TEAM : 18

NAME : K.P.SHRIRAM (ALONE)

UNIQUE ID : E0219007

DEPARTMENT : CSE (CYS AND IOT)

SUBJECT : ADVANCE JAVA

COURSE : CSE - 280

TOPIC : PRIVATE MAILING

SYSTEM



ABSTRACT:

To Design the system which allows a group of people and organization to pass message through mailing system.

Introduction:

A private mailer application that can be used by companies or organizations for mailing. Each user can send emails, receive and delete mails after registering into system.

There are two user of the system:

- 1. Admin
- 2. User

The User functionalities in this Mailing system:

- 1. Can login and logout
- 2. Can register
- 3. Can send mails
- 4. Can see inbox
- 5. Can view send mails.
- 6. Can see Trash.
- 7. Can search others id (mail id).
- 8. Can update and view their profile.

The Admin functionalities:

- 1. Can see logged members.
- 2. Can unauthorize the person in system.

User interface:

This system has simple user interface as I designed this page simple and easy for user to interact.

Project software Details:

How this project works?: This system build through combination of Servlets, Html pages and Database.

- Servlets are building blocks for this project because it acts as intermediate between frontend and backend. All necessary functions like queries and arranging html pages in proper orders are done by servlets.
- Html pages are frontend interacting part of the project. The user can input their information to process into this system.
- Database is backend part of this system. JDBC is used here to make project simple (also use oracle), stores all information about user registered and validation of user. Database can be viewed by admin to administrate the system. All the records of this project get stored in form of tables for better analysing the data.



Database Schema:

User Table :

#	Name	Туре	Collation	Attributes	Null	Default	Comments	Extra	Action		
1	ID 🔑	int(11)			No	None			<i> ⊘</i> Change	Drop	▼ More
2	NAME	varchar(50)	utf8mb4_general_ci		No	None			Change	Drop	▼ More
3	EMAIL	varchar(50)	utf8mb4_general_ci		No	None			<i> </i>	Drop	▼ More
4	PASSWORD	varchar(50)	utf8mb4_general_ci		No	None			Change	Drop	▼ More
5	GENDER	varchar(50)	utf8mb4_general_ci		No	None			<i>⊘</i> Change	Drop	▼ More
6	DOB	date			No	None			Change	Drop	▼ More
7	ADDRESSLINE	varchar(50)	utf8mb4_general_ci		No	None			<i> ⊘</i> Change	Drop	▼ More
8	CITY	varchar(50)	utf8mb4_general_ci		No	None			<i>⊘</i> Change	Drop	▼ More
9	STATE	varchar(50)	utf8mb4_general_ci		No	None			<i> </i> Change	Drop	▼ More
10	COUNTRY	varchar(50)	utf8mb4_general_ci		No	None			Change	Drop	▼ More
11	CONTACT	varchar(50)	utf8mb4_general_ci		No	None			<i> ⊘</i> Change	Drop	▼ More
12	REGISTERDATE	date			No	None			Change	Drop	▼ More
13	AUTHORISED	varchar(50)	utf8mb4_general_ci		No	None			<i>⊘</i> Change	Drop	▼ More

USER STORAGE:

ID	NAME	EMAIL	PASSWORD	GENDER	DOB	ADDRESSLINE	CITY	STATE	COUNTRY	CONTACT	REGISTERDATE	AUTHORISED
-1	Shriram	dinothunderkp@gmail.com	123456	Male	2001-08-18	14/12, Ramalinganar street	Chennai	Tamil nadu	India	6383300389	2020-12-03	yes

Message Table :

