

Q. Write a program to insert, update and delete records from the given table.

Movie1Atharv.java

```
package org.me; public class Movie1Atharv{ int mid;String title;String actor; public Movie1Atharv(int mid,String title,String actor){ super(); this.mid=mid; this.title=title; this.actor=actor; } public Movie1Atharv(){super();} public int getMid(){return mid;} public void setMid(int mid){this.mid=mid;} public String getTitle(){return title;} public void setTitle(String title){this.title=title;} public String getActor(){return actor;} public void setActor(String actor){this.actor=actor;} }
```

MovieDAOAtharv.java

```
package org.me; import org.springframework.jdbc.core.JdbcTemplate; public class MovieDAOAtharv{ JdbcTemplate jdbcTemplate; public void setJdbcTemplate(JdbcTemplate jdbcTemplate){ this.jdbcTemplate=jdbcTemplate; } public int insMovie(Movie1Atharv m1){ String insSql="insert into mymovies1 values(\""+m1.getMid()+"','"+m1.getTitle()+"','"+m1.getActor()+""); return jdbcTemplate.update(insSql); } public int updateMovie(Movie1Atharv m1){ String query="update mymovies1 set title=\""+m1.getTitle()+"\",actor=\""+m1.getActor()+"\" where mid=\""+m1.getMid()+"\""; return jdbcTemplate.update(query); }
```

```
public int deleteMovie(Movie1Atharv m1){  
String query="delete from mymovies1 where mid='"+m1.getMid()+"'; return  
jdbcTemplate.update(query);  
}  
}
```

appctx.xml

```
<?xml version="1.0" encoding="UTF-8"?>  
<beans xmlns="http://www.springframework.org/schema/beans"  
      xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
      xsi:schemaLocation="http://www.springframework.org/schema/beans  
                          http://www.springframework.org/schema/beans/spring-beans.xsd">  
  
<bean id="ds" class="org.springframework.jdbc.datasource.DriverManagerDataSource">  
    <property name="driverClassName" value="org.postgresql.Driver"/>  
    <property name="url" value="jdbc:postgresql://localhost:5432/postgres"/>  
    <property name="username" value="postgres"/>  
    <property name="password" value="admin"/>  
  </bean>  
  
<bean id="jdbcTemplate" class="org.springframework.jdbc.core.JdbcTemplate">  
    <property name="dataSource" ref="ds"/>  
  </bean>  
  
<bean id="mymovie" class="org.me.MovieDAOAtharv">  
    <property name="jdbcTemplate" ref="jdbcTemplate"/> </bean> </beans>
```

```
MovieTestAtharv.java package org.me;  
  
import org.springframework.context.ApplicationContext;  
  
import org.springframework.context.support.ClassPathXmlApplicationContext;  
  
public class MovieTestAtharv{ private static ApplicationContext appCon; public  
static void main(String[] args){  
    appCon=new ClassPathXmlApplicationContext("appctx.xml");  
    MovieDAOAtharv m1=(MovieDAOAtharv)appCon.getBean("mymovie");  
    // insert  
    Movie1Atharv t1=new Movie1Atharv(10,"Mirzapur","P");  
    System.out.println(m1.insMovie(t1));  
    // update
```

```
//System.out.println(m1.updateMovie(new Movie1Atharv(10,"War","Hrithik")));
// delete
//Movie1Atharv t2=new Movie1Atharv();
//t2.setMid(10);
//System.out.println(m1.deleteMovie(t2));
}
}
```

Output

```
1
```

Write a program to demonstrate PreparedStatement in Spring JdbcTemplate.

Movie1Atharv.java

```
package org.me; public class Movie1Atharv{ int mid;String title;String actor; public Movie1Atharv(int mid,String title,String actor){ super(); this.mid=mid; this.title=title; this.actor=actor; } public Movie1Atharv(){super();} public int getMid(){return mid;} public void setMid(int mid){this.mid=mid;} public String getTitle(){return title;} public void setTitle(String title){this.title=title;} public String getActor(){return actor;} public void setActor(String actor){this.actor=actor;} }
```

