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Complaint Redressal System

project source code

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complaint.sql

```sql
CREATE DATABASE /*!32312 IF NOT
EXISTS*/`web_student_tracker` /*!40100 DEFAULT CHARACTER
SET latin1 */;

USE `web_student_tracker`;

/*Table structure for table `complaint` */

DROP TABLE IF EXISTS `complaint`;

CREATE TABLE `complaint` (
  `cid` int(120) NOT NULL AUTO_INCREMENT,
  `uid` int(120) NOT NULL,
  `details` varchar(120) CHARACTER SET latin1 DEFAULT
'technical problem',
  `status` varchar(120) CHARACTER SET latin1 DEFAULT
'not seen',
  PRIMARY KEY (`cid`),
  KEY `utoc` (`uid`),
  CONSTRAINT `utoc` FOREIGN KEY (`uid`) REFERENCES
`user` (`id`) ON DELETE CASCADE
) ENGINE=InnoDB AUTO_INCREMENT=20 DEFAULT CHARSET=utf8;

/*Data for the table `complaint` */

insert  into `complaint`(`cid`,`uid`,`details`,`status`)
values
(5,7,'select * hellmmm','in process'),
(6,7,'wrong','paid'),
```

```sql
(7,7,'Universe problem','not seen'),
(8,7,'select * from user','not seen'),
(10,1,'fridge','under process'),
(11,1,'heavy','not seen'),
(12,1,'hello','not seen'),
(13,1,'doctor','not seen'),
(14,1,'django','not seen'),
(15,1,'javscript','not seen'),
(16,1,'ReactJS','seen'),
(18,7,'guadrians','not seen'),
(19,7,'AngularJS','not seen');

/*Table structure for table `engineer` */

DROP TABLE IF EXISTS `engineer`;

CREATE TABLE `engineer` (
  `eid` int(120) NOT NULL AUTO_INCREMENT,
  `cid` int(120) DEFAULT NULL,
  `ename` varchar(120) CHARACTER SET latin1 DEFAULT
NULL,
  PRIMARY KEY (`eid`),
  KEY `ctoe` (`cid`),
  CONSTRAINT `ctoe` FOREIGN KEY (`cid`) REFERENCES
`complaint` (`cid`) ON DELETE SET NULL
) ENGINE=InnoDB AUTO_INCREMENT=6 DEFAULT CHARSET=utf8;

/*Data for the table `engineer` */

insert  into `engineer`(`eid`,`cid`,`ename`) values
(1,16,'Elon Musk'),
```

```sql
(2,10,'Vimal Pillai'),
(4,11,'Baja Fish Tacos'),
(5,NULL,'Baja Fish Tacos');

/*Table structure for table `product` */

DROP TABLE IF EXISTS `product`;

CREATE TABLE `product` (
  `serialid` int(120) NOT NULL,
  `cid` int(120) DEFAULT NULL,
  `name` varchar(120) CHARACTER SET latin1 DEFAULT NULL,
  `type` varchar(120) CHARACTER SET latin1 DEFAULT NULL,
  `company` varchar(120) CHARACTER SET latin1 DEFAULT
NULL,
  `warantydate` varchar(120) CHARACTER SET latin1
DEFAULT NULL,
  PRIMARY KEY (`serialid`),
  KEY `ctop` (`cid`),
  CONSTRAINT `ctop` FOREIGN KEY (`cid`) REFERENCES
`complaint` (`cid`) ON DELETE SET NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8;

/*Data for the table `product` */

insert  into
`product`(`serialid`,`cid`,`name`,`type`,`company`,`wara
ntydate`) values
(1,NULL,'machyine','eclecgtric','gtodrej','21'),
(2,6,'Hello','electronics','Philips','21/09/1993'),
(3,NULL,'hello','dfsd','Philips','12/12/2019'),
```

```sql
(7,NULL,'Baja Fish
Tacos','electronics','Philips','12/12/2019'),
(10,5,'Hello','electronics','Philips','21/09/1993'),
(14,NULL,'KFCvimal','electronics','Philips','21/09/1993'
),
(22,15,'Hello','electronics','Godrej','23/6/1981'),
(23,10,'mcdonalds','electronics','Godrej','21/09/1993'),
(100,16,'Computer','electronics','Hewlett
Packard','20/12/2020'),
(233,NULL,'Hello
batman','electronics','dsfds','21/09/1993'),
(333,NULL,'i20','car','hyundai','23/6/1981'),
(1221,18,'Hello','electronics','Philips','21/09/1993'),
(6767,19,'Dell','electronics','Philips','21/09/1993');

/*Table structure for table `replacement` */

DROP TABLE IF EXISTS `replacement`;

CREATE TABLE `replacement` (
  `rid` int(120) NOT NULL AUTO_INCREMENT,
  `cid` int(120) DEFAULT NULL,
  `rname` varchar(120) CHARACTER SET latin1 DEFAULT
NULL,
  `price` int(120) DEFAULT NULL,
  PRIMARY KEY (`rid`),
  KEY `ctor` (`cid`),
  CONSTRAINT `ctor` FOREIGN KEY (`cid`) REFERENCES
`complaint` (`cid`) ON DELETE CASCADE
) ENGINE=InnoDB AUTO_INCREMENT=2 DEFAULT CHARSET=utf8;
```

```sql
/*Data for the table `replacement` */

insert into `replacement`(`rid`,`cid`,`rname`,`price`)
values
(1,16,'sdf',334);

/*Table structure for table `user` */

DROP TABLE IF EXISTS `user`;

CREATE TABLE `user` (
  `id` int(120) NOT NULL AUTO_INCREMENT,
  `email` varchar(120) DEFAULT NULL,
  `username` varchar(120) DEFAULT NULL,
  `password` varchar(120) DEFAULT NULL,
  PRIMARY KEY (`id`)
) ENGINE=InnoDB AUTO_INCREMENT=11 DEFAULT
CHARSET=latin1;
```

