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Lab Exam WEB JAVA

Q1

```
327
328     create database adv_java_lab_exam;
329
330 •   use adv_java_lab_exam;
331
332 • ⊖ create table mytable(
333         id int primary key auto_increment,
334         desc_ varchar(200),
335         postedDate date,
336         answer varchar(400),
337         status_ boolean
338     );
339
340 •   show tables;
341
342 •   desc mytable;
343
344 •   insert into mytable(desc_, postedDate, answer, status_) values("Electrical Engineer", "2023-02-20", "yes", false);
345
346 •   truncate mytable;
347
348 •   select * from mytable;
349
350
```

```
348 •     select * from mytable;
349
350
351
```

	id	desc_	postedDate	answer	status_
▶	1	Electrical Engineer	2023-02-20	yes	0
*	NULL	NULL	NULL	NULL	NULL

```xml
 1⊖<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:x
 2    xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 ht
 3    <modelVersion>4.0.0</modelVersion>
 4    <groupId>Lab_Exam</groupId>
 5    <artifactId>Lab_Exam</artifactId>
 6    <packaging>war</packaging>
 7    <version>0.0.1-SNAPSHOT</version>
 8    <name>Lab_Exam Maven Webapp</name>
 9    <url>http://maven.apache.org</url>
10⊖    <dependencies>
11
12⊖      <dependency>
13        <groupId>junit</groupId>
14        <artifactId>junit</artifactId>
15        <version>3.8.1</version>
16        <scope>test</scope>
17      </dependency>
18
19⊖      <dependency>
20            <groupId>mysql</groupId>
21            <artifactId>mysql-connector-java</artifactId>
22            <version>8.0.17</version>
23      </dependency>
24
25⊖      <dependency>
26            <groupId>org.hibernate</groupId>
27            <artifactId>hibernate-core</artifactId>
28            <version>4.3.6.Final</version>
29      </dependency>
30
31    </dependencies>
32⊖    <build>
33        <finalName>Lab_Exam</finalName>
34    </build>
35 </project>
36
```

```xml
 1 <?xml version="1.0" encoding="UTF-8"?>
 2 <!DOCTYPE hibernate-configuration PUBLIC
 3         "-//Hibernate/Hibernate Configuration DTD 3.0//EN"
 4         "http://www.hibernate.org/dtd/hibernate-configuration-3.0.dtd">
 5
 6⊖<hibernate-configuration>
 7⊖    <session-factory>
 8        <property name="hibernate.connection.driver_class">com.mysql.cj.jdbc.Driver</property>
 9        <property name="hibernate.connection.url">jdbc:mysql://localhost:3306/adv_java_lab_exam?useSSL=false</property>
10        <property name="hibernate.connection.username">root</property>
11        <property name="hibernate.connection.password">7039439101</property>
12        <property name="hibernate.dialect">org.hibernate.dialect.MySQLDialect</property>
13        <property name="hibernate.hbm2ddl.auto">update</property>
14        <property name="hibernate.show_sql">true</property>
15        <mapping class="com.labexam.pojo.Mytable"/>
16    </session-factory>
17 </hibernate-configuration>
```

