

# Heimaverkefni 8

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## V8a

```
import java.sql.*;

class V8a{
    public static void main( String[] args )
        throws Exception
    {
        Connection conn;
        try
        {
            // Reynum fyrst PostgreSQL
            Class.forName("org.postgresql.Driver");           // fyrir PostgreSQL
            java.util.Properties props = new java.util.Properties();
            props.setProperty("user",args[0]);
            props.setProperty("password",args[1]);
            conn = DriverManager.getConnection("jdbc:postgresql:COMPANY",props);
        }
        catch( Exception e )
        {
            // Höldum bara áfram og reynum SQLite
            try
            {
                Class.forName("org.sqlite.JDBC");               // fyrir SQLite
                conn = DriverManager.getConnection("jdbc:sqlite:company.db");
            }
            catch( Exception e2 )
            {
                // Höldum áfram og reynum ODBC
                conn = DriverManager.getConnection("jdbc:odbc:COMPANY");
            }
        }

        Statement statement = conn.createStatement();
        ResultSet r = statement.executeQuery("SELECT AVG(salary) FROM EMPLOYEE");

        while(r.next()){
            System.out.println("Meðallaun fyrirtækisins eru: " + r.getInt(1));
        }
        r.close();
        conn.close();
    }
}
```

## V8b

```
import java.sql.*;

class V8b{
    public static void main( String[] args )
        throws Exception
    {
        Connection conn;
        try
        {
            // Reynum fyrst PostgreSQL
            Class.forName("org.postgresql.Driver");           // fyrir PostgreSQL
            java.util.Properties props = new java.util.Properties();
            props.setProperty("user",args[0]);
            props.setProperty("password",args[1]);
            conn = DriverManager.getConnection("jdbc:postgresql:COMPANY",props);
        }
        catch( Exception e )
        {
            // Höldum bara áfram og reynum SQLite
            try
            {
                Class.forName("org.sqlite.JDBC");             // fyrir SQLite
                conn = DriverManager.getConnection("jdbc:sqlite:company.db");
            }
            catch( Exception e2 )
            {
                // Höldum áfram og reynum ODBC
                conn = DriverManager.getConnection("jdbc:odbc:COMPANY");
            }
        }
        String stmt1 = "UPDATE EMPLOYEE SET Salary=(Salary + 200) WHERE ssn=?";
        PreparedStatement p = conn.prepareStatement(stmt1);
        Statement statement = conn.createStatement();
        ResultSet r = statement.executeQuery("SELECT ssn FROM EMPLOYEE");
        while(r.next()){
            String ssn = r.getString(1);
            p.clearParameters();
            p.setString(1, ssn);
            p.execute();
        }
        r.close();
        conn.close();
    }
}
```

## V8c

```
import java.sql.*;

public class V8c {

    public static void main( String[] args )
        throws Exception
    {
        Connection conn;
        try
        {
            // Reynum fyrst PostgreSQL
            Class.forName("org.postgresql.Driver");           // fyrir PostgreSQL
            java.util.Properties props = new java.util.Properties();
            props.setProperty("user",args[0]);
            props.setProperty("password",args[1]);
            conn = DriverManager.getConnection("jdbc:postgresql:COMPANY",props);
        }
        catch( Exception e )
        {
            // Höldum bara áfram og reynum SQLite
            try
            {
                Class.forName("org.sqlite.JDBC");              // fyrir SQLite
                conn = DriverManager.getConnection("jdbc:sqlite:company.db");
            }
            catch( Exception e2 )
            {
                // Höldum áfram og reynum ODBC
                conn = DriverManager.getConnection("jdbc:odbc:COMPANY");
            }
        }

        Statement statement = conn.createStatement();
        statement.executeUpdate("UPDATE EMPLOYEE SET Salary=(Salary * 1.03)");
        conn.close();
    }
}
```

## Keyrsla á JDBC1

```
● ~/Desktop/forritun> java -cp sqlite-jdbc-3.39.3.0.jar JDBC1.java
Enter a Social Security Number: 888665555
Borg 56856.0
● ~/Desktop/forritun> java -cp sqlite-jdbc-3.39.3.0.jar V8a.java
Meðallaun fyrirtækisins eru: 36384
○ ~/Desktop/forritun> █
```