Login.jsp

```html
<html>
<head>
<title>Login</title>
</head>
<body>
<%@include file="navbar.jsp" %><br />
<div class="container">
<h2><p class="text-center text-success">Complaint
Management System</p></h2>
<hr />
```

```html
<div class="col-6 mx-auto my-auto">
<div class="card card-block">
 <div class="card-header text-center bg-info"><b>Login</b></div>
 <p class="card-body">
 <form  action="LoginServlet" class="form-horizontal" method="GET">
<div class="row">
<div class="col-1 mx-auto">
<label><b>Username</b></label>
</div>
<div class="col-5 mx-auto">
<input type="text" class="form-control" autofocus name="username" />
</div>
</div><br />
<div class="row">
<div class="col-1 mx-auto">
<label><b>Password</b></label>
</div>
<div class="col-5 mx-auto">
<input type="password" class="form-control" name="password" />
</div>
</div><br />
<div class="row">
<div class="col-2 mx-auto">
<input type="submit" class="btn btn-primary" value="Login" />
</div>
```

```html
</div>
</form>
<p class="text-center"><a href="/complaint/add-user-
form.jsp">Register</a></p>
 </p>
 </div>
 </div>
 </div>
</body>
</html>
```

Update-complaint-form.jsp

```html
<html>
<head>
<title>Update Complaint</title>
</head>
<body>
 <%@include file="navbar.jsp" %><br />
 <div class="container">
 <h3>Update Complaint</h3>
 <form action="ComplaintControllerServlet" class="form-
horizontal" method="GET">
 <input type="hidden" name = "command" value="UPDATE" />
 <input type="hidden" name = "theComplaintId"
value="${THE_COMPLAINT.cId }" />
 <div class="row">
 <div class="col-2">
 <label><b>Details</b></label>
 </div>
 <div class="col-5">
```

```jsp
<input type="text" class="form-control" name="details"
value="${THE_COMPLAINT.details}"/></td>
</div>
</div><br />
<c:set var="VIMAL" value="vimal" />
<c:set var="USER" value="${sessionScope.name}" />
<c:choose>
<c:when test="${VIMAL eq USER}">
<div class="row">
<div class="col-2">
<label><b>Status</b></label>
</div>
<div class="col-5">
<input type="text" name="status" class="form-control"
value="${THE_COMPLAINT.status}"/>
</div>
</div><br />
</c:when>
</c:choose>
<div class="row">
<div class="col-8 mx-auto">
<input type="submit" class="btn btn-primary"
value="Save" />
</div>
</div>
</form>
<p>
<a href="ComplaintControllerServlet">Back to List</a>
</p>
</div>
</body>
```

```
</html>
```

