Lab Exam

<u>Q1</u>

```
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),
           postedDate date,
335
           answer varchar(400),
336
           status_ boolean
337
      );
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
       select * from mytable;
348 •
349
350
348 •
           select * from mytable;
349
350
351
                                                     Edit: 🚄 📆 🚟 Export/Import:
Result Grid Filter Rows:
    id
                                                       status_
           desc_
                               postedDate
                                             answer
           Electrical Engineer
                               2023-02-20
                                            yes
   NULL
                                                      NULL
```

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

```
      ■ Lab_Exam/pom.xml
      ☑ hibernate.cfg.xml
      X
      ☑ Mytable.java
      ☑ AddNewRecord.java

 1 <?xml version="1.0" encoding="UTF-8"?>
 2 <!DOCTYPE hibernate-configuration PUBLIC
        "-//Hibernate/Hibernate Configuration DTD 3.0//EN"
        "http://www.hibernate.org/dtd/hibernate-configuration-3.0.dtd">
 60 < hibernate-configuration>
     <session-factorv>
        property name="hibernate.connection.username">root
        property name="hibernate.dialect">org.hibernate.dialect.MySQLDialect/property>
12
        property name="hibernate.show sql">true</property>
       <mapping class="com.labexam.pojo.Mytable"/>
     </session-factory>
17 </hibernate-configuration>
```

POJO Class

```
🛽 hibernate.cfg.xml 🔃 Mytable.java 🗴 🔎 AddNewRecord.ja
■ Lab Exam/pom.xml
 1 package com.labexam.pojo;
 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;
10 @Entity
11 @Table(name= "mytable")
12
13 public class Mytable {
14
15⊜
       @Id
16
      @GeneratedValue(strategy = GenerationType.IDENTITY)
17
      @Column(name = "id")
      private int id;
18
19
     @Column(name = "desc ")
20⊝
21
      private String desc ;
22
      @Column(name = "postedDate")
23⊝
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
```

```
    ▶ Lab_Exam/pom.xml
    ▶ hibernate.cfg.xml
    ▶ Mytable.java

    ▶ AddNewRecord.java

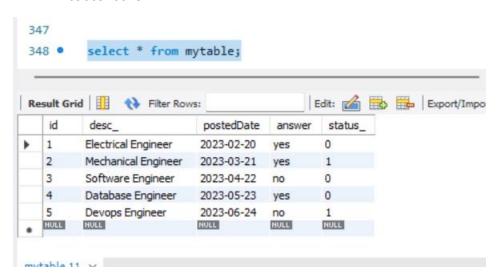
       public void setId(int id) {
 41
          this.id = id;
 42
 43
 44⊝
       public String getDesc_() {
 45
          return desc_;
 46
 47
 48⊖
     public void setDesc_(String desc_) {
 49
           this.desc_ = desc_;
 50
 51
      public String getPostedDate() {
 52⊜
 53
         return postedDate;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

Save New Records

```
Mytable.java
                                             AddNewRecord.java ×
1 package com.latabxExam/pom.xml
 3 import org.hibernate.Session;
 4 import org.hibernate.SessionFactory;
 5 import org.hibernate.Transaction;
 6 import org.hibernate.cfg.Configuration;
 8 import com.labexam.pojo.Mytable;
10 public class AddNewRecord {
11
12⊜
        public static void main(String[] args) {
13
14
            Configuration config = new Configuration();
15
            config.configure("hibernate.cfg.xml");
 16
17
           SessionFactory sf = config.buildSessionFactory();
18
19
           Session s = sf.openSession();
20
21
           Transaction tr = s.beginTransaction();
 22
 23
           Mytable t1 = new Mytable();
 24
           t1.setDesc_("Mechanical Engineer");
25
           t1.setPostedDate("2023-03-21");
26
           t1.setAnswer("yes");
27
           t1.setStatus_(true);
28
29
           Mytable t2 = new Mytable();
 30
           t2.setDesc_("Software Engineer");
 31
           t2.setPostedDate("2023-04-22");
32
           t2.setAnswer("no");
33
           t2.setStatus (false);
34
35
           Mytable t3 = new Mytable();
36
           t3.setDesc ("Database Engineer");
 37
           t3.setPostedDate("2023-05-23");
 38
           t3.setAnswer("yes");
 39
           t3.setStatus_(false);
 40
41
           Mvtable t4 = new Mvtable():
```

```
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
```

```
Markers ☐ Properties ♣ Servers ♠ Data Source Explorer ☐ Snippets ♣ Terminal ☐ Console ×
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]
```



Retrieve All Records

```
RetriveAllRecor
 ■ Lab_Exam/pom.xml × N hibernate.cfg.xml
                                               Mytable.java
                                                                  AddNewRecord.iava
   1 package com.labexam.main;
   3⊖ import java.util.List;
   4
   5 import org.hibernate.Criteria;
   6 import org.hibernate.Session;
   7 import org.hibernate.SessionFactory;
   8 import org.hibernate.Transaction;
  9 import org.hibernate.cfg.Configuration;
 10
  11 import com.labexam.pojo.Mytable;
 12
 13 public class RetriveAllRecords {
 14
 15⊝
            public static void main(String[] args) {
  16
  17
                 Configuration config = new Configuration();
  18
                  config.configure("hibernate.cfg.xml");
  19
  20
                 SessionFactory sf = config.buildSessionFactory();
  21
  22
                 Session s = sf.openSession();
  23
  24
                 Transaction tr = s.beginTransaction();
  25
  26
                 Criteria cr = s.createCriteria(Mytable.class);
  27
  28
                 List<Mytable> lis = cr.list();
  29
  30
                 lis.forEach(System.out::println);
  31
  32
                 tr.commit();
  33
  34
                 sf.close();
  35
  36
  37
 38 }
 39
Markers 🔲 Properties 🍇 Servers 🛍 Data Source Explorer 🕞 Snippets 🐶 Terminal 📮 Console 🗴
                                                                            <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.nipernate.tool.hpm2ddl.TableMetadata < 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]
```