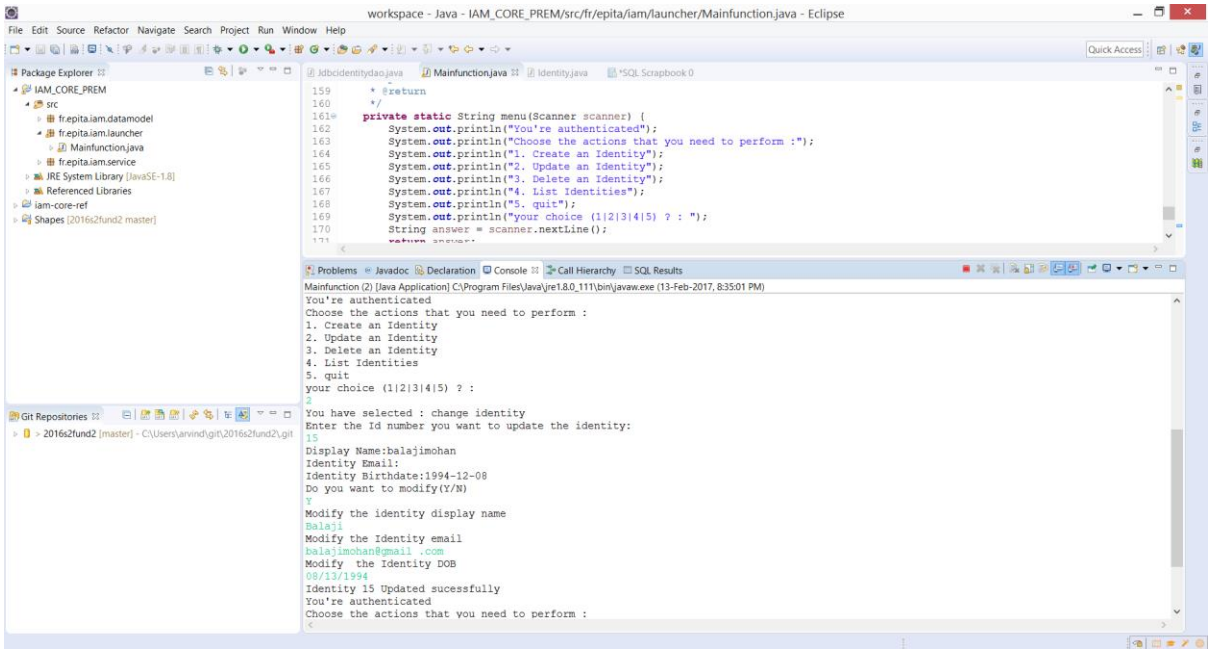
Now you are authenticated you can choose an operation that you need to be perform



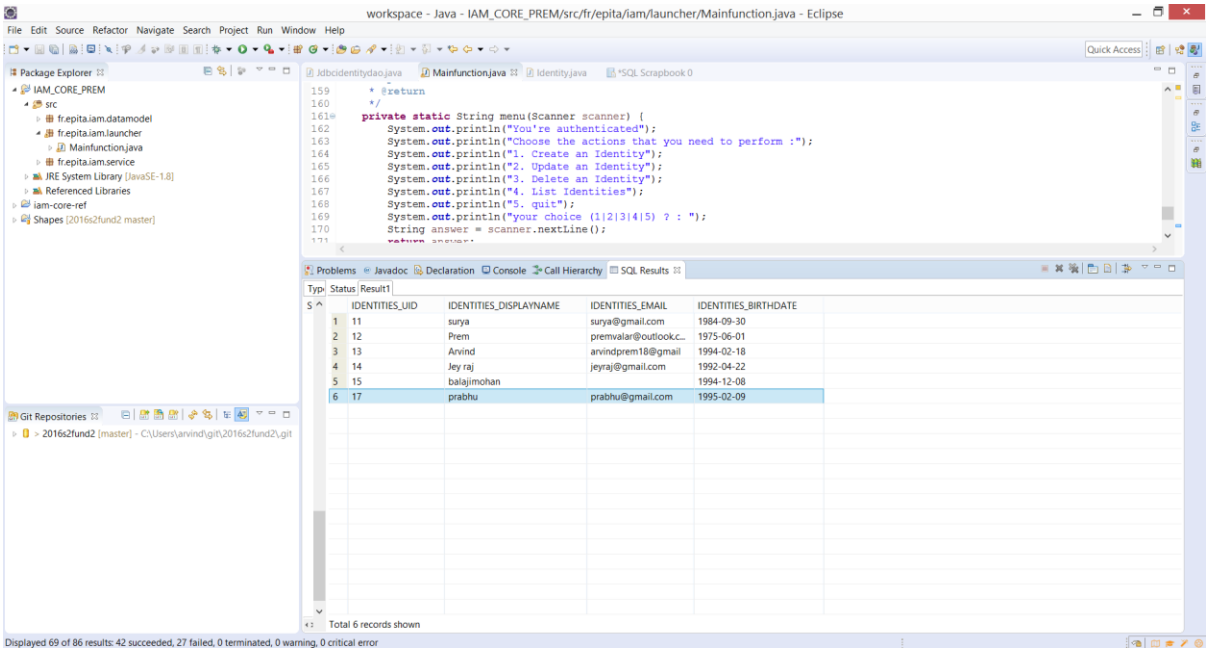
You have selected option 1 to create an identity
You have created your identity successfully



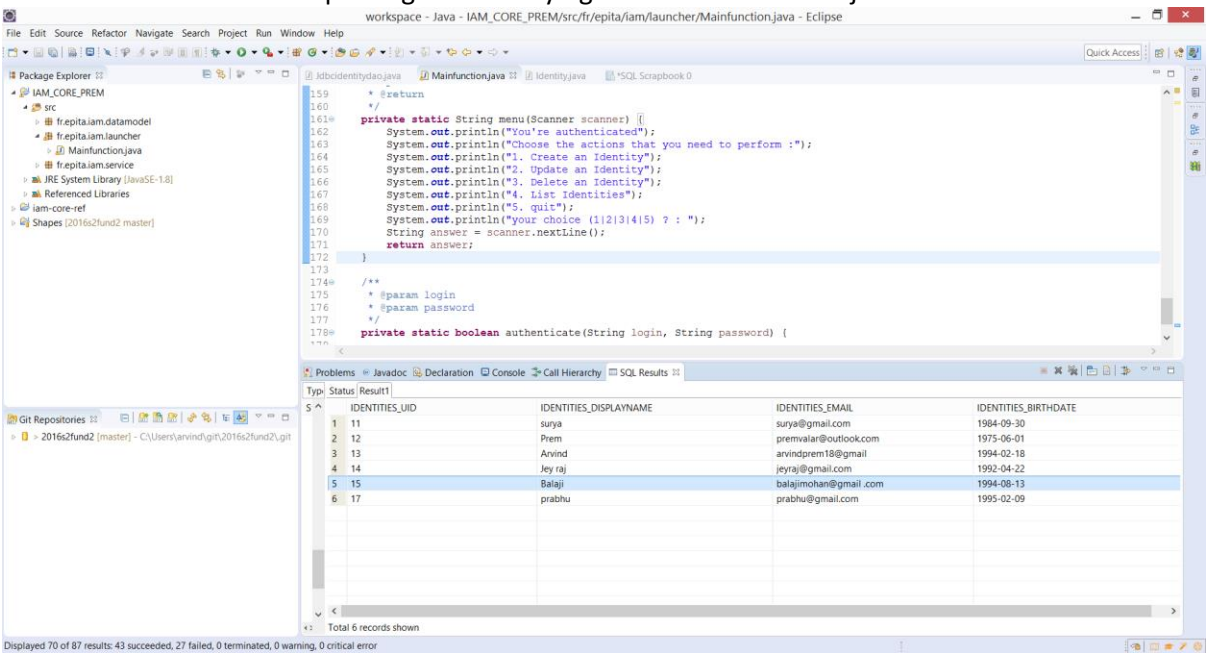
You can check your created identity in your table which was stored in database
This is the identity you created. It was created successfully