Update-user-form.java

```html
<html>
<head>
<title>Update User</title>
</head>
<body>
 <%@include file="navbar.jsp" %><br />
 <div class="container">
 <h3>Update User</h3>
 <form action="UserControllerServlet" class="form-
horizontal" method="GET">
 <input type="hidden" name = "command" value="UPDATE" />
 <input type="hidden" name = "theUserId"
value="${THE_USER.id }" />
 <div class="row">
 <div class="col-2">
 <label><b>Username</b></label>
 </div>
 <div class="col-5">
 <input type="text" name="username" class="form-control"
value="${THE_USER.username}"/>
 </div>
 </div><br />
 <div class="row">
 <div class="col-2">
 <label><b>Email</b></label>
 </div>
```

```html
<div class="col-5">
<input type="text" name="email" class="form-control" value="${THE_USER.email}"/>
</div>
</div><br />
<div class="row">
<div class="col-2">
<label><b>Password</b></label>
</div>
<div class="col-5">
<input type="password" name="password" class="form-control" value="${THE_USER.password}"/>
</div>
</div><br />
<div class="row">
<div class="col-8 mx-auto">
<input type="submit" class="btn btn-primary" value="Save" />
</div>
</div>
</form>
<p>
<a href="ComplaintControllerServlet">Back to List</a>
</p>
</div>
</body>
</html>
```

Navbar.jsp

```jsp
<%@ taglib uri="http://java.sun.com/jsp/jstl/core"
prefix="c" %>
<html>
<head>

<link rel="stylesheet"
href="bootstrap/dist/css/bootstrap.min.css">
<link rel="stylesheet"
href="bootstrap/dist/css/bootstrap-theme.min.css">
<script src="jquery-3.3.1.min.js"></script>
<script src="popper.min.js"></script>
<script
src="bootstrap/dist/js/bootstrap.min.js"></script>


</head>
<body>
<div class="container">
<c:set var="VIMAL" value="vimal" />
<c:set var="USER" value="${sessionScope.name}" />
<c:set var="UID" value="${sessionScope.uid}" />
<c:if test="${not empty USER}">
<h2>Complaint Management</h2>
<hr />
</c:if>
<c:choose>
<c:when test="${VIMAL eq USER}">
<a href="/complaint/HomeControllerServlet">Home</a>
<a
href="/complaint/StudentControllerServlet">Products</a>
```

```html
<a
href="/complaint/ComplaintControllerServlet">Complaints<
/a>
<a
href="/complaint/EngineerControllerServlet">Engineers</a
>
<a href="/complaint/UserControllerServlet">Users</a>
<a
href="/complaint/ReplacementControllerServlet">Replaceme
nts</a>
<a href="/complaint/LogoutServlet">Logout</a>
</c:when>
<c:when test="${empty USER}">
</c:when>
<c:otherwise>
<a href="/complaint/HomeControllerServlet">Home</a>
<a
href="/complaint/StudentControllerServlet">Products</a>
<a
href="/complaint/ComplaintControllerServlet">Complaints<
/a>
<c:url var="tempLink" value="UserControllerServlet">
                        <c:param name="command"
value="LOAD" />
                        <c:param name="userId"
value="${sessionScope.uid}" />
                    </c:url>
<a href="${tempLink}">Update</a>
<a href="/complaint/LogoutServlet">Logout</a>
</c:otherwise>
</c:choose>
```

```
</div>
</body>
</html>
```

List-users.jsp

```
<%@ taglib uri="http://java.sun.com/jsp/jstl/core"
prefix="c" %>

<!DOCTYPE html>
<html>
<head>
    <title>Complaint Management</title>
</head>
<body>
<%@include file="navbar.jsp" %><br />
<div class="container">
<input type="button" class="btn btn-primary" value="Add
User" onclick="window.location.href='add-user-form.jsp';
return false;" /><br /><br />
<table class="table table-striped table-hover">
    <tr>
        <th>ID</th>
        <th>EmailID</th>
        <th>Name</th>
        <th>Action</th>
        </tr>
    <c:forEach var="temp" items="${USER_LIST}">
    <c:url var="tempLink" value="UserControllerServlet">
                        <c:param name="command"
value="LOAD" />
```

```jsp
                        <c:param name="userId"
value="${temp.id}" />
                    </c:url>

                    <c:url var="deleteLink"
value="UserControllerServlet">
                        <c:param name="command"
value="DELETE" />
                        <c:param name="userId"
value="${temp.id}" />
                    </c:url>
    <tr>
        <td> ${temp.id} </td>
        <td> ${temp.email} </td>
        <td> ${temp.username} </td>
        <td>
                        <a
href="${tempLink}">Update</a>
                        |
                        <a href="${deleteLink}"
                        onclick="if(!(confirm('Are
you sure you want to delete this student?'))) return
false">Delete</a>
                    </td>
    </tr>
    </c:forEach>
</table>
</div>
</body>
</html>
```
----