#	Name	Туре	Collation	Attributes	Null	Default	Comments	Extra	Action			
1	ID	int(11)			No	None			<i> </i>	Drop	▼	More
2	SENDER	varchar(50)	utf8mb4_general_ci		No	None			Change	Drop	₩	More
3	RECEIVER	varchar(50)	utf8mb4_general_ci		No	None			<i>⊘</i> Change	Drop	₩	More
4	SUBJECT	varchar(100)	utf8mb4_general_ci		No	None			Change	Drop	₩	More
5	MESSAGE	varchar(200)	utf8mb4_general_ci		No	None			<i>⊘</i> Change	Drop	₩	More
6	TRASH	varchar(200)	utf8mb4_general_ci		No	None			Change	Drop	₩	More
7	MESSAGEDATE	date			No	None			Change	Drop	₩	More

MESSAGE DETAILS:

ID	SENDER	RECEIVER	SUBJECT	MESSAGE	TRASH	MESSAGEDATE
1	SHRIRAM	KP	HITHIS IS CHECK MESSAGE	MESSAGE IS PASSED SUCCESSEULLY	NO	2020-12-03

CODING (PRIVATE MAILING SYSTEM):

There are three parts of coding section:

- 1. Frontend (Html).
- 2. Backend (mysql).
- 3. Intermediate (Servlets).

SERVLETS:

Indexservlet.java:

```
import java.io.*;
import javax.servlet.http.*;
import javax.servlet.*;
import java.sql.*;
@WebServlet("/inboxservlet")
public class inboxservlet extends HttpServlet {
    protected void doGet(HttpServletRequest request, HttpServletResponse) thro
ws ServletException, IOException{
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        request.getRequestDispatcher("header.html").include(request, response)
        request.getRequestDispatcher("link.html").include(request, response);
        HttpSession session = request.getSession(false);
        if(session == null){
            response.sendRedirect("index.html");
        }else{
            String email = (String)session.getAttribute("email");
            out.print("<span style='float:right'>Hi, "+email+"</span>");
            out.print("<h1>Inbox</h1>");
            String email=(String)session.getAttribute("msg");
            if(msg!=null){
                out.print(""+msg+"");
            try{
                Connection con = ConProvider.getConnection();
                PreparedStatement ps=con.prepareStatement("select * from compa
ny mailer message where receiver=? and trash='no' order by id desc");
```

```
ps.setString(1, email);
             ResultSet rs = ps.executeQuery();
             out.println("");
             out.println("
color:grey;color:white'>SenderSubject");
             while(rs.next()){
                 out.print(""+rs.getString("sender")+"<a h
ref='viewmailservlet?id="+rs.getString(1)+"'>"+rs.getString("subject")+"</a></
td>");
             out.print("");
             con.close();
          }catch(Exception e){out.print(e);}
      request.getRequestDispatcher("footer.html").include(request, response);
      out.close();
   protected void doPost(HttpServletRequest request,HttpServletResponse respo
nse) throws ServletException, IOException{
      doGet(request, response);
```

Loginmain.java:

```
import java.sql.*;
public class loginmain {
    public static boolean validate(String email, String password){
        boolean status = false;
        try{
            Connection con = Provider.getConnection();
            PreparedStatement ps = con.prepareStatement("select * from company
mailer user where email=? and password=? and authorized=?");
            ps.setString(1,email);
            ps.setString(2,password);
            ps.setString(3,"yes");
            ResultSet rs = ps.executeQuery();
            if(rs.next()){
                status = true;
        catch(Exception e){
            System.out.println(e);
```

```
}
return status;
}
}
```

Loginservlet.java:

```
import java.io.IOException;
import java.io.PrintWriter;
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.sql.*;
@WebServlet("/loginservlet")
public class loginservlet extends HttpServlet {
    protected void doPost(HttpServletRequest request, HttpServletResponse resp
onse) throws ServletException, IoException{
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        request.getRequestDispatcher("header.html").include(request, response);
        String email = request.getParameter("email;");
        String password = request.getParameter("password");
        if(loginmain.validate(email, password)){
            request.getSession().setAttribute("login", "true");
            request.getSession().setAttribute("email",email);
            request.sendRedirect("InboxServlet");
        }
        else{
            out.print(" Sorry, Username or password error ");
            request.getRequestDispatcher("login.html").include(request, respons
e);
        request.getRequestDispatcher("footer.html").include(request, response);
        out.close();
    }
```

