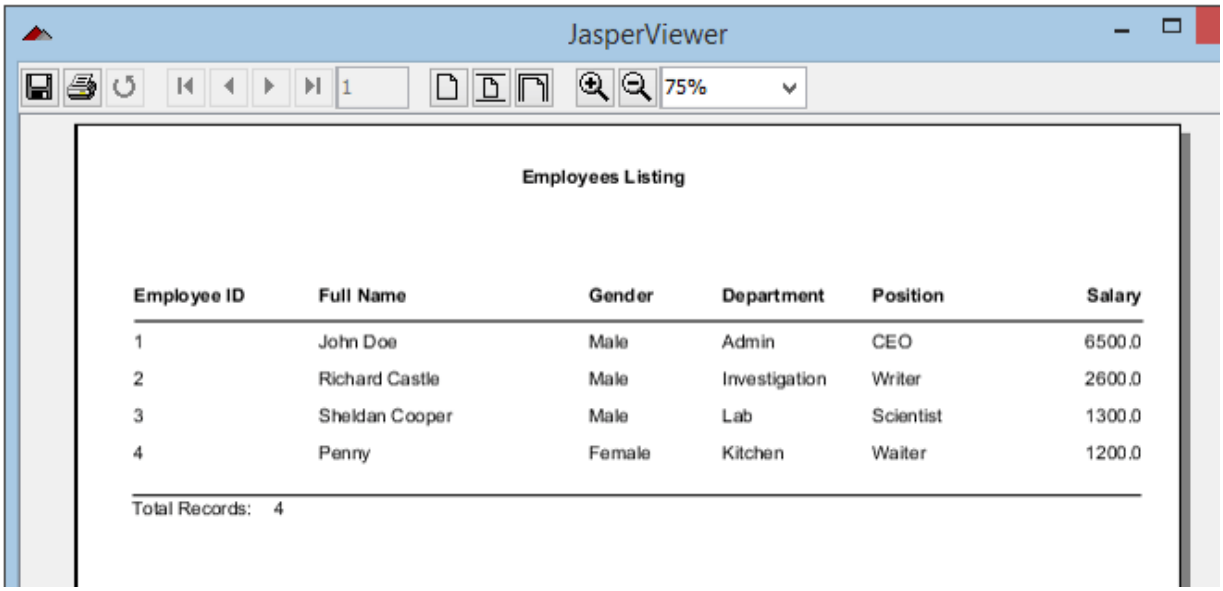
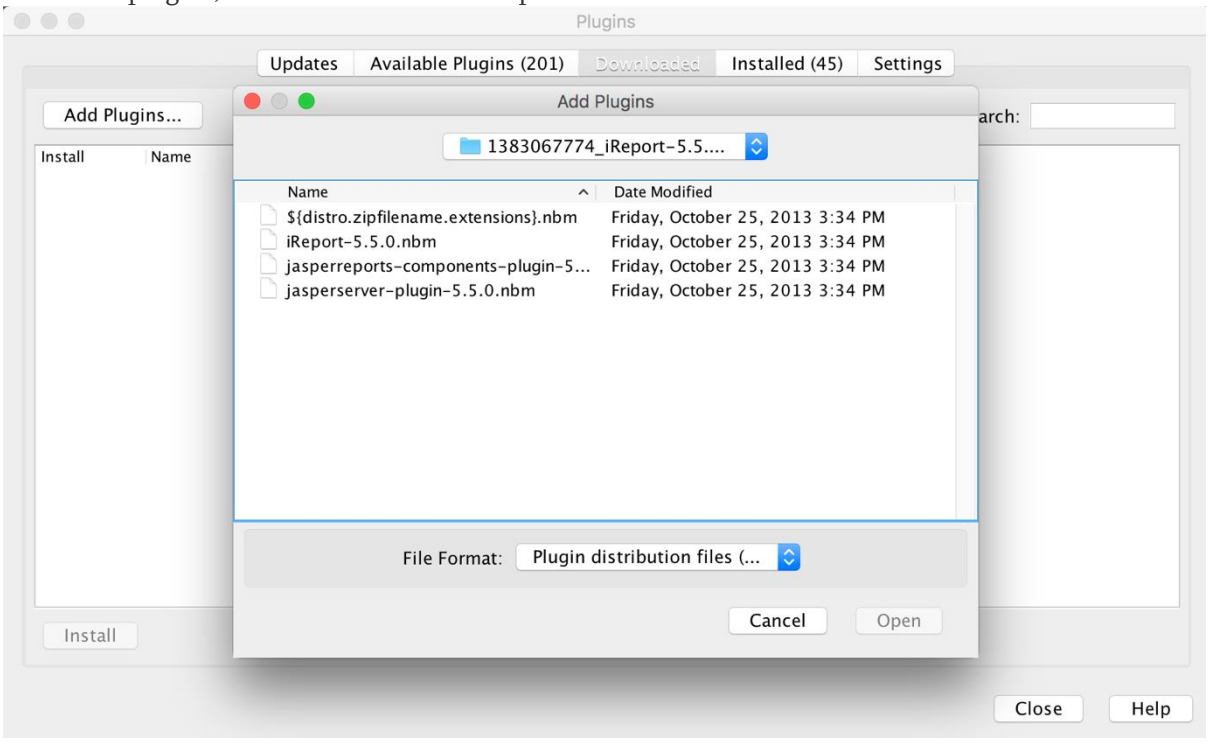
BÀI TẬP TUẦN 6
JasperReports JDBC Datasource Tutorial