add-user-form.jsp

```html
<html>
<head>
<title>Add User</title>
</head>
<body>
 <%@include file="navbar.jsp" %><br />
 <div class="container">
 <h3>Add User</h3>

 <form action="UserControllerServlet" method="POST">
 <input type="hidden" name="command" value="ADD" />
 <div class="row">
 <div class="col-2">
 <label><b>Name</b></label>
 </div>
 <div class="col-5">
 <input type="text"  class="form-control" name="name" />
 </div>
 </div><br />
 <div class="row">
 <div class="col-2">
 <label><b>Email</b></label>
 </div>
 <div class="col-5">
 <input type="text"  class="form-control" name="email"
/>
 </div>
 </div><br />
 <div class="row">
```

```html
  <div class="col-2">
  <label><b>Password</b></label>
  </div>
  <div class="col-5">
  <input type="password"  class="form-control"
name="password1" />
  </div>
  </div><br />
  <div class="row">
  <div class="col-2">
  <label><b>Confirm Passsword</b></label>
  </div>
  <div class="col-5">
  <input type="password"  class="form-control"
name="password2" />
  </div>
  </div><br />
<div class="row">
  <div class="col-8 mx-auto">
  <input type="submit" class="btn btn-primary"
value="Save" />
  </div>
  </div>
  </form>
  <p>
  <a href="UserControllerServlet">Back to List</a>
  </p>
  </div>
</body>
</html>
```

Add-complaint-form.jsp

```
<html>
<head>
<title>Add Complaint</title>
</head>
<body>
   <%@include file="navbar.jsp" %><br />
 <div class="container">
 <h3>Add Complaint</h3>
 <form action="ComplaintControllerServlet" class="form-
horizontal" method="POST">
 <input type="hidden" name = "command" value="ADD" />
<div class="row">
<div class="col-2">
<label for="det"><b></>Details</b>  </label>
</div>
<div class="col-5">
<input type="text" id="det" class="form-control"
placeholder="details" name="details" />
</div>
</div><br />
<div class="row">
 <div class="col-8 mx-auto">
 <input type="submit" class="btn btn-primary"
value="Save" />
 </div>
 </div>
 </form>
 <p>
 <a href="ComplaintControllerServlet">Back to List</a>
```

```html
    </p>
</div>
</body>
</html>
```

Complaint.java

```java
package com.complaint.Complaint;

public class Complaint
{
  private int cId;
  private int uid;
  private String details;
  private String status;

  public Complaint(int uid, String details)
  {
    this.uid = uid;
    this.details = details;
  }

  public Complaint(String details,int uid, String
status)
  {

    this.uid = uid;
    this.details = details;
    this.status = status;
  }
```

```java
  public Complaint(int cId, String details, String
status)
  {
    this.cId = cId;
    this.details = details;
    this.status = status;
  }

  public Complaint(String details, String status)
  {
    this.details = details;
    this.status = status;
  }


  public Complaint(String details)
  {
    this.details = details;
  }

  public int getUid() {
    return uid;
  }

  public void setUid(int uid) {
    this.uid = uid;
  }

  public int getcId() {
    return cId;
  }
```

```java
  public void setcId(int cId) {
    this.cId = cId;
  }

  public String getDetails() {
    return details;
  }

  public void setDetails(String details) {
    this.details = details;
  }

  public String getStatus() {
    return status;
  }

  public void setStatus(String status) {
    this.status = status;
  }
}
```