POJO Class

```java
1  package com.labexam.pojo;
2
3  import javax.persistence.Column;
4  import javax.persistence.Entity;
5  import javax.persistence.GeneratedValue;
6  import javax.persistence.GenerationType;
7  import javax.persistence.Id;
8  import javax.persistence.Table;
9
10 @Entity
11 @Table(name= "mytable")
12
13 public class Mytable {
14
15     @Id
16     @GeneratedValue(strategy = GenerationType.IDENTITY)
17     @Column(name = "id")
18     private int id;
19
20     @Column(name = "desc_")
21     private String desc_;
22
23     @Column(name = "postedDate")
24     private String postedDate;
25
26     @Column(name = "answer")
27     private String answer;
28
29     @Column(name = "status_")
30     private boolean status_;
31
32     public Mytable() {
33
34     }
35
36     public int getId() {
37         return id;
38     }
39
40     public void setId(int id) {
41         this.id = id;
42     }
```

```java
40      public void setId(int id) {
41          this.id = id;
42      }
43
44      public String getDesc_() {
45          return desc_;
46      }
47
48      public void setDesc_(String desc_) {
49          this.desc_ = desc_;
50      }
51
52      public String getPostedDate() {
53          return postedDate;
54      }
55
56      public void setPostedDate(String postedDate) {
57          this.postedDate = postedDate;
58      }
59
60      public String getAnswer() {
61          return answer;
62      }
63
64      public void setAnswer(String answer) {
65          this.answer = answer;
66      }
67
68      public boolean isStatus_() {
69          return status_;
70      }
71
72      public void setStatus_(boolean status_) {
73          this.status_ = status_;
74      }
75
76      @Override
77      public String toString() {
78          return id + " : " + desc_ + " : " + postedDate + " : " + answer + " : " + status_;
79      }
80
81  }
```
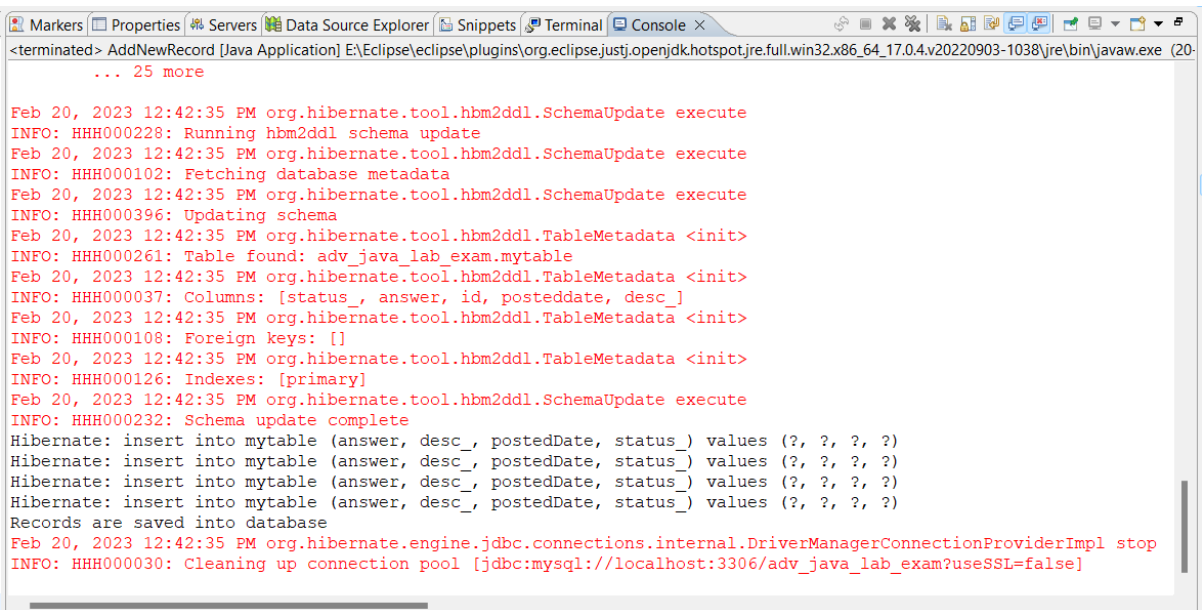
Save New Records

```java
package com.labexam.main;

import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;
import org.hibernate.cfg.Configuration;

import com.labexam.pojo.Mytable;

public class AddNewRecord {

    public static void main(String[] args) {

        Configuration config = new Configuration();
        config.configure("hibernate.cfg.xml");

        SessionFactory sf = config.buildSessionFactory();

        Session s = sf.openSession();

        Transaction tr = s.beginTransaction();

        Mytable t1 = new Mytable();
        t1.setDesc_("Mechanical Engineer");
        t1.setPostedDate("2023-03-21");
        t1.setAnswer("yes");