1. Getting Started

Download the JasperReports plugin for NetBeans IDE using the link below [NetBeans IDE iReport Plugin Download]

Install the plugin and it will be integrated into NetBeans IDE.
Click menu Tool > Plugin > Downloaded
Click Add plugins, add all files in Folder iReports – 5.5



Adding JasperReports jar files to a NetBeans IDE Java Project.

Right click on Libraries node Select add Jar/Folder option Browse to the libs folder of the iReport directory.

Download and Add file jasperreports-5.6.0.jar

https://sourceforge.net/projects/jasperreports/files/jasperreports/JasperReports%205.6.0/jasperreports-5.6.0.jar/download

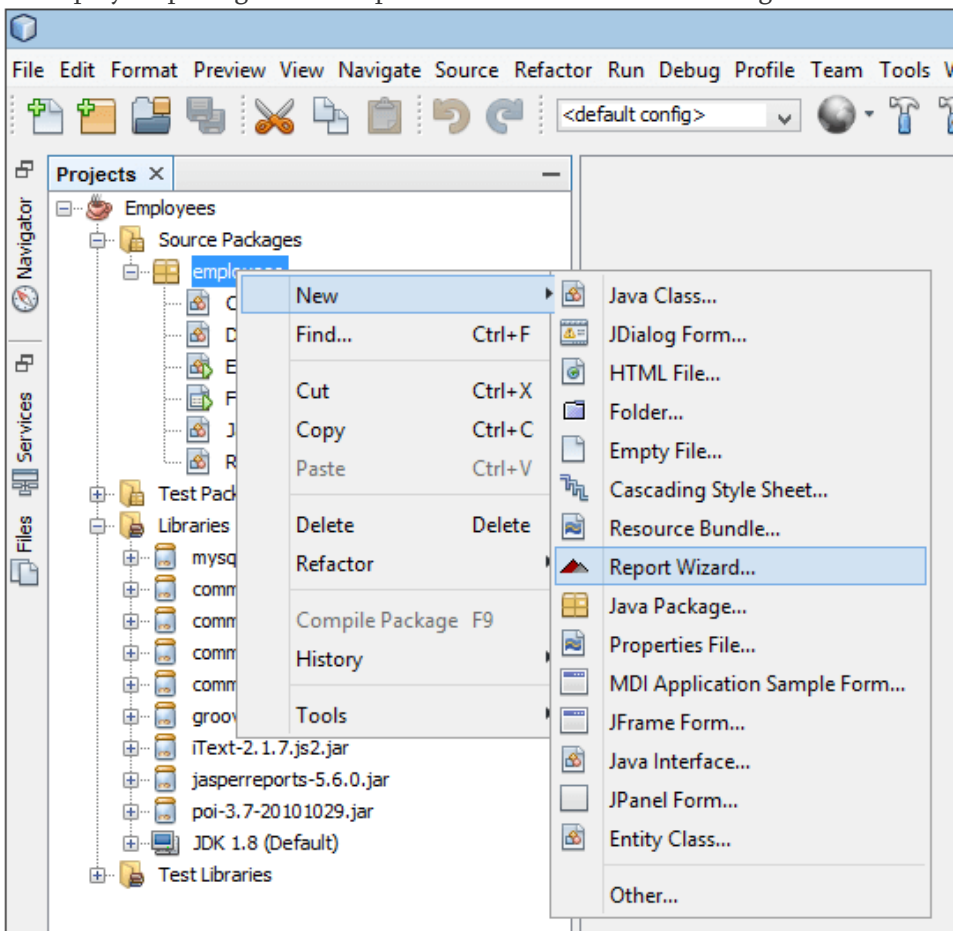
Download and Add the following jar files:
https://sourceforge.net/projects/jasperreports/files/jasperreports/JasperReports%205.6.0/jasperreports-5.6.0-project.zip/download

- **commons-beanutils-1.8.0.jar**
- **commons-collections-3.2.1.jar**
- **commons-digester-2.1.jar**
- **commons-logging-1.1.1.jar**
- **groovy-all-2.0.1.jar**
- **iText-2.1.7.js2.jar**
- **poi-3.7-20101029.jar**