ComplaintControllerServlet.java

```java
package com.complaint.Complaint;

import java.io.IOException;
import java.util.List;

import javax.annotation.Resource;
import javax.servlet.RequestDispatcher;
```

```java
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;
import javax.sql.DataSource;


@WebServlet("/ComplaintControllerServlet")
public class ComplaintControllerServlet extends
HttpServlet
{
  private ComplaintDbUtil complaintDbUtil;
  @Resource(name="jdbc/web_student_tracker")
  private DataSource dataSource;

  @Override
  public void init() throws ServletException
  {
    try
    {
      complaintDbUtil = new ComplaintDbUtil(dataSource);
    }
    catch(Exception exc)
    {
      throw new ServletException(exc);
    }
  }
```

```java
  protected void doGet(HttpServletRequest request,
HttpServletResponse response) throws ServletException,
IOException
  {
    try
    {
      String theCommand =
request.getParameter("command");
      if(theCommand == null)
      {
        theCommand = "LIST";
      }
      switch(theCommand)
      {
        case "LIST": listComplaints(request, response);
              break;
        case "LOAD": loadComplaint(request, response);
              break;
        case "UPDATE":
updateComplaint(request,response);
               break;
        case "DELETE":
deleteComplaint(request,response);
               break;
        default   : listComplaints(request, response);
      }

    }
    catch(Exception exc)
    {
      throw new ServletException(exc);
```

```java
        }
    }

    protected void doPost(HttpServletRequest request,
HttpServletResponse response) throws ServletException,
IOException
    {
        try
        {
            addComplaint(request,response);
            response.sendRedirect("/complaint/add-product-
form.jsp");
        }
        catch(Exception exc)
        {
            throw new ServletException(exc);
        }
    }

    private void listComplaints(HttpServletRequest
request, HttpServletResponse response) throws Exception
    {
        HttpSession session = request.getSession();
        String user = (String)session.getAttribute("name");
        int uid = (int)session.getAttribute("uid");
        if(user.equals("vimal"))
        {
            List<Complaint> complaints =
complaintDbUtil.getComplaints();
            request.setAttribute("COMPLAINT_LIST",
complaints);
```

```java
      RequestDispatcher dispatcher =
request.getRequestDispatcher("/list-complaints.jsp");
      dispatcher.forward(request, response);
    }
    else
    {
      List<Complaint> complaints =
complaintDbUtil.getComplaints(uid);
      request.setAttribute("COMPLAINT_LIST",
complaints);
      RequestDispatcher dispatcher =
request.getRequestDispatcher("/list-complaints.jsp");
      dispatcher.forward(request, response);
    }
  }

  private void deleteComplaint(HttpServletRequest
request, HttpServletResponse response) throws Exception
  {
    String theComplaintId =
request.getParameter("complaintId");
    complaintDbUtil.deleteComplaint(theComplaintId);
    listComplaints(request,response);
  }

  private void updateComplaint(HttpServletRequest
request, HttpServletResponse response) throws Exception
  {
    int cId =
Integer.parseInt(request.getParameter("theComplaintId"))
;
```

```java
      String details = request.getParameter("details");
      String status  = request.getParameter("status");
      Complaint theComplaint = new
Complaint(cId,details,status);
      complaintDbUtil.updateComplaint(theComplaint);
      listComplaints(request,response);
    }

  private void loadComplaint(HttpServletRequest request,
HttpServletResponse response) throws Exception
    {
      String theComplaintId   =
request.getParameter("complaintId");
      Complaint theComplaint     =
complaintDbUtil.getComplaint(theComplaintId);
      request.setAttribute("THE_COMPLAINT", theComplaint);

      RequestDispatcher dispatcher =
request.getRequestDispatcher("/update-complaint-
form.jsp");
      dispatcher.forward(request, response);

    }

  private void addComplaint(HttpServletRequest request,
HttpServletResponse response) throws Exception
    {
      HttpSession session = request.getSession();
      int userId = (int) session.getAttribute("uid");
      String details  = request.getParameter("details");
```

```java
    Complaint theComplaint  = new
Complaint(userId,details);
    complaintDbUtil.addComplaint(theComplaint);
    session.setAttribute("Details", details);
    //listComplaints(request,response);


  }
}
```