        t1.setStatus_(true);

        Mytable t2 = new Mytable();
        t2.setDesc_("Software Engineer");
        t2.setPostedDate("2023-04-22");
        t2.setAnswer("no");
        t2.setStatus_(false);

        Mytable t3 = new Mytable();
        t3.setDesc_("Database Engineer");
        t3.setPostedDate("2023-05-23");
        t3.setAnswer("yes");
        t3.setStatus_(false);

        Mytable t4 = new Mytable();
```

```java
39          t3.setStatus_(false);
40
41          Mytable t4 = new Mytable();
42          t4.setDesc_("Devops Engineer");
43          t4.setPostedDate("2023-06-24");
44          t4.setAnswer("no");
45          t4.setStatus_(true);
46
47          s.save(t1);
48          s.save(t2);
49          s.save(t3);
50          s.save(t4);
51
52          tr.commit();
53
54          System.out.println("Records are saved into database");
55
56          sf.close();
57
58      }
59
60 }
61
```

```
          ... 25 more

Feb 20, 2023 12:42:35 PM org.hibernate.tool.hbm2ddl.SchemaUpdate execute
INFO: HHH000228: Running hbm2ddl schema update
Feb 20, 2023 12:42:35 PM org.hibernate.tool.hbm2ddl.SchemaUpdate execute
INFO: HHH000102: Fetching database metadata
Feb 20, 2023 12:42:35 PM org.hibernate.tool.hbm2ddl.SchemaUpdate execute
INFO: HHH000396: Updating schema
Feb 20, 2023 12:42:35 PM org.hibernate.tool.hbm2ddl.TableMetadata <init>
INFO: HHH000261: Table found: adv_java_lab_exam.mytable
Feb 20, 2023 12:42:35 PM org.hibernate.tool.hbm2ddl.TableMetadata <init>
INFO: HHH000037: Columns: [status_, answer, id, posteddate, desc_]
Feb 20, 2023 12:42:35 PM org.hibernate.tool.hbm2ddl.TableMetadata <init>
INFO: HHH000108: Foreign keys: []
Feb 20, 2023 12:42:35 PM org.hibernate.tool.hbm2ddl.TableMetadata <init>
INFO: HHH000126: Indexes: [primary]
Feb 20, 2023 12:42:35 PM org.hibernate.tool.hbm2ddl.SchemaUpdate execute
INFO: HHH000232: Schema update complete
Hibernate: insert into mytable (answer, desc_, postedDate, status_) values (?, ?, ?, ?)
Hibernate: insert into mytable (answer, desc_, postedDate, status_) values (?, ?, ?, ?)
Hibernate: insert into mytable (answer, desc_, postedDate, status_) values (?, ?, ?, ?)
Hibernate: insert into mytable (answer, desc_, postedDate, status_) values (?, ?, ?, ?)
Records are saved into database
Feb 20, 2023 12:42:35 PM org.hibernate.engine.jdbc.connections.internal.DriverManagerConnectionProviderImpl stop
INFO: HHH000030: Cleaning up connection pool [jdbc:mysql://localhost:3306/adv_java_lab_exam?useSSL=false]
```
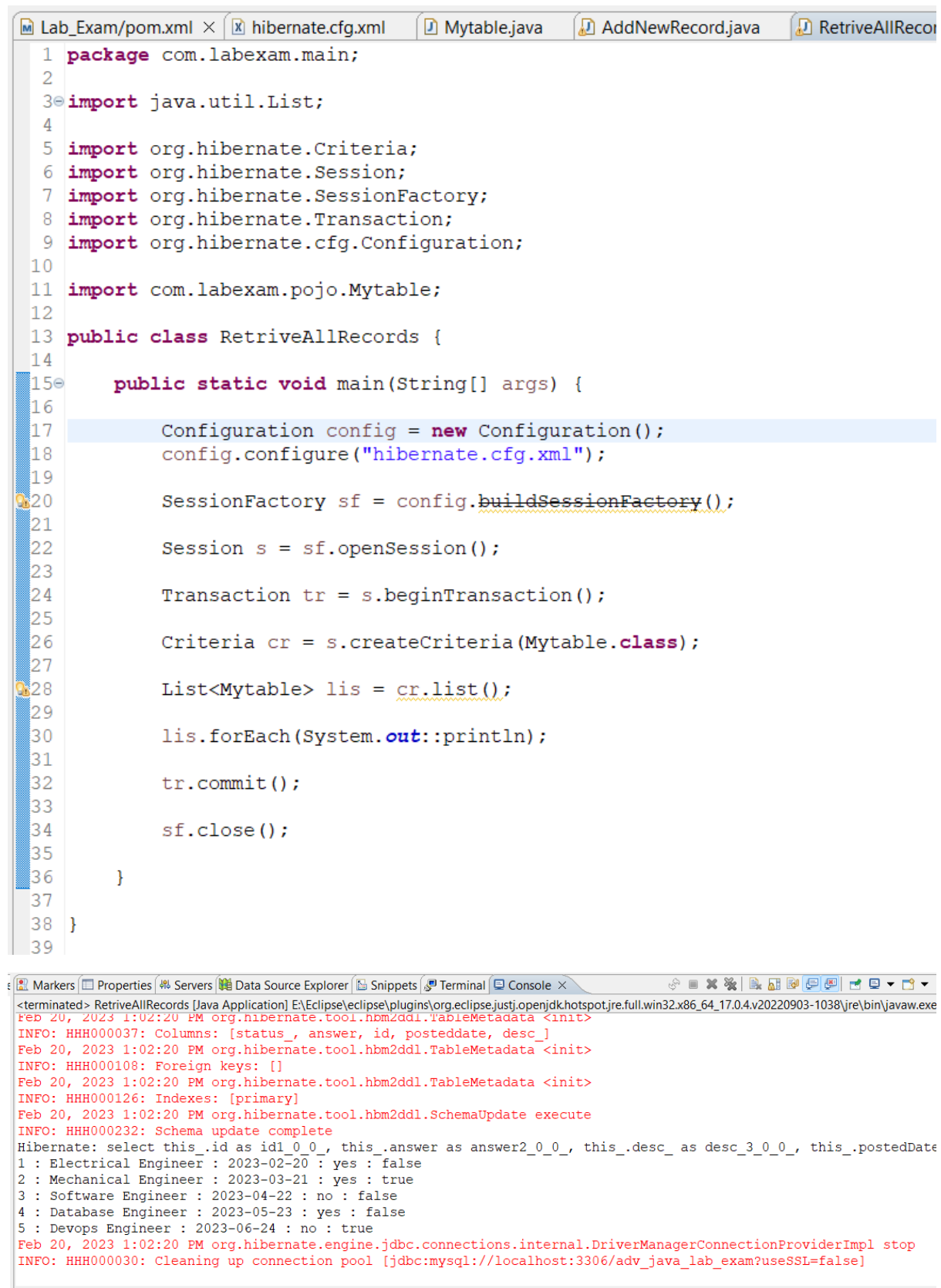
```
347
348 • select * from mytable;
```