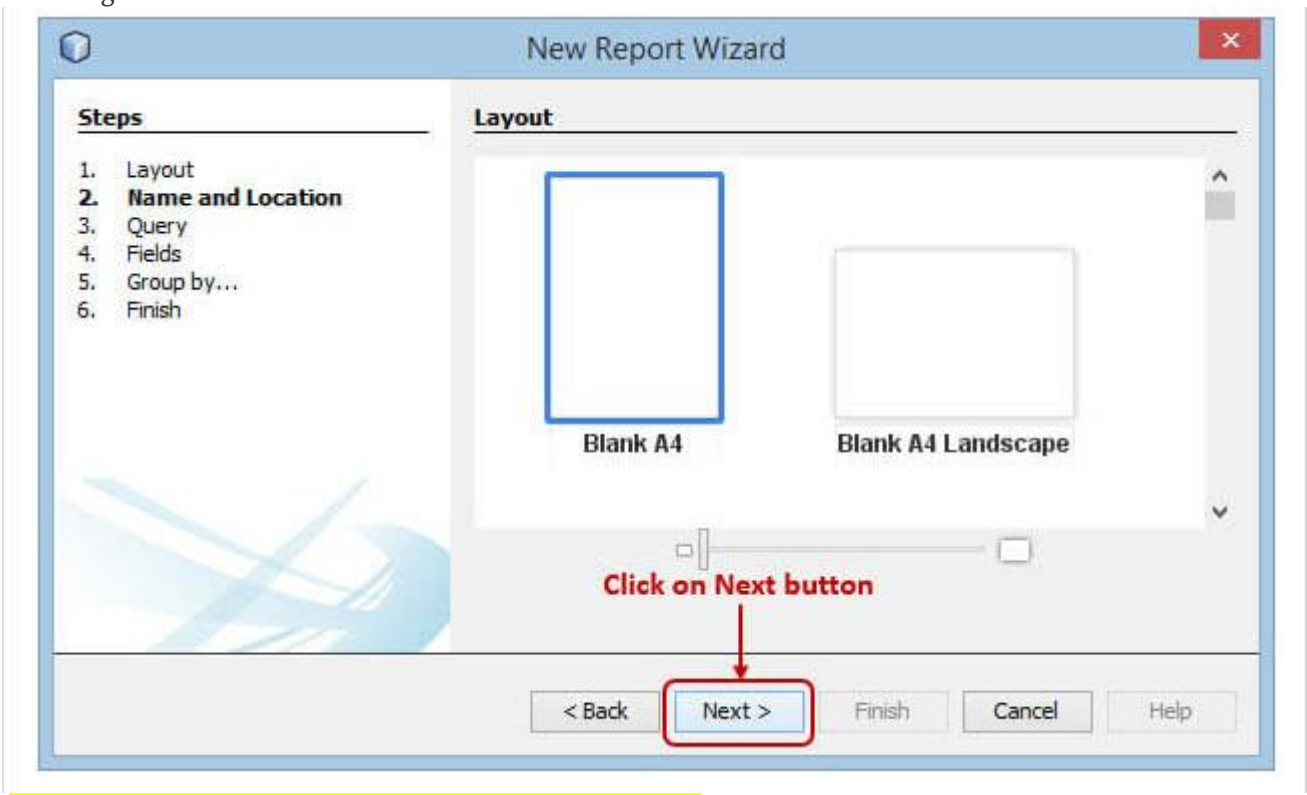
*Note: **the file versions may be different from yours depending on the version of iReports that you download.***

2. NetBeans IDE Creating JasperReports

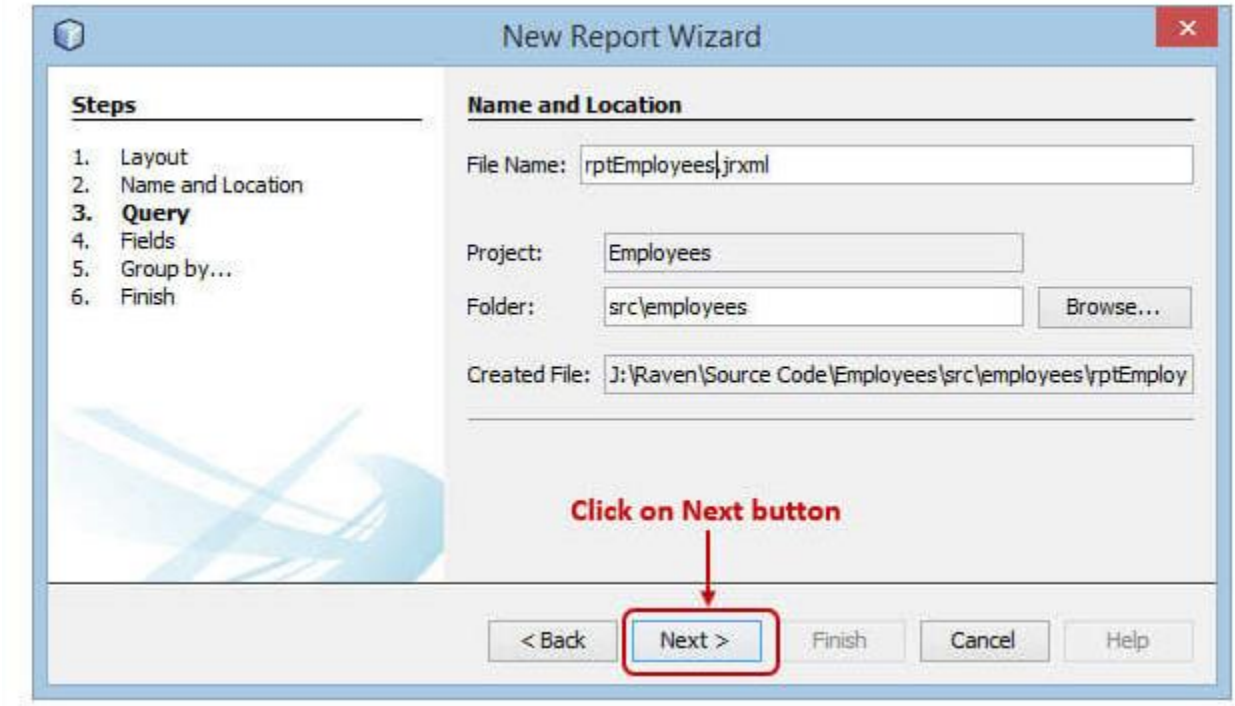
Right click on employees package Select Report Wizard as shown in the image below