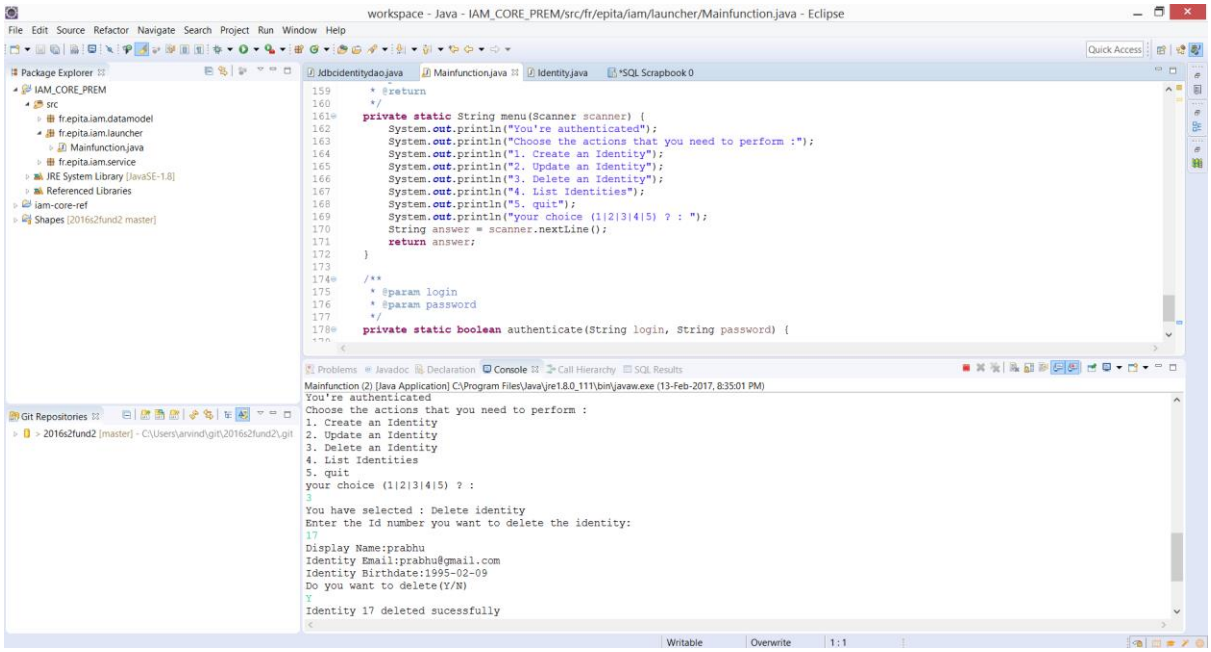
Now you have selected option 2 to update and modify an identity
You need to give uid of that particular identity which you need to change
It was updated successfully



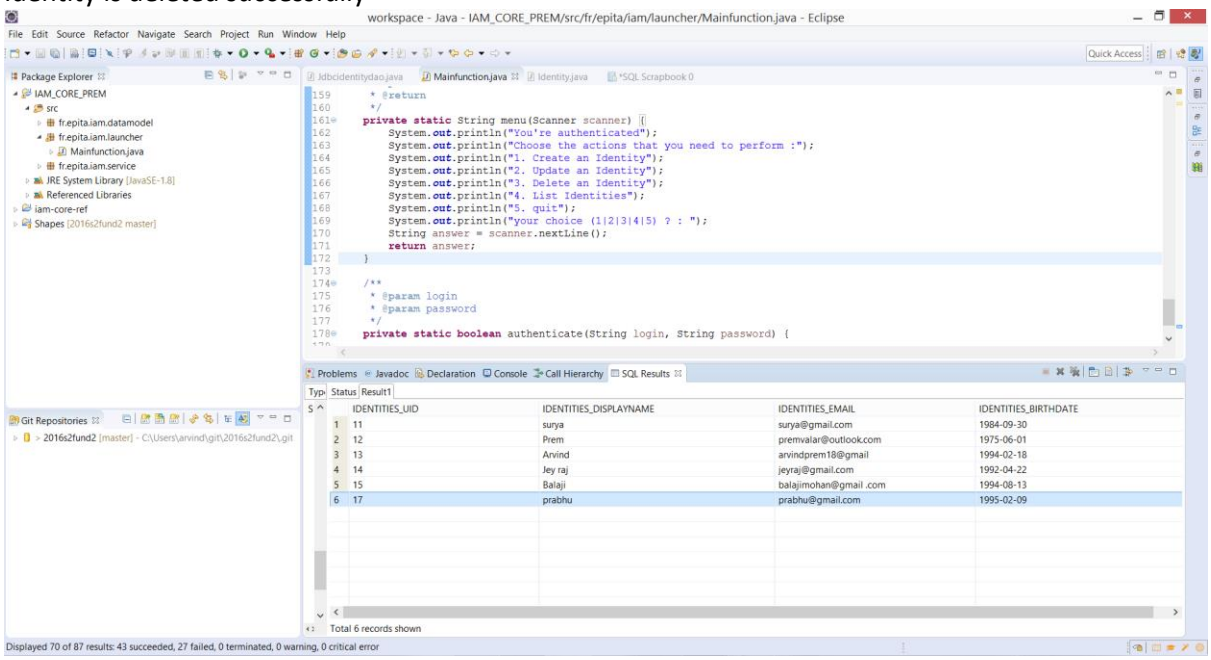
This was the table before updating and modifying a information of Balaji