MovieDAO1Atharv.java

```
package org.me; import java.sql.PreparedStatement; import java.sql.SQLException; import org.springframework.dao.DataAccessException; import org.springframework.jdbc.core.JdbcTemplate; import org.springframework.jdbc.core.PreparedStatementCallback; public class MovieDAO1Atharv{ JdbcTemplate jdbcTemplate; public void setJdbcTemplate(JdbcTemplate jdbcTemplate){ this.jdbcTemplate=jdbcTemplate; } public Boolean saveMovieByPreparedStatement(final Movie1Atharv e){ String query="insert into movies values(?, ?, ?)"; return jdbcTemplate.execute(query,new PreparedStatementCallback<Boolean>(){ @Override public Boolean doInPreparedStatement(PreparedStatement ps) throws }
```

```
SQLException,DataAccessException{  
    ps.setInt(1,e.getMid());  
    ps.setString(2,e.getTitle());  
    ps.setString(3,e.getActor()); return  
    ps.execute();  
}  
});  
}  
}  
}
```

appctx1.xml

```
<?xml version="1.0" encoding="UTF-8"?>  
<beans xmlns="http://www.springframework.org/schema/beans"  
       xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
       xsi:schemaLocation="http://www.springframework.org/schema/beans  
                           http://www.springframework.org/schema/beans/spring-beans.xsd">  
    <bean id="ds" class="org.springframework.jdbc.datasource.DriverManagerDataSource">  
        <property name="driverClassName" value="org.postgresql.Driver"/>  
        <property name="url" value="jdbc:postgresql://localhost:5432/postgres"/>  
        <property name="username" value="postgres"/>  
        <property name="password" value="pass"/>  
    </bean>  
    <bean id="jdbcTemplate" class="org.springframework.jdbc.core.JdbcTemplate">  
        <property name="dataSource" ref="ds"/>  
    </bean>  
    <bean id="mymovie" class="org.me.MovieDAO1Atharv">  
        <property name="jdbcTemplate" ref="jdbcTemplate"/>  
    </bean>  
</beans>
```

MovieTest1Atharv.java

```
package org.me;  
  
import org.springframework.context.ApplicationContext;
```

```
import org.springframework.context.support.ClassPathXmlApplicationContext;
public class MovieTest1Atharv{ private static ApplicationContext appCon;
public static void main(String[] args){
appCon=new ClassPathXmlApplicationContext("appctx1.xml");
MovieDAO1Atharv m1=(MovieDAO1Atharv)appCon.getBean("mymovie");
m1.saveMovieByPreparedStatement(new Movie1Atharv(5,"Bhaijaan","Atharv"));
}
}
```

Output

Data Output				
	mid [PK] integer	title character varying (50)	actor character varying (50)	
1	10	war	hritik	
2	11	Mirzapur	P	
3	4	Inception	Cobb	

Write a program in Spring JDBC to demonstrate ResultSetExtractor Interface.

Movie2Atharv.java package org.me; public class

```
Movie2Atharv{ int mid;String title;String actor; public  
int getMid(){return mid;} public void setMid(int  
mid){this.mid=mid;} public String getTitle(){return  
title;} public void setTitle(String title){this.title=title;}  
public String getActor(){return actor;} public void  
setActor(String actor){this.actor=actor;} public String  
toString(){return mid+" "+title+" "+actor;}  
}
```

MovieDAO2Atharv.java

```
package org.me; import  
java.sql.ResultSet; import  
java.sql.SQLException; import  
java.util.ArrayList; import  
java.util.List;  
import org.springframework.dao.DataAccessException;  
import org.springframework.jdbc.core.JdbcTemplate;  
import org.springframework.jdbc.core.ResultSetExtractor;  
public class MovieDAO2Atharv{ JdbcTemplate  
jdbcTemplate;  
public void setJdbcTemplate(JdbcTemplate jdbcTemplate){this.jdbcTemplate=jdbcTemplate;}  
public List<Movie2Atharv> getAllMovie(){  
return jdbcTemplate.query("select * from mymovies1",new  
ResultSetExtractor<List<Movie2Atharv>>(){  
@Override  
public List<Movie2Atharv> extractData(ResultSet rs) throws SQLException,DataAccessException{  
List<Movie2Atharv> list=new ArrayList<Movie2Atharv>(); while(rs.next()){  
Movie2Atharv e=new Movie2Atharv();  
e.setMid(rs.getInt(1));  
e.setTitle(rs.getString(2));  
e.setActor(rs.getString(3)); list.add(e);  
}}}
```

```
return list;
}
});
}
}
```

appctx2.xml

```
<?xml version="1.0" encoding="UTF-8"?>

<beans xmlns="http://www.springframework.org/schema/beans"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.springframework.org/schema/beans
    http://www.springframework.org/schema/beans/spring-beans.xsd">

    <bean id="ds" class="org.springframework.jdbc.datasource.DriverManagerDataSource">
        <property name="driverClassName" value="org.postgresql.Driver"/>
        <property name="url" value="jdbc:postgresql://localhost:5432/postgres"/>
        <property name="username" value="postgres"/>
        <property name="password" value="password"/>
    </bean>

    <bean id="jdbcTemplate" class="org.springframework.jdbc.core.JdbcTemplate">
        <property name="dataSource" ref="ds"/>
    </bean>

    <bean id="mymovie" class="org.me.MovieDAO2Atharv">
        <property name="jdbcTemplate" ref="jdbcTemplate"/>
    </bean>
</beans>
```