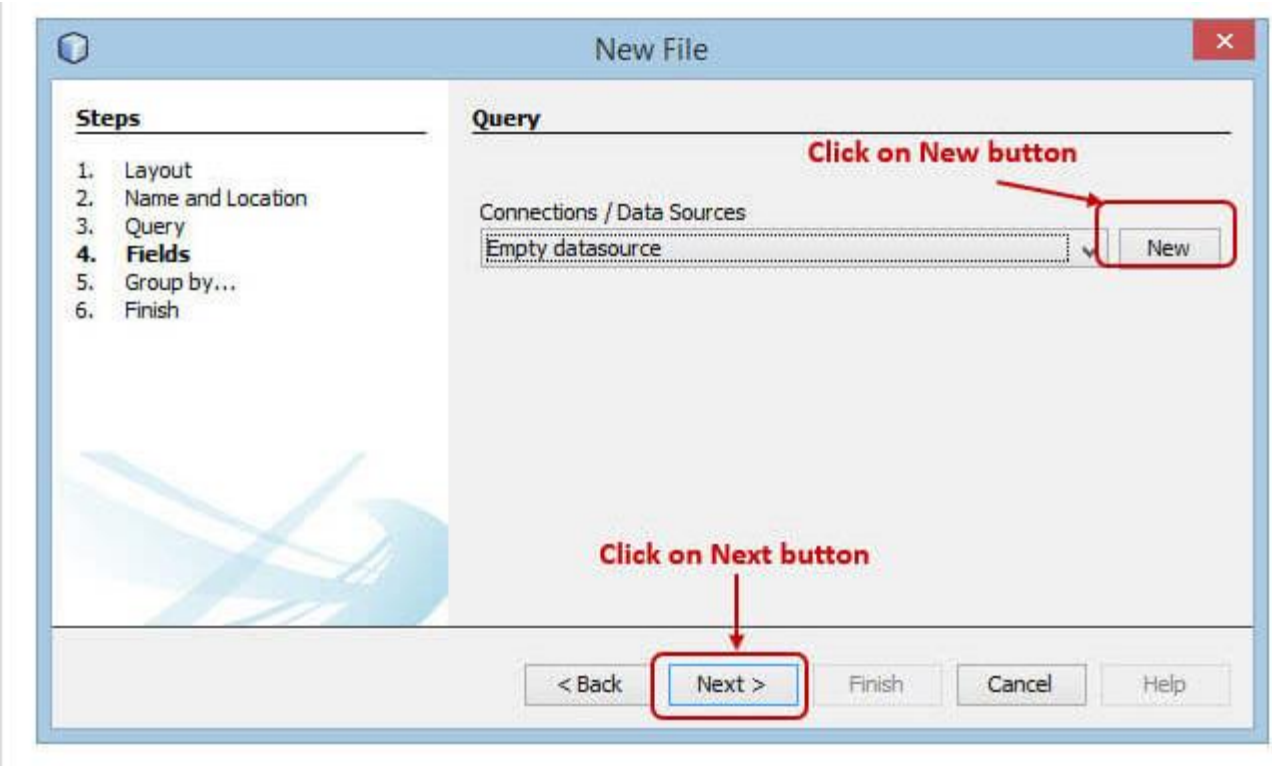
Note: if Report Wizard is not showed, select Other… option. You will get it from there You will get the following window