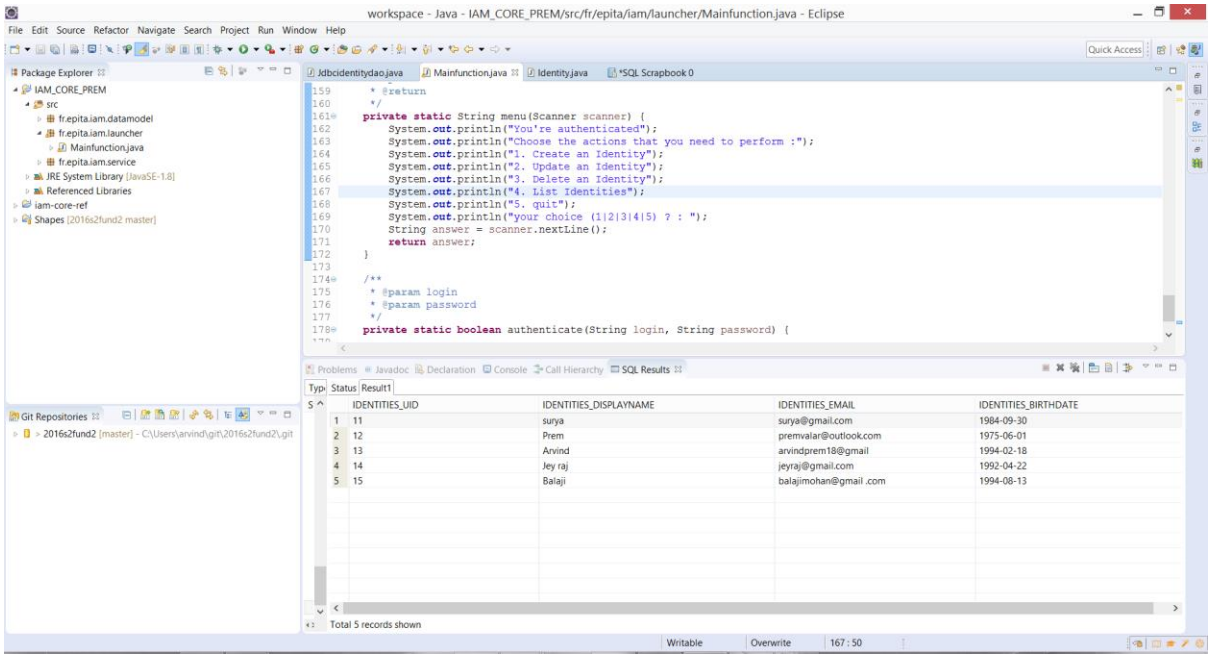
This table is after updating and modifying the information of Balaji
It updated successfully



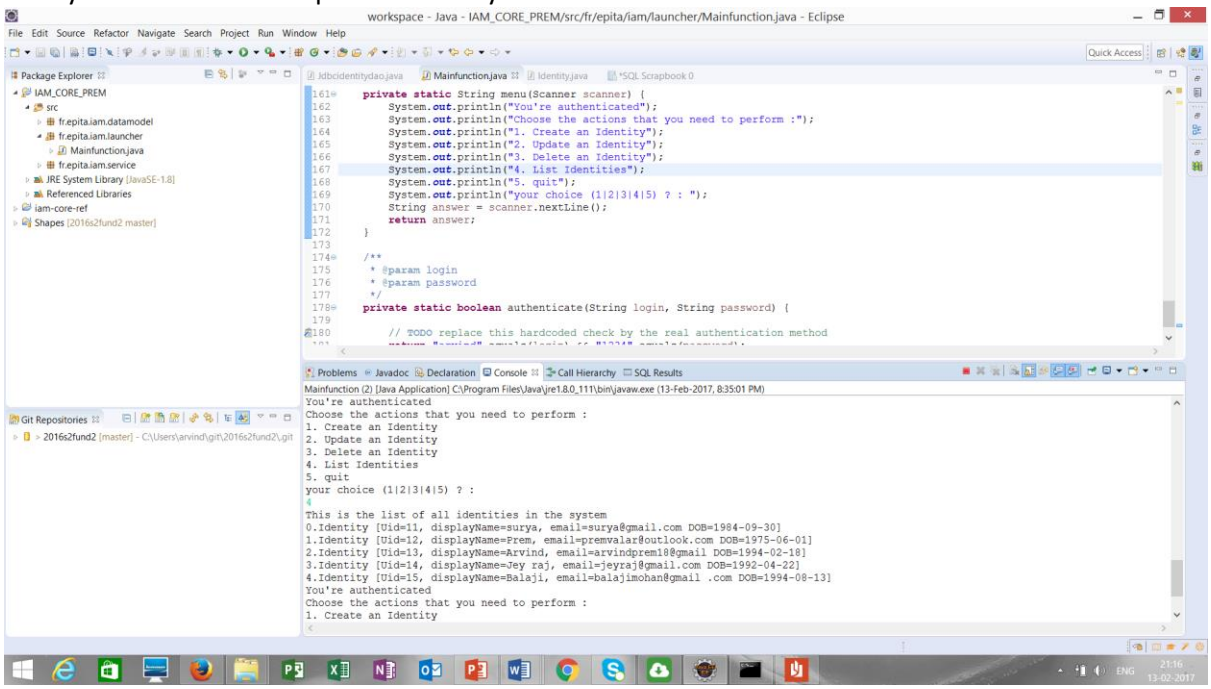
Now you have selected the option 3 delete an identity from table
For that also you need to give the user identity to delete that particular data
Identity is deleted successfully



These table is before deleting the file prabhu using is user id



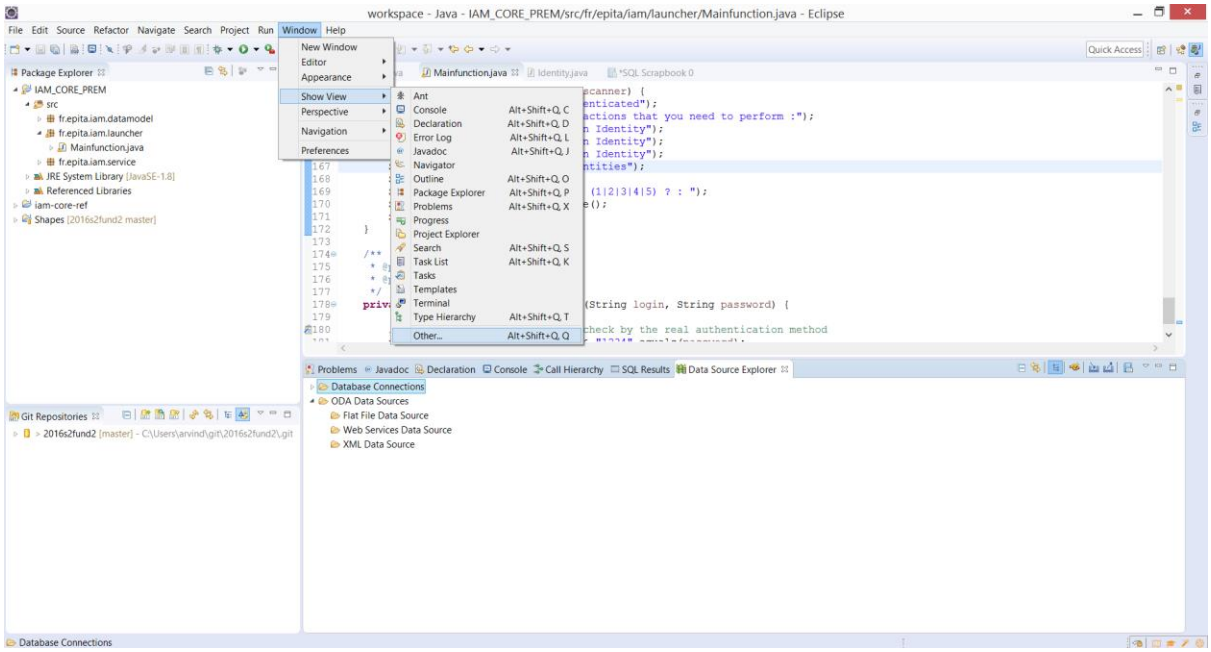
Now you can see that the prabhu identity is deleted from database