Homepage.java

```java
package com.complaint.HomePage;

public class Home
{
  private int cid;
  private String details;
  private String status;
  private int serialId;
  private String name;
  private String type;
  private String company;
  private String warantyDate;
  private String rname;
  private int price;
  private String ename;

  public Home(int cid, String details, String status,
int serialId, String name, String type, String company,
      String warantyDate, String rname, int price,
String ename)
```

```java
{
  this.cid = cid;
  this.details = details;
  this.status = status;
  this.serialId = serialId;
  this.name = name;
  this.type = type;
  this.company = company;
  this.warantyDate = warantyDate;
  this.rname = rname;
  this.price = price;
  this.ename = ename;
}

public int getCid()
{
  return cid;
}

public void setCid(int cid)
{
  this.cid = cid;
}

public String getDetails()
{
  return details;
}

public void setDetails(String details)
{
```

```java
    this.details = details;
  }

  public String getStatus()
  {
    return status;
  }

  public void setStatus(String status)
  {
    this.status = status;
  }

  public int getSerialId()
  {
    return serialId;
  }

  public void setSerialId(int serialId)
  {
    this.serialId = serialId;
  }

  public String getName()
  {
    return name;
  }

  public void setName(String name)
  {
    this.name = name;
```

```java
  }

  public String getType()
  {
    return type;
  }

  public void setType(String type)
  {
    this.type = type;
  }

  public String getCompany()
  {
    return company;
  }

  public void setCompany(String company)
  {
    this.company = company;
  }

  public String getWarantyDate()
  {
    return warantyDate;
  }

  public void setWarantyDate(String warantyDate)
  {
    this.warantyDate = warantyDate;
  }
```

```java
  public String getRname()
  {
    return rname;
  }

  public void setRname(String rname)
  {
    this.rname = rname;
  }

  public int getPrice()
  {
    return price;
  }

  public void setPrice(int price)
  {
    this.price = price;
  }

  public String getEname()
  {
    return ename;
  }

  public void setEname(String ename)
  {
    this.ename = ename;
  }
}
```

HomeControllerServlet.java

```java
package com.complaint.HomePage;

import java.io.IOException;
import java.util.List;

import javax.annotation.Resource;
import javax.servlet.RequestDispatcher;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;
import javax.sql.DataSource;

import com.complaint.Engineer.Engineer;

@WebServlet("/HomeControllerServlet")
public class HomeControllerServlet extends HttpServlet
{
    private HomeDbUtil homeDbUtil;
    @Resource(name="jdbc/web_student_tracker")
    private DataSource dataSource;

    @Override
    public void init() throws ServletException
    {
```

```java
    try
    {
      homeDbUtil = new HomeDbUtil(dataSource);
    }
    catch(Exception exc)
    {
      throw new ServletException(exc);
    }
  }

  protected void doGet(HttpServletRequest request,
HttpServletResponse response) throws ServletException,
IOException
  {
    HttpSession session = request.getSession();
    int uid = (int)session.getAttribute("uid");
    String admin=(String)session.getAttribute("name");
    try
    {
      if(admin.equals("vimal"))
      {
        List<Home> homes=homeDbUtil.getHome();
        request.setAttribute("HOME_LIST", homes);
        RequestDispatcher dispatcher =
request.getRequestDispatcher("/list-homes.jsp");
        dispatcher.forward(request, response);
      }
      else
      {
        List<Home> homes=homeDbUtil.getHome(uid);
        request.setAttribute("HOME_LIST", homes);
```

```
        RequestDispatcher dispatcher =
request.getRequestDispatcher("/list-homes.jsp");
        dispatcher.forward(request, response);
      }
    }
    catch(Exception exc)
    {
      throw new ServletException(exc);
    }
  }
}
```

Complaint.java

```
package com.complaint.Replacement;

public class Replacement
{
  private int id;
  private int cId;
  private String name;
  private int price;

  public Replacement(int id, String name, int price)
  {
    this.id = id;
    this.name = name;
    this.price = price;
  }
```

```java
  public Replacement(String name, int price)
  {
    this.name = name;
    this.price = price;
  }


  public Replacement(int id, int cId, String name, int
price)
  {
    this.id = id;
    this.cId = cId;
    this.name = name;
    this.price = price;
  }



  public int getcId() {
    return cId;
  }

  public void setcId(int cId) {
    this.cId = cId;
  }

  public int getId() {
    return id;
  }

  public void setId(int id) {
    this.id = id;
```

```java
    }

  public String getName() {
    return name;
  }

  public void setName(String name) {
    this.name = name;
  }

  public int getPrice() {
    return price;
  }

  public void setPrice(int price) {
    this.price = price;
  }


}
```