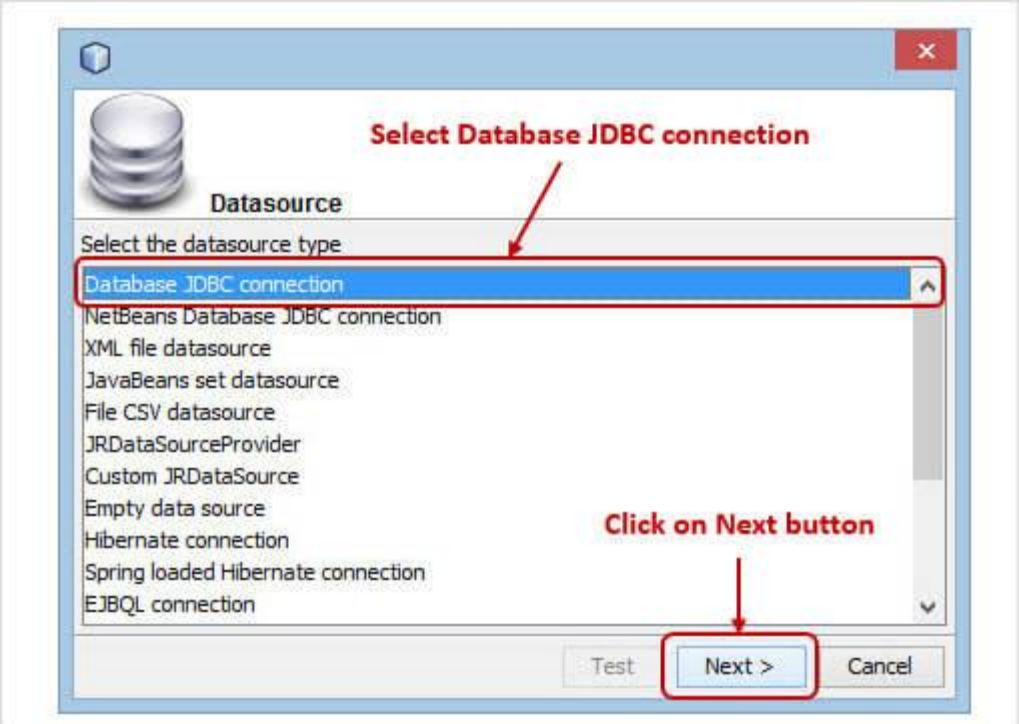
Choose Blank A4 or other Templates. Click on Next button



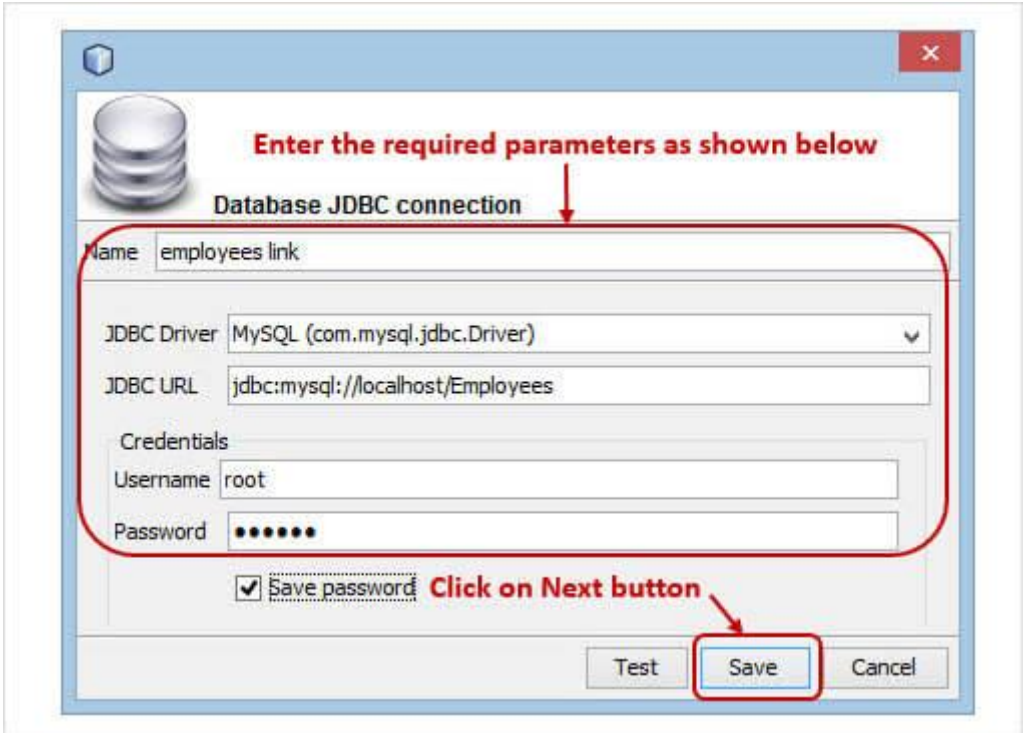
Enter rptEmployees.jrxml as the file name and extension Click on Next button