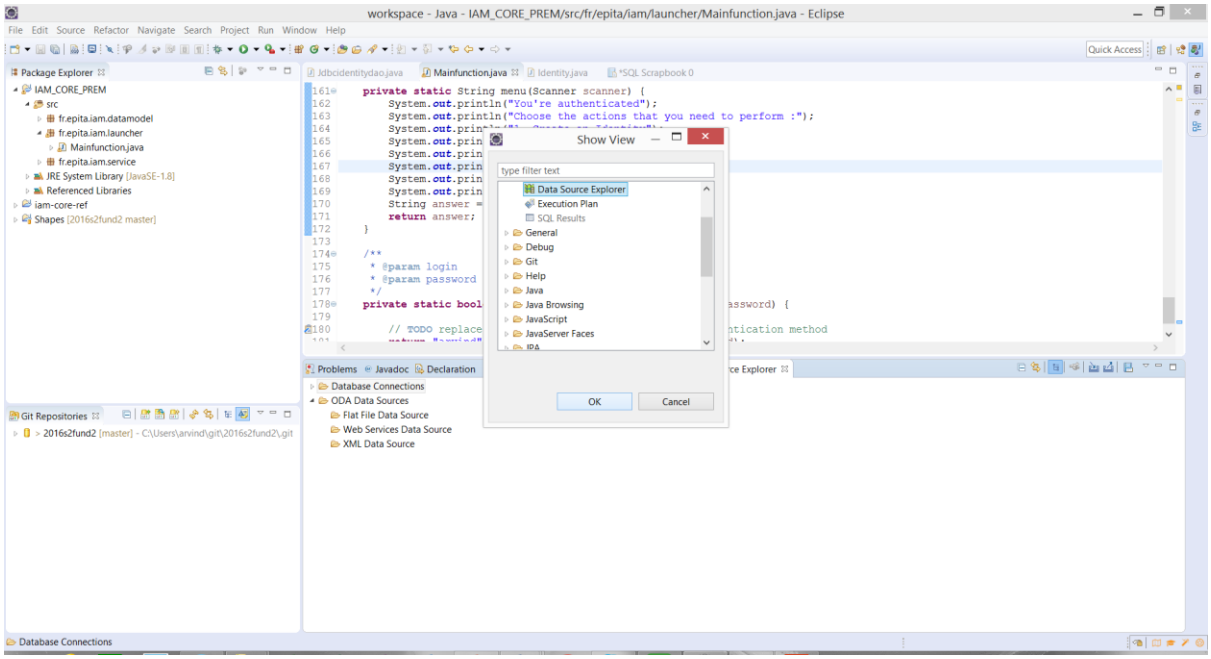


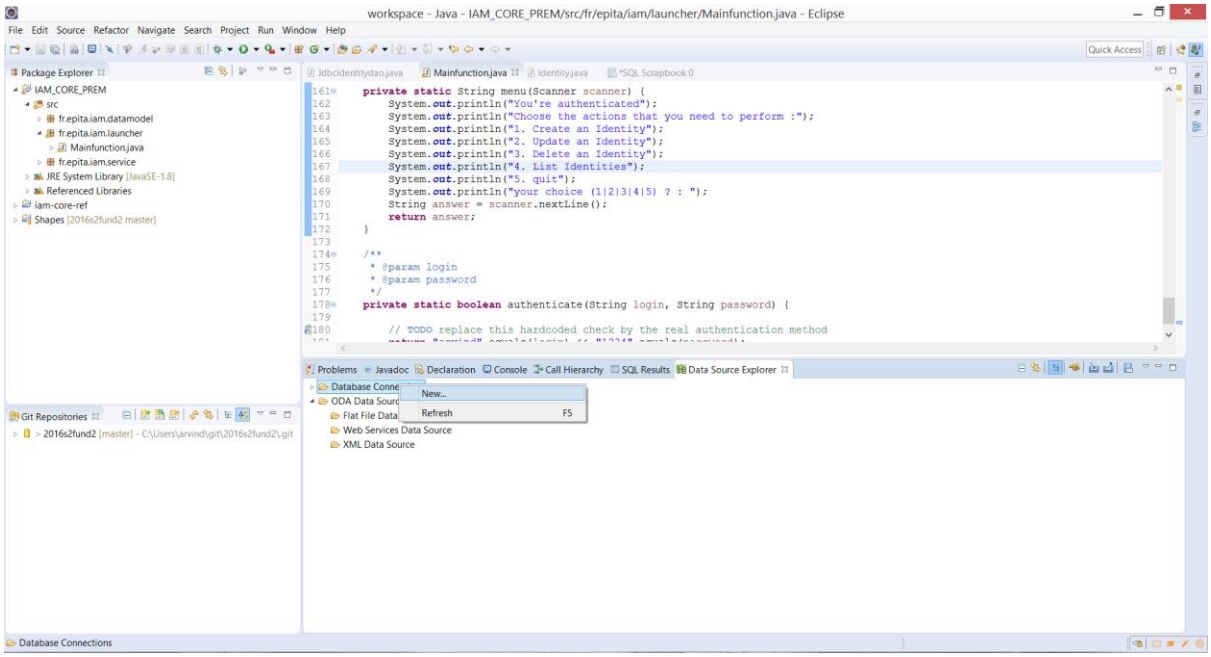
Now you have selected the option 4 list an identities
So you can see what are identities you have created till now in database