ReplacementControllerServlet.java

```java
package com.complaint.Replacement;

import java.io.IOException;
import java.util.List;

import javax.annotation.Resource;
import javax.servlet.RequestDispatcher;
import javax.servlet.ServletException;
```

```java
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.sql.DataSource;


@WebServlet("/ReplacementControllerServlet")
public class ReplacementControllerServlet extends
HttpServlet
{
  private ReplacementDbUtil replacementDbUtil;
  @Resource(name="jdbc/web_student_tracker")
  private DataSource dataSource;

  @Override
  public void init() throws ServletException
  {
    try
    {
      replacementDbUtil = new
ReplacementDbUtil(dataSource);
    }
    catch(Exception exc)
    {
      throw new ServletException(exc);
    }
  }

  protected void doGet(HttpServletRequest request,
HttpServletResponse response) throws ServletException,
IOException
```

```java
  {

    try
    {
      String theCommand =
request.getParameter("command");
      if(theCommand == null)
      {
        theCommand = "LIST";
      }
      switch(theCommand)
      {
        case "LIST": listReplacements(request,
response);
                break;
        case "LOAD": loadReplacement(request, response);
                break;
        case "UPDATE":
updateReplacement(request,response);
                 break;
        case "DELETE":
deleteReplacement(request,response);
                 break;
        default   : listReplacements(request, response);
      }

    }
    catch(Exception exc)
    {
      throw new ServletException(exc);
    }
```

```java
  }
  protected void doPost(HttpServletRequest request,
HttpServletResponse response) throws ServletException,
IOException
  {
    try
    {
      addReplacement(request,response);
    }
    catch(Exception exc)
    {
      throw new ServletException(exc);
    }
  }

  private void listReplacements(HttpServletRequest
request, HttpServletResponse response) throws Exception
  {
    List<Replacement> replacements =
replacementDbUtil.getReplacements();

    request.setAttribute("REPLACEMENT_LIST",
replacements);

    RequestDispatcher dispatcher =
request.getRequestDispatcher("/list-replacements.jsp");
    dispatcher.forward(request, response);
  }

  private void deleteReplacement(HttpServletRequest
request, HttpServletResponse response) throws Exception
```

```java
  {
    String theReplacementId =
request.getParameter("replacementId");

replacementDbUtil.deleteReplacement(theReplacementId);
    listReplacements(request,response);
  }

  private void updateReplacement(HttpServletRequest
request, HttpServletResponse response) throws Exception
  {
    int id =
Integer.parseInt(request.getParameter("theReplacementId"
));
    int cId =
Integer.parseInt(request.getParameter("theComplaintId"))
;
    String name = request.getParameter("name");
    int price =
Integer.parseInt(request.getParameter("price"));
    Replacement theReplacement = new
Replacement(id,cId,name,price);
    replacementDbUtil.updateReplacement(theReplacement);
    listReplacements(request,response);
  }

  private void loadReplacement(HttpServletRequest
request, HttpServletResponse response) throws Exception
  {
    String theReplacementId    =
request.getParameter("replacementId");
```

```java
        Replacement theReplacement  =
replacementDbUtil.getReplacement(theReplacementId);
        request.setAttribute("THE_REPLACEMENT",
theReplacement);

        RequestDispatcher dispatcher =
request.getRequestDispatcher("/update-replacement-
form.jsp");
        dispatcher.forward(request, response);
    }

    private void addReplacement(HttpServletRequest
request, HttpServletResponse response) throws Exception
    {
        String name  = request.getParameter("name");
        int price  =
Integer.parseInt(request.getParameter("price"));
        Replacement theReplacement  = new
Replacement(name,price);
        replacementDbUtil.addReplacement(theReplacement);

        listReplacements(request,response);
    }
}
```

User.java

```java
package com.complaint.User;

public class User
{
```

```java
  private int id;
  private String email;
  private String username;
  private String password;

  public User(int id, String email, String username,
String password)
  {
    this.id = id;
    this.email = email;
    this.username = username;
    this.password = password;
  }

  public User(String email, String username, String
password)
  {
    this.email = email;
    this.username = username;
    this.password = password;
  }

  public User(int id, String email, String username)
  {
    this.id = id;
    this.email = email;
    this.username = username;
  }

  public User(String email, String username)
  {
```

```java
    this.email = email;
    this.username = username;
  }

  public int getId() {
    return id;
  }

  public void setId(int id) {
    this.id = id;
  }

  public String getEmail() {
    return email;
  }

  public void setEmail(String email) {
    this.email = email;
  }

  public String getUsername() {
    return username;
  }

  public void setUsername(String username) {
    this.username = username;
  }

  public String getPassword() {
    return password;
  }
```

```java
  public void setPassword(String password) {
    this.password = password;
  }
}
```