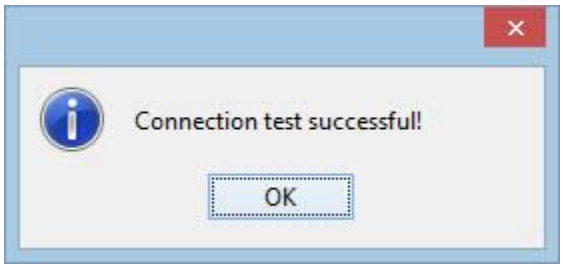
Click on New button to create a new data Source



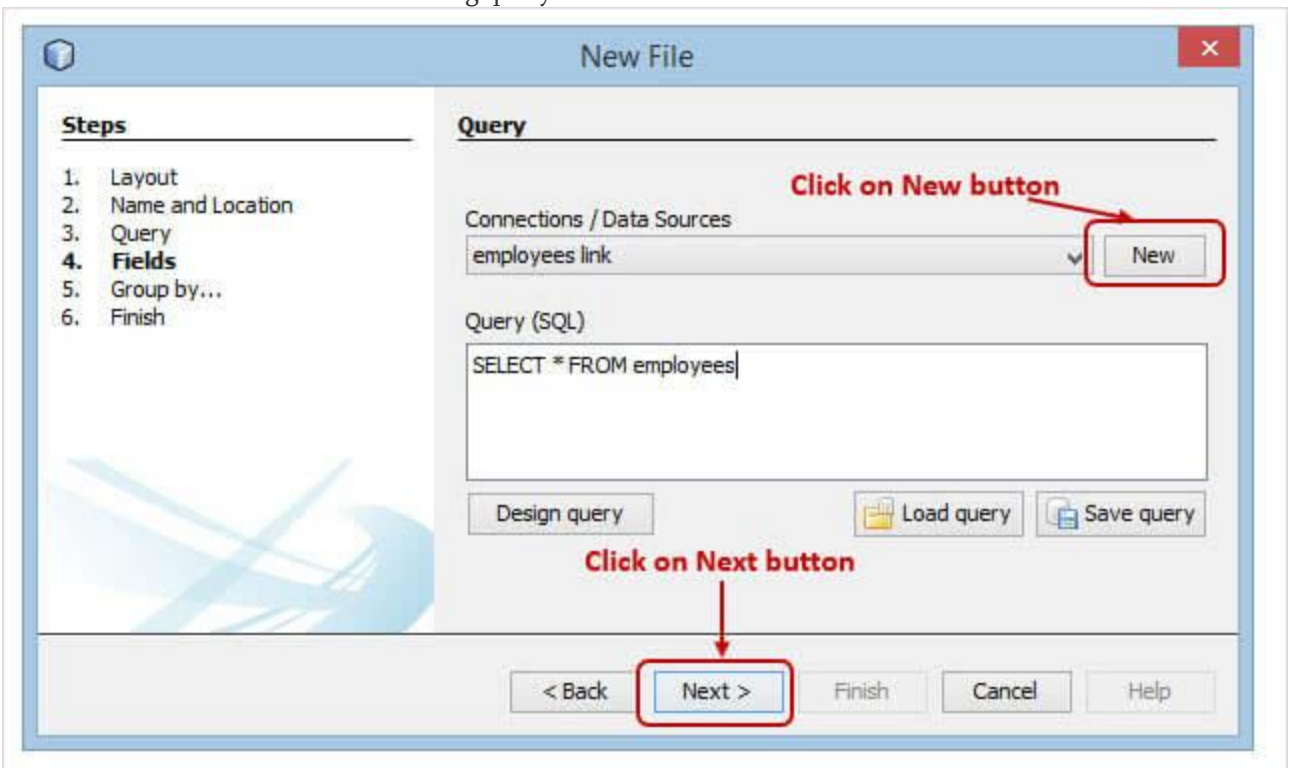
Click on Next Button



Click on Test button

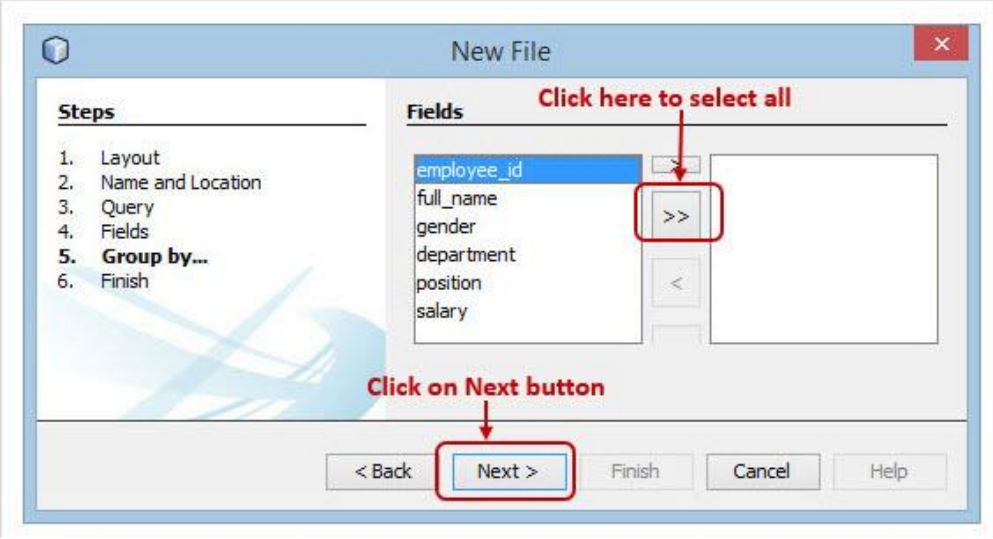