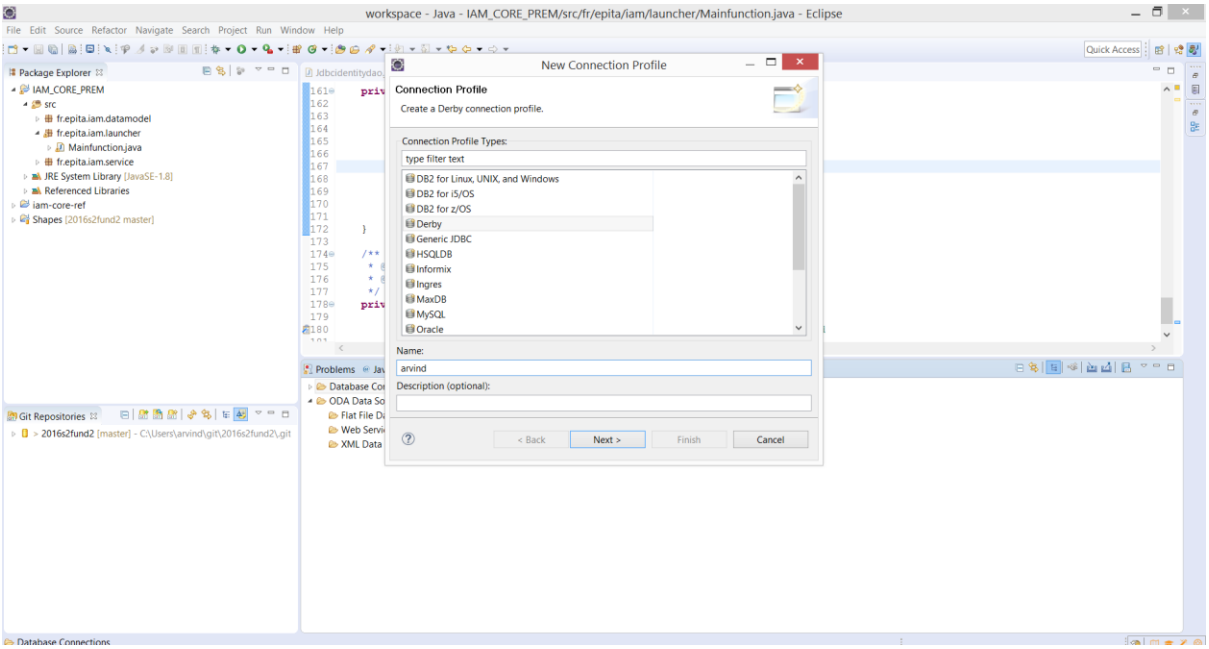
These is four are the operations we can perform in IAM application it was explained clearly through screen shots

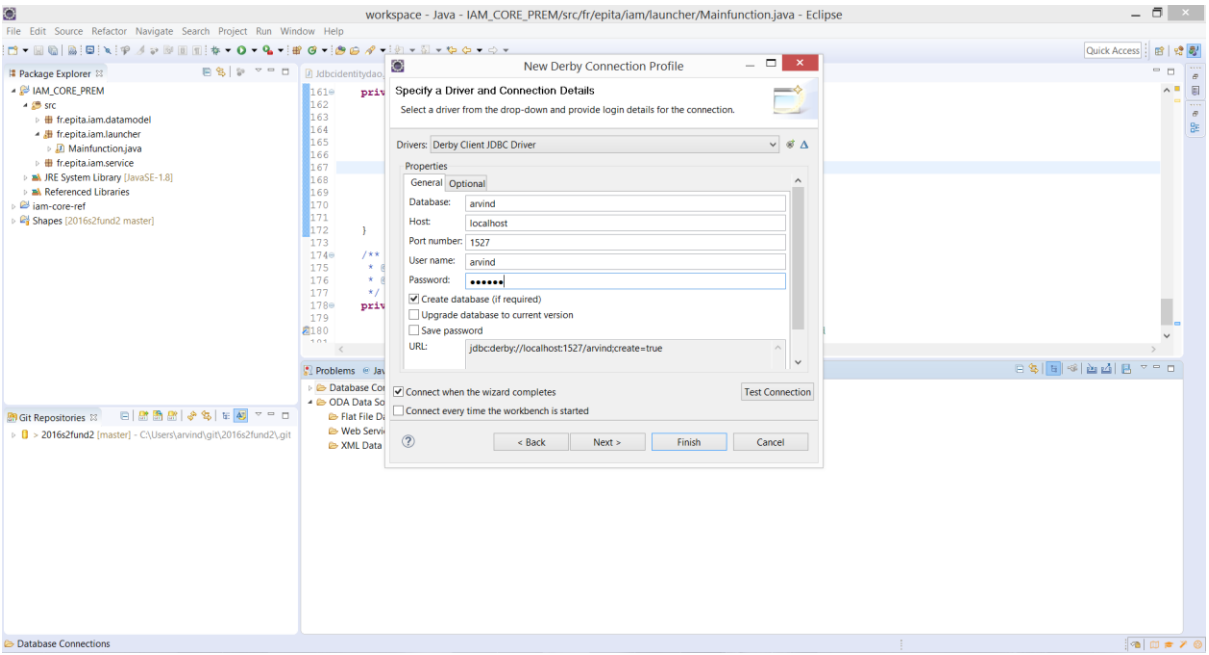
These screenshots is based on how we need to connect derby database:

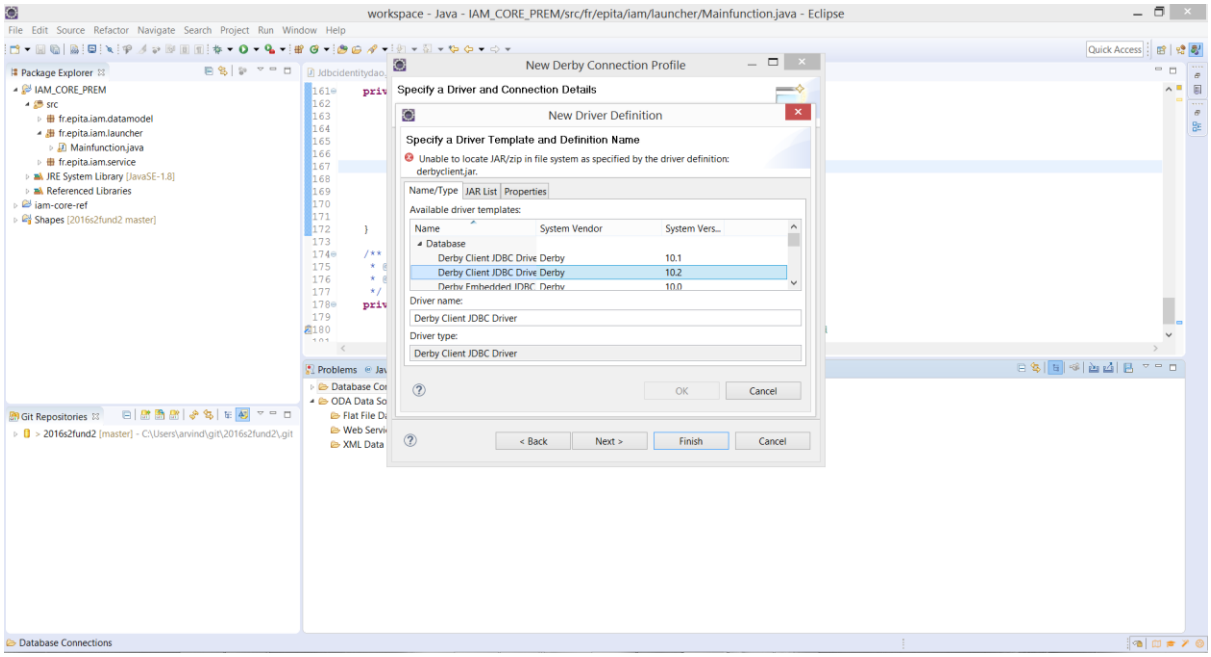


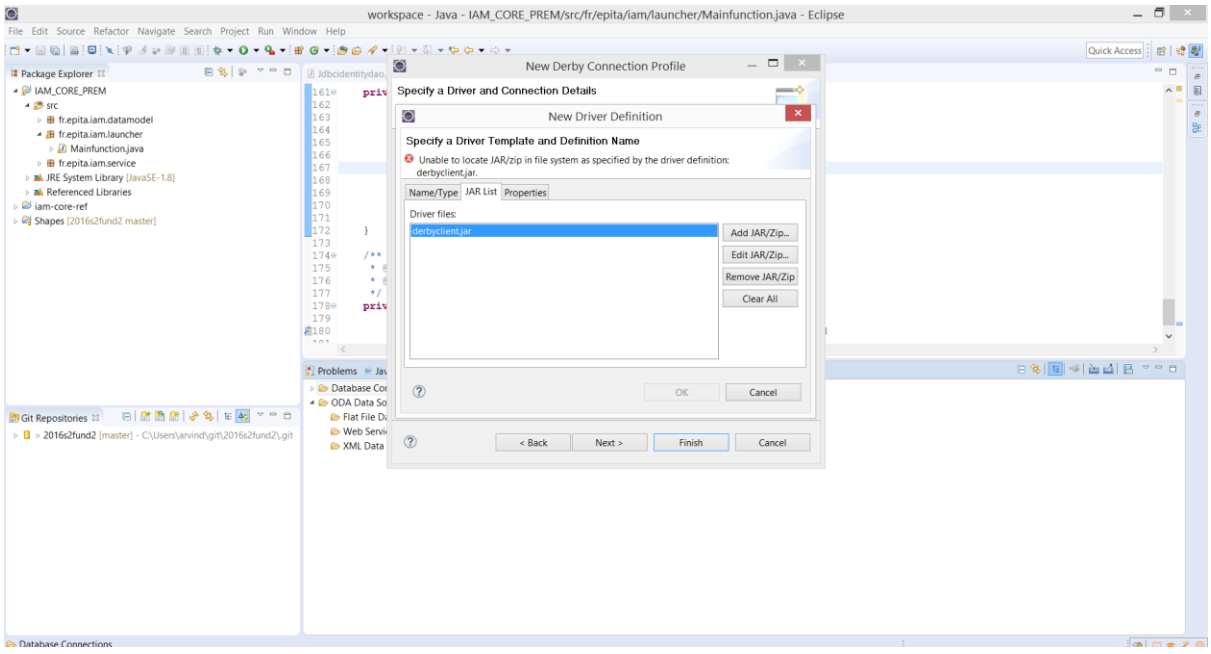

workspace - Java - IAM_CORE_PREM/src/fr/epita/iam/launcher/Mainfunction.java - Eclipse
Show View
type filter text
Data Source Explorer
Execution Plan
SQL Results
General
Debug
Git
Help
Java
Java Browsing
JavaScript
JavaServer Faces
OK
Cancel

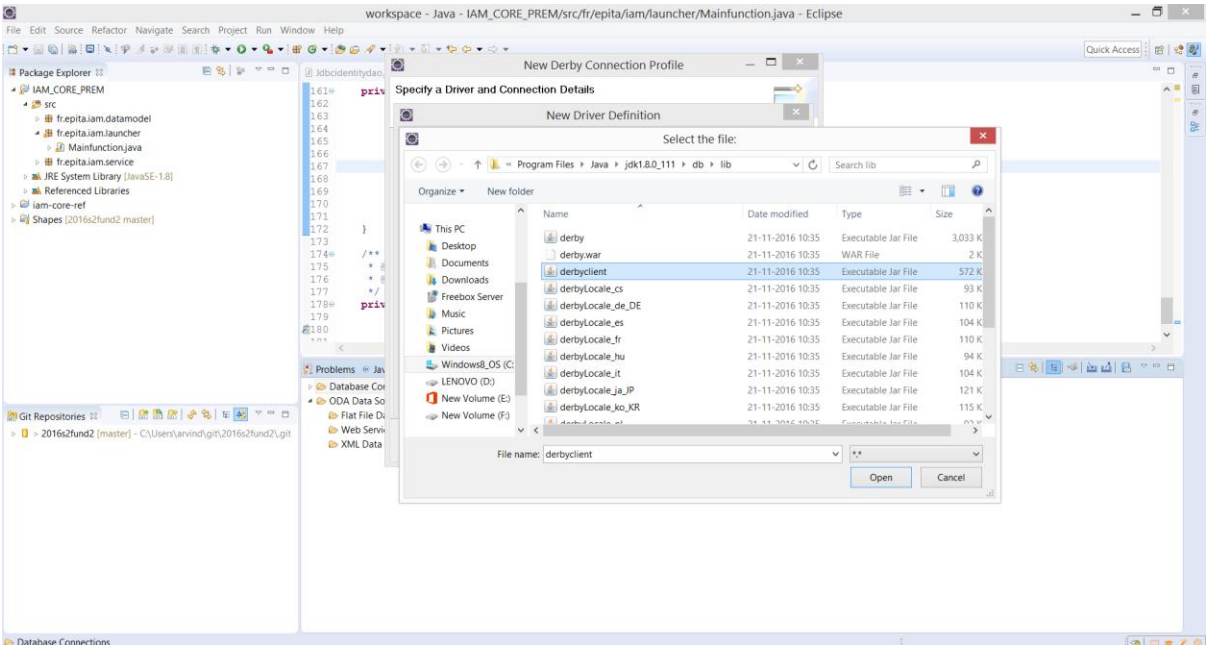

workspace - Java - IAM_CORE_PREM/src/fr/epita/iam/launcher/Mainfunction.java - Eclipse
New...
Refresh
F5