Result Grid | Filter Rows: | Edit: | Export/Impo

	id	desc_	postedDate	answer	status_
▶	1	Electrical Engineer	2023-02-20	yes	0
	2	Mechanical Engineer	2023-03-21	yes	1
	3	Software Engineer	2023-04-22	no	0
	4	Database Engineer	2023-05-23	yes	0
	5	Devops Engineer	2023-06-24	no	1
*	NULL	NULL	NULL	NULL	NULL

mytable 11

Retrieve All Records

```java
package com.labexam.main;

import java.util.List;

import org.hibernate.Criteria;
import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;
import org.hibernate.cfg.Configuration;

import com.labexam.pojo.Mytable;

public class RetriveAllRecords {

    public static void main(String[] args) {

        Configuration config = new Configuration();
        config.configure("hibernate.cfg.xml");

        SessionFactory sf = config.buildSessionFactory();

        Session s = sf.openSession();

        Transaction tr = s.beginTransaction();

        Criteria cr = s.createCriteria(Mytable.class);

        List<Mytable> lis = cr.list();

        lis.forEach(System.out::println);

        tr.commit();

        sf.close();

    }
}
```

```
Markers  Properties  Servers  Data Source Explorer  Snippets  Terminal  Console X
<terminated> RetriveAllRecords [Java Application] E:\Eclipse\eclipse\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.4.v20220903-1038\jre\bin\javaw.exe
Feb 20, 2023 1:02:20 PM org.hibernate.tool.hbm2ddl.TableMetadata <init>
INFO: HHH000037: Columns: [status_, answer, id, posteddate, desc_]
Feb 20, 2023 1:02:20 PM org.hibernate.tool.hbm2ddl.TableMetadata <init>
INFO: HHH000108: Foreign keys: []
Feb 20, 2023 1:02:20 PM org.hibernate.tool.hbm2ddl.TableMetadata <init>
INFO: HHH000126: Indexes: [primary]
Feb 20, 2023 1:02:20 PM org.hibernate.tool.hbm2ddl.SchemaUpdate execute
INFO: HHH000232: Schema update complete
Hibernate: select this_.id as id1_0_0_, this_.answer as answer2_0_0_, this_.desc_ as desc_3_0_0_, this_.postedDate
1 : Electrical Engineer : 2023-02-20 : yes : false
2 : Mechanical Engineer : 2023-03-21 : yes : true
3 : Software Engineer : 2023-04-22 : no : false
4 : Database Engineer : 2023-05-23 : yes : false
5 : Devops Engineer : 2023-06-24 : no : true
Feb 20, 2023 1:02:20 PM org.hibernate.engine.jdbc.connections.internal.DriverManagerConnectionProviderImpl stop
INFO: HHH000030: Cleaning up connection pool [jdbc:mysql://localhost:3306/adv_java_lab_exam?useSSL=false]
```