Click on save button Enter the following query

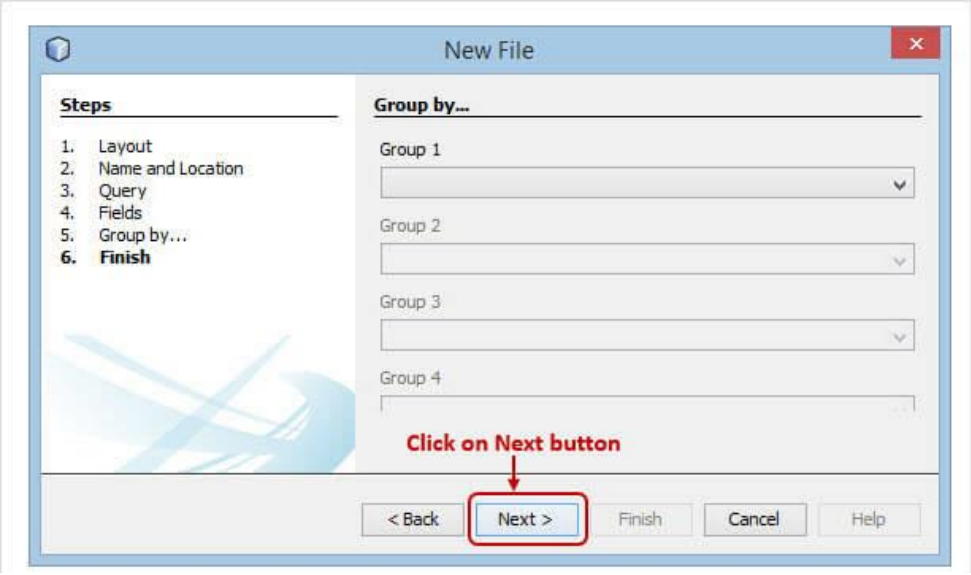



```
SELECT * FROM employees
```

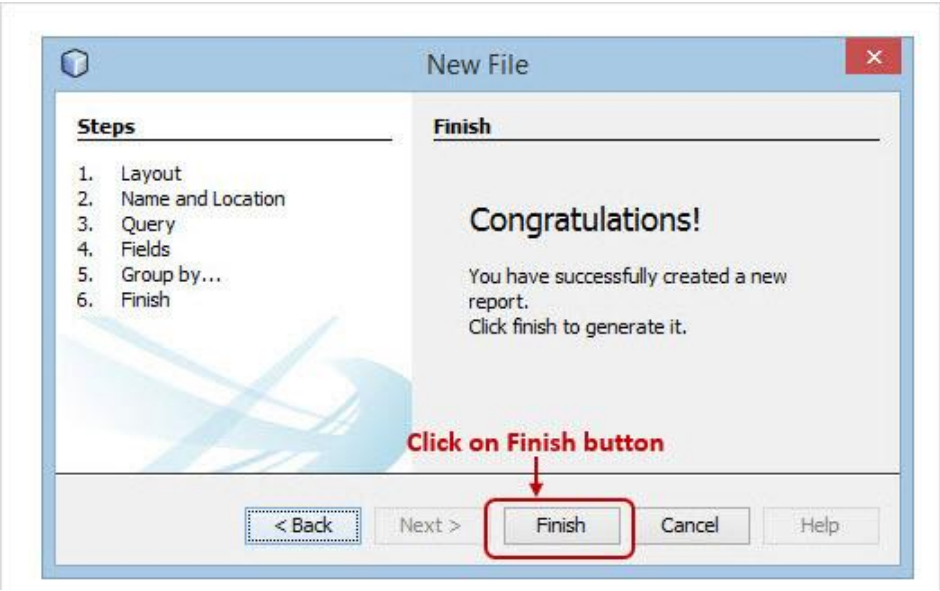
Make sure employees link is selected as shown in the image above Click on Next button