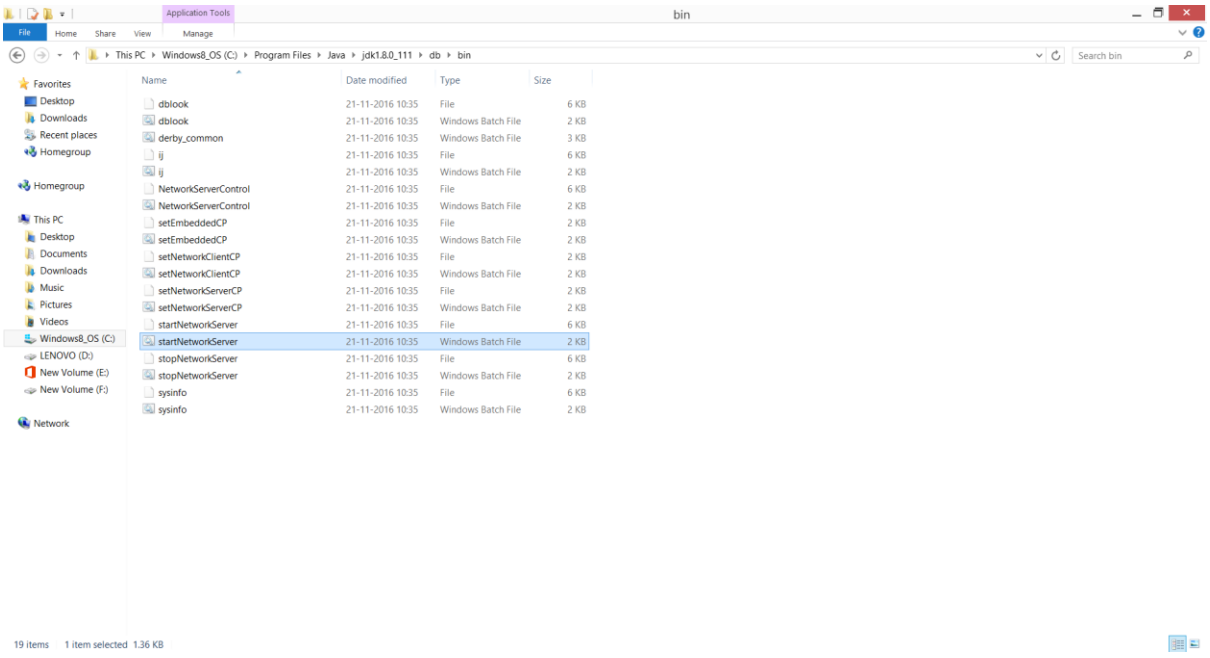

workspace - Java - IAM_CORE_PREM/src/fr/epita/iam/launcher/Mainfunction.java - Eclipse
New Connection Profile
Connection Profile
Create a Derby connection profile.
Connection Profile Types:
type filter text
DB2 for Linux, UNIX, and Windows
DB2 for i5/OS
DB2 for z/OS
Derby
Generic JDBC
HSQLDB
Informix
Ingres
MaxDB
MySQL
Oracle
Name:
arvind
Description (optional):
< Back
Next >
Finish
Cancel

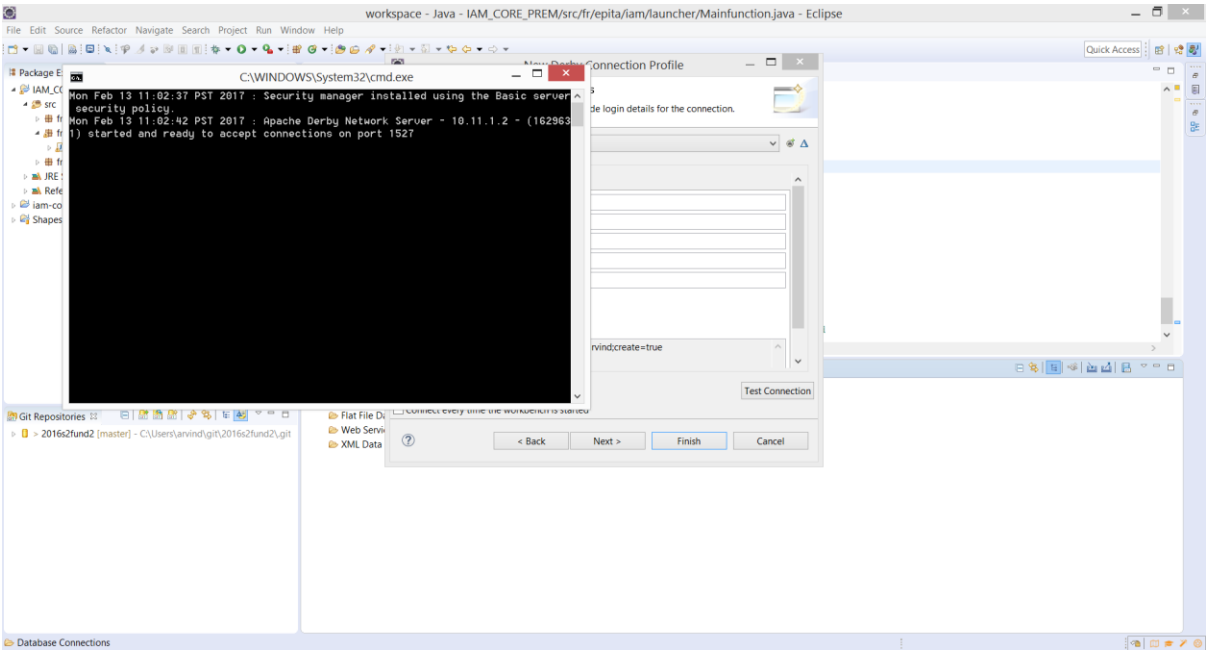

workspace - Java - IAM_CORE_PREM/src/fr/epita/iam/launcher/Mainfunction.java - Eclipse
New Derby Connection Profile
Specify a Driver and Connection Details
Select a driver from the drop-down and provide login details for the connection.
Drivers: Derby Client JDBC Driver
Properties
General
Optional
Database: arvind
Host: localhost
Port number: 1527
User name: arvind
Password:
Create database (if required)
Upgrade database to current version
Save password
URL: jdbc:derby://localhost:1527/arvind;create=true
Connect when the wizard completes
Test Connection
Connect every time the workbench is started
< Back
Next >
Finish
Cancel