MovieTest2Atharv.java

```
package org.me; import
java.util.List;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;
public class MovieTest2Atharv{ private static ApplicationContext appCon;
public static void main(String[] args){
    appCon=new ClassPathXmlApplicationContext("appctx2.xml");
```

```
MovieDAO2Atharv m1=(MovieDAO2Atharv)appCon.getBean("mymovie");
List<Movie2Atharv> list=m1.getAllMovie(); for(Movie2Atharv e:list)
System.out.println(e);
}
}
```

Output

```
10 war hritik
11 Mirzapur P
4 Inception Cobb
```

	mid [PK] integer	title character varying (50)	actor character varying (50)
1	10	war	hritik
2	11	Mirzapur	P
3	4	Inception	Cobb

Write a program to demonstrate RowMapper interface to fetch the records from the database.

Movie3Atharv.java

```
package org.me; public class Movie3Atharv{ int mid;String title;String actor; public Movie3Atharv(int mid,String title,String actor){ super(); this.mid=mid; this.title=title; this.actor=actor; } public Movie3Atharv(){super();} public int getMid(){return mid;} public void setMid(int mid){this.mid=mid;} public String getTitle(){return title;} public void setTitle(String title){this.title=title;} public String getActor(){return actor;} public void setActor(String actor){this.actor=actor;} public String toString(){return mid+" "+title+" "+actor;} }
```

MovieDAO3Atharv.java

```
package org.me; import java.sql.ResultSet; import java.sql.SQLException; import java.util.List; import org.springframework.jdbc.core.JdbcTemplate; import org.springframework.jdbc.core.RowMapper; public class MovieDAO3Atharv{ JdbcTemplate jdbcTemplate; public void setJdbcTemplate(JdbcTemplate jdbcTemplate){this.jdbcTemplate=jdbcTemplate;} public List<Movie3Atharv> getAllEmployeesRowMapper(){ return jdbcTemplate.query("select * from mymovies1",new RowMapper<Movie3Atharv>(){ @Override
```

```
public Movie3Atharv mapRow(ResultSet rs,int rownumber) throws SQLException{  
    Movie3Atharv e=new Movie3Atharv();  
    e.setMid(rs.getInt(1));  
    e.setTitle(rs.getString(2));  
    e.setActor(rs.getString(3)); return  
    e;  
}  
});  
}  
}
```

appctx3.xml

```
<?xml version="1.0" encoding="UTF-8"?>  
<beans xmlns="http://www.springframework.org/schema/beans"  
       xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
       xsi:schemaLocation="http://www.springframework.org/schema/beans  
                           http://www.springframework.org/schema/beans/spring-beans.xsd">  
    <bean id="ds" class="org.springframework.jdbc.datasource.DriverManagerDataSource">  
        <property name="driverClassName" value="org.postgresql.Driver"/>  
        <property name="url" value="jdbc:postgresql://localhost:5432/postgres"/>  
        <property name="username" value="postgres"/>  
        <property name="password" value="password"/>  
    </bean>  
    <bean id="jdbcTemplate" class="org.springframework.jdbc.core.JdbcTemplate">  
        <property name="dataSource" ref="ds"/>  
    </bean>  
    <bean id="mymovie" class="org.me.MovieDAO3Atharv">  
        <property name="jdbcTemplate" ref="jdbcTemplate"/>  
    </bean>  
</beans>
```

MovieTest3Atharv.java

```
package org.me; import  
java.util.List;  
import org.springframework.context.ApplicationContext;  
import org.springframework.context.support.ClassPathXmlApplicationContext;  
public class MovieTest3Atharv{ private static ApplicationContext appCon;  
public static void main(String[] args){  
appCon=new ClassPathXmlApplicationContext("appctx3.xml");  
MovieDAO3Atharv m1=(MovieDAO3Atharv)appCon.getBean("mymovie");  
List<Movie3Atharv> list=m1.getAllEmployeesRowMapper(); for(Movie3Atharv  
e:list)  
System.out.println(e);  
}  
}
```

Output

```
10 war hritik  
11 Mirzapur P  
4 Inception Cobb
```

	mid [PK] integer	title character varying (50)	actor character varying (50)
1	10	war	hritik
2	11	Mirzapur	P
3	4	Inception	Cobb