Click on Next button



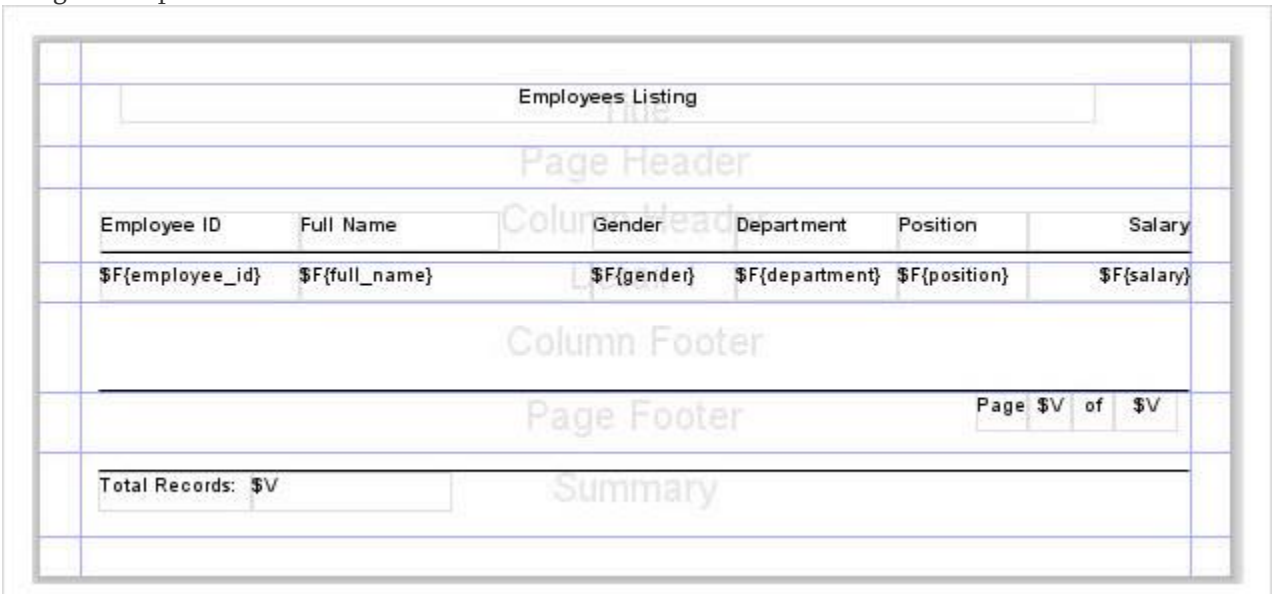
Click on Next button



Click on Finish button

3. Designing a JasperReport in NetBeans IDE

Double click on rptEmployees.jrxml to open the report designer Press Ctrl + Shift + 8 to open the Report palette
Design the report as shown below



*Note: **Use the Report Inspector to add fields to the report***

3.1. Create a class JasperReports.java Add the following code

```
package employees;

import java.io.InputStream;
import java.sql.SQLException;
import java.util.HashMap;
import java.util.Map;
import net.sf.jasperreports.engine.JRException;
import net.sf.jasperreports.engine.JasperCompileManager;
import net.sf.jasperreports.engine.JasperFillManager;
import net.sf.jasperreports.engine.JasperPrint;
import net.sf.jasperreports.engine.JasperReport;
import net.sf.jasperreports.engine.design.JRDesignQuery;
import net.sf.jasperreports.engine.design.JasperDesign;
import net.sf.jasperreports.engine.xml.JRXmlLoader;
import net.sf.jasperreports.view.JasperViewer;

public class JasperReports {

    String m_where;
    String m_report_source = "/employees/";
    String m_sql_stmt;
    Map parametersMap = new HashMap();

    protected void showReport() {
        try {
            DBUtilities dbUtilities = new DBUtilities();
            InputStream is =
getClass().getResourceAsStream(m_report_source);

            JRDesignQuery jrDesignQuery = new JRDesignQuery();
            jrDesignQuery.setText(m_sql_stmt);
```

```
            JasperDesign jasperDesign = JRXmlLoader.load(is);
            jasperDesign.setQuery(jrDesignQuery);

            JasperReport jasperReport =
JasperCompileManager.compileReport(jasperDesign);
            JasperPrint jasperPrint =
JasperFillManager.fillReport(jasperReport, parametersMap,
dbUtilities.getConnection());
            JasperViewer.viewReport(jasperPrint, false);

        } catch (SQLException | JRException e) {
            System.out.println("Exception message " + e.getMessage());
        }
    }
}
```

"showReport()" **this method connects to the database dynamically to load data, specifies a report to be loaded, executes a JRDesignQuery query, compiles a JasperReport and displayes it**

3.2. Create a class DisplayReports.java. This class extends JasperReports.java class Add the following code

```
package employees;

public class DisplayReports extends JasperReports {

    public void showEmployees() {
        m_report_source = "rptEmployees.jrxml";
        m_sql_stmt = "SELECT * FROM employees ORDER BY employee_id";
        showReport();
    }
}
```

"showEmployees()" **this methods specifies the report to be loaded and the SELECT SQL statement to be executed by JRDesignQuery.**

3.3. Add the following code to btnPrintAllActionPerformed in FORMEmployees.Java

4. Testing the project

Run the project Click on Print All button You will get the following results