UserControllerServlet.java

```java
package com.complaint.User;

import java.io.IOException;
import java.util.List;

import javax.annotation.Resource;
import javax.servlet.RequestDispatcher;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;
import javax.sql.DataSource;

@WebServlet("/UserControllerServlet")
public class UserControllerServlet extends HttpServlet
{
  private UserDbUtil userDbUtil;
  @Resource(name="jdbc/web_student_tracker")
  private DataSource dataSource;
```

```java
  @Override
  public void init() throws ServletException
  {
    try
    {
      userDbUtil = new UserDbUtil(dataSource);
    }
    catch(Exception exc)
    {
      throw new ServletException(exc);
    }
  }


  protected void doGet(HttpServletRequest request,
HttpServletResponse response) throws ServletException,
IOException
  {
    try
    {
      String theCommand =
request.getParameter("command");
      if(theCommand == null)
      {
        theCommand = "LIST";
      }
      switch(theCommand)
      {
        case "LIST": listUsers(request, response);
                break;
        case "LOAD": loadUser(request, response);
```

```java
                break;
        case "UPDATE": updateUser(request,response);
                break;
        case "DELETE": deleteUser(request,response);
                break;
        default   : listUsers(request, response);
      }


    }
    catch(Exception exc)
    {
      throw new ServletException(exc);
    }


  }
  protected void doPost(HttpServletRequest request,
HttpServletResponse response) throws ServletException,
IOException
  {
    try
    {
      addUser(request,response);
    }
    catch(Exception exc)
    {
      throw new ServletException(exc);
    }
  }

  private void listUsers(HttpServletRequest request,
HttpServletResponse response) throws Exception
```

```java
  {
    List<User> users = userDbUtil.getUsers();

    request.setAttribute("USER_LIST", users);

    RequestDispatcher dispatcher =
request.getRequestDispatcher("/list-users.jsp");
    dispatcher.forward(request, response);
  }

  private void deleteUser(HttpServletRequest request,
HttpServletResponse response) throws Exception
  {
    String theUserId = request.getParameter("userId");
    userDbUtil.deleteUser(theUserId);
    listUsers(request,response);
  }

  private void updateUser(HttpServletRequest request,
HttpServletResponse response) throws Exception
  {
    int id =
Integer.parseInt(request.getParameter("theUserId"));
    String name = request.getParameter("username");
    String email = request.getParameter("email");
    String password = request.getParameter("password");
    User theUser = new User(id,email,name,password);
    userDbUtil.updateUser(theUser);
    HttpSession session = request.getSession();
    String admin = (String)session.getAttribute("name");
    if(admin.equals("vimal"))
```

```java
            {
                listUsers(request,response);
            }
            else
            {

response.sendRedirect("/complaint/HomeControllerServlet"
);
            }
        }

    private void loadUser(HttpServletRequest request,
HttpServletResponse response) throws Exception
        {
            String theUserId      =
request.getParameter("userId");
            User theUser  = userDbUtil.getUser(theUserId);
            request.setAttribute("THE_USER", theUser);
            RequestDispatcher dispatcher =
request.getRequestDispatcher("/update-user-form.jsp");
            dispatcher.forward(request, response);
        }

    private void addUser(HttpServletRequest request,
HttpServletResponse response) throws Exception
        {
            String name  = request.getParameter("name");
            String email  = request.getParameter("email");
            String password1  =
request.getParameter("password1");
```

```
    String password2  =
request.getParameter("password2");
    HttpSession session = request.getSession();
    String admin;
    User theUser;
    admin = (String)session.getAttribute("name");
    if(admin==null)
    {
      admin="";
    }
    if(password1.equals(password2))
    {

      theUser = new User(email,name,password1);
      userDbUtil.addUser(theUser);
      if(admin.equals("vimal"))
      {
        listUsers(request,response);
      }
      else if(admin.equals(""))
      {
        response.sendRedirect("/complaint/login.jsp");
      }
    }

  }
}
```

Context.xml

```xml
<Context>
```

```xml
<Resource name="jdbc/web_student_tracker"
auth="Container" type="javax.sql.DataSource"
maxActive="20" maxIdle="5" maxWait="10000"
username="webstudent" password="webstudent"
driverClassName="com.mysql.jdbc.Driver"
url="jdbc:mysql://localhost:3306/web_student_tracker"
/>
</Context>
```

===============================X===============================