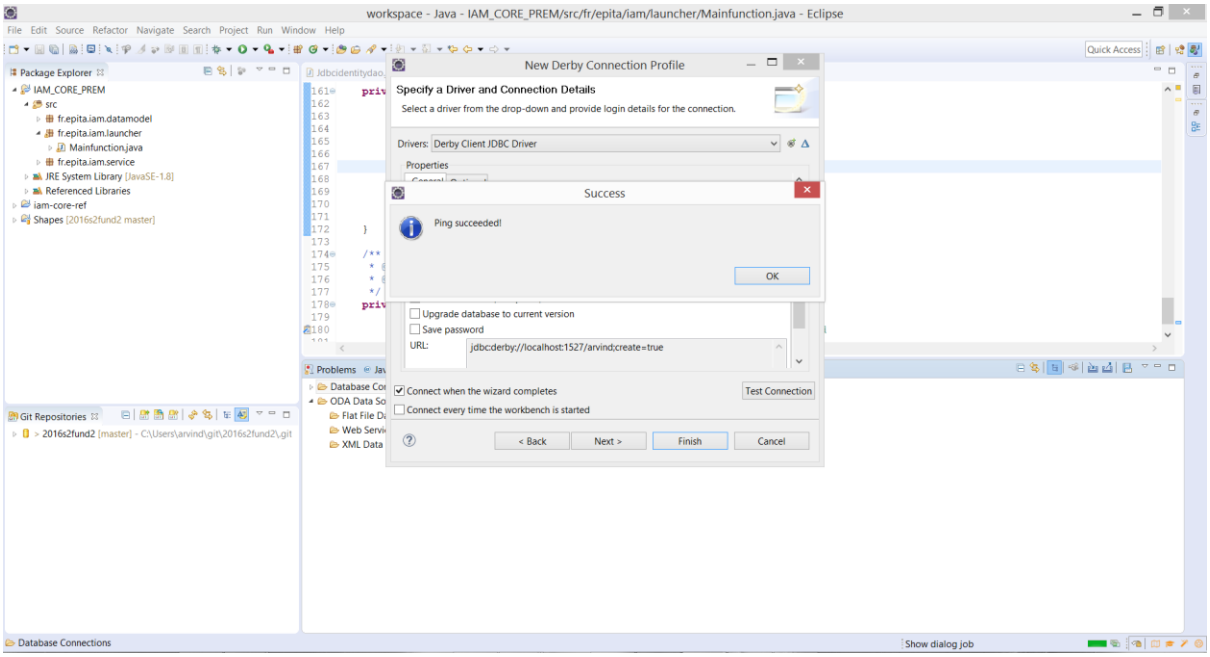

workspace - Java - IAM_CORE_PREM/src/fr/epita/iam/launcher/Mainfunction.java - Eclipse
New Derby Connection Profile
Specify a Driver and Connection Details
New Driver Definition
Specify a Driver Template and Definition Name
Unable to locate JAR/zip in file system as specified by the driver definition:
derbyclient.jar.
Name/Type
JAR List
Properties
Available driver templates:
Name
System Vendor
System Vers...
Database
Derby Client JDBC Drive Derby
10.1
Derby Client JDBC Drive Derby
10.2
Driver name:
Derby Client JDBC Driver
Driver type:
Derby Client JDBC Driver
OK
Cancel
< Back
Next >
Finish
Cancel

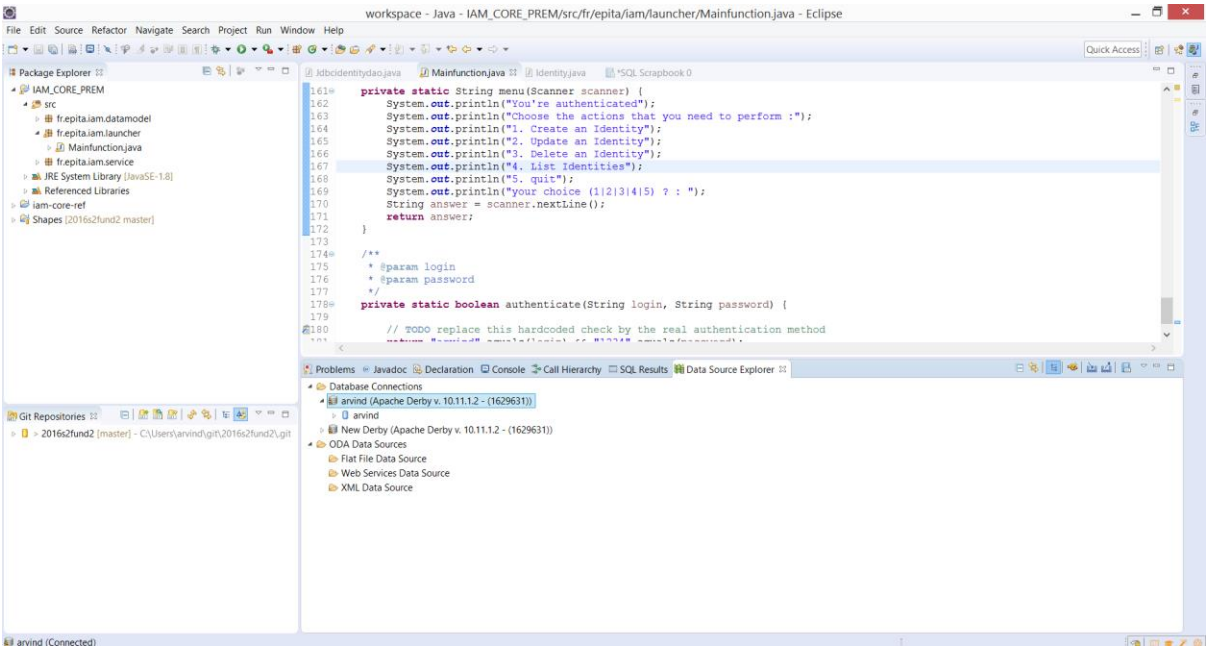

workspace - Java - IAM_CORE_PREM/src/fr/epita/iam/launcher/Mainfunction.java - Eclipse
New Derby Connection Profile
Specify a Driver and Connection Details
New Driver Definition
Specify a Driver Template and Definition Name
Unable to locate JAR/zip in file system as specified by the driver definition:
derbyclient.jar.
Name/Type
JAR List
Properties
Driver files:
derbyclient.jar
Add JAR/Zip...
Edit JAR/Zip...
Remove JAR/Zip
Clear All
OK
Cancel
< Back
Next >
Finish
Cancel


workspace - Java - IAM_CORE_PREM/src/fr/epita/iam/launcher/Mainfunction.java - Eclipse
New Derby Connection Profile
Specify a Driver and Connection Details
New Driver Definition
Select the file:
derbyclient
Open
Cancel


bin
startNetworkServer
19 items 1 item selected 1.36 KB


workspace - Java - IAM_CORE_PREM/src/fr/epita/iam/launcher/Mainfunction.java - Eclipse
C:\WINDOWS\System32\cmd.exe
Mon Feb 13 11:02:37 PST 2017 : Security manager installed using the Basic server security policy.
Mon Feb 13 11:02:42 PST 2017 : Apache Derby Network Server - 10.11.1.2 - (1629631) started and ready to accept connections on port 1527
New Derby Connection Profile
Test Connection
< Back
Next >
Finish
Cancel
Git Repositories
Database Connections


workspace - Java - IAM_CORE_PREM/src/fr/epita/iam/launcher/Mainfunction.java - Eclipse
Package Explorer
IAM_CORE_PREM
src
fr.epita.iam.datamodel
fr.epita.iam.launcher
Mainfunction.java
fr.epita.iam.service
JRE System Library [JavaSE-1.8]
Referenced Libraries
iam-core-ref
Shapes [2016s2fund2 master]
New Derby Connection Profile
Specify a Driver and Connection Details
Select a driver from the drop-down and provide login details for the connection.
Drivers: Derby Client JDBC Driver
Properties
Success
Ping succeeded!
OK
Upgrade database to current version
Save password
URL: jdbc:derby://localhost:1527/arvind;create=true
Connect when the wizard completes
Connect every time the workbench is started
Test Connection
< Back
Next >
Finish
Cancel
Git Repositories
Database Connections
Show dialog job



These is how we need to connect derby database server

7.BIBLIOGRAPHY

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