

DBMS LAB 10

Name: Sachin Hansda

Roll No.: 111601019

Lab Report

1. Create a new database university

```
dbms@dbms-VirtualBox:~/SimpleDB_2.10$ javac simpledb/server/Startup.java
dbms@dbms-VirtualBox:~/SimpleDB_2.10$ java simpledb.server.Startup universitydb
new transaction: 1
creating new database
transaction 1 committed
database server ready
```

2. Create tables student and department

Java code:

```
import java.sql.*;
import simpledb.remote.SimpleDriver;

public class tables {
    public static void main(String[] args) {
        Connection conn = null;
        try {
            Driver d = new SimpleDriver();
            conn = d.connect("jdbc:simpledb://localhost", null);
            Statement stmt = conn.createStatement();

            String s = "create table student(ID varchar(5), name varchar(20), deptname varchar(20),
totcred int)";
            stmt.executeUpdate(s);
            System.out.println("Table student created.");

            s = "create table department(deptname varchar(20), building varchar(15), budget int)";
            stmt.executeUpdate(s);
            System.out.println("Table department created.");

        }
        catch(SQLException e) {
            e.printStackTrace();
        }
    }
}
```

```

    }
    finally {
        try {
            if (conn != null)
                conn.close();
        }
        catch (SQLException e) {
            e.printStackTrace();
        }
    }
}
}

```

```

dbms@dbms-VirtualBox:~/SimpleDB_2.10$ javac studentClient/simpledb/tables.java
dbms@dbms-VirtualBox:~/SimpleDB_2.10$ java -cp .:studentClient/simpledb tables
Table student created.
Table department created.

```

3. Insert records into student and department using the records from largeRelationsInsertFile.sql
Java code:

```

import java.sql.*;
import simpledb.remote.SimpleDriver;

public class data {
    public static void main(String[] args) {
        Connection conn = null;
        try {
            Driver d = new SimpleDriver();
            conn = d.connect("jdbc:simpledb://localhost", null);
            Statement stmt = conn.createStatement();

            String s = "insert into student(ID, name, deptname, totcred) values ";
            String[] studvals = {"('24746', 'Schrefl', 'History', 4)",
                                "('79352', 'Rumat', 'Finance', 100)",
                                "('76672', 'Miliko', 'Statistics', 116)",
                                "('14182', 'Moszkowski', 'Civil', 73)",
                                "('44985', 'Prieto', 'Biology', 91)"};

            for (int i=0; i<studvals.length; i++)
                stmt.executeUpdate(s + studvals[i]);
            System.out.println("student records inserted.");

            s = "insert into department(deptname, building, budget) values ";
            String[] deptvals = {"('Civil', 'Chandler', 255041)",

```

```

        "('Biology', 'Candlestick', 647610)",
        "('History', 'Taylor', 699140)",
        "('Finance', 'Candlestick', 866831)",
        "('Statistics', 'Taylor', 395051)");

    for (int i=0; i<deptvals.length; i++)
        stmt.executeUpdate(s + deptvals[i]);
    System.out.println("department records inserted.");

}
catch(SQLException e) {
    e.printStackTrace();
}
finally {
    try {
        if (conn != null)
            conn.close();
    }
    catch (SQLException e) {
        e.printStackTrace();
    }
}
}
}

```

```

dbms@dbms-VirtualBox:~/SimpleDB_2.10$ javac studentClient/simpliedb/data.java
dbms@dbms-VirtualBox:~/SimpleDB_2.10$ java -cp .:studentClient/simpliedb data
student records inserted.
department records inserted.

```

4. Implement user and password authentication mechanism.