Logoutservlet.java:

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;

@WebServlet("/logoutservlet")
public class logoutservlet extends HttpServlet {
    protected void doGet(HttpServletRequest request,HttpServletResponse respon
se) throws ServletException, IOException{
    response.setContentType("text/html");
    PrintWriter out = response.getWriter();
    request.getRequestDispatcher("header.html").include(request,response);

    request.getSession().invalidate();
    out.print(" You are successfully logged out ! ");

    request.getRequestDispatcher("login.html").include(request,response);
    request.getRequestDispatcher("footer.html").include(request,response);
    out.close();
}
```

Permanentdeletemailservlet.java:

```
import java.io.*;
import java.sql.*;
import javax.servlet.http.*;
import javax.servlet.*;
@WebServlet("/permanentdeletemailservlet")
public class permanentdeletemailservlet extends HttpServlet{
    protected void doGet(HttpServletRequest request, HttpServletResponse respo
nse) throws ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out=response.getWriter();
        request.getRequestDispatcher("header.html").include(request, response)
        request.getRequestDispatcher("link.html").include(request, response);
        HttpSession session=request.getSession(false);
        if(session==null){
            response.sendRedirect("index.html");
        }else{
           String email=(String)session.getAttribute("email");
```

```
out.print("<span style='float:right'>Hi, "+email+"</span>");
            int id=Integer.parseInt(request.getParameter("id"));
            try{
                Connection con=ConProvider.getConnection();
                PreparedStatement ps=con.prepareStatement("delete from company
_mailer_message where id=?");
                ps.setInt(1,id);
                int i=ps.executeUpdate();
                if(i>0){
                    request.setAttribute("msg", "Mail successfully deleted perm
anently!");
                    request.getRequestDispatcher("TrashServlet").forward(reque
st, response);
                con.close();
            }catch(Exception e){out.print(e);}
        request.getRequestDispatcher("footer.html").include(request, response)
        out.close();
```

Registermain.java:

```
import java.sql.*;

public class registermain {
    public static void save(String name, String email,String password,String g
ender, String dob,String addressLine,String city,String state,String country,S
tring contact){
    int status=0;
        java.sql.Date sqlDOB=formatter.getSqlDate(dob);
        try{
            Connection con = ConProvider.getConnection();
            PreparedStatement ps = con.prepareStatement("insert into company_m
ailer_user(name,email,password,gender,dob,addressLine,city,state,country,conta
ct,registereddate,authorized) values(?,?,?,?,?,?,?,?,?,?,?)");
```

```
ps.setString(1,name);
    ps.setString(2,email);
    ps.setString(3,password);
    ps.setString(4,gender);
    ps.setDate(5,sqlDOB);
    ps.setString(6,addressLine);
    ps.setString(7,city);
    ps.setString(8,state);
    ps.setString(9,country);
    ps.setString(10,contact);
    ps.setString(10,contact);
    ps.setDate(11,formatter.getCurrentDate());
    ps.setString(12,"yes");
    status=ps.executeUpdate();
    }catch(Exception e){System.out.println(e);}
    return status;
}
```

Registerservlet.java:

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
@WebServlet("/registerservlet")
public class registerservlet extends HttpServlet{
    protected void doPost(HttpServletRequest request,HttpServletResponse respo
nse) throws ServletException, IOException{
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        request.getRequestDispatcher("header.html").include(request, response);
        String name=request.getParameter("name");
        String password=request.getParameter("password");
        String email=request.getParameter("email");
        String gender=request.getParameter("gender");
        String dob=request.getParameter("dob");
        String addressLine=request.getParameter("addressLine");
        String city=request.getParameter("city");
        String state=request.getParameter("state");
        String country=request.getParameter("country");
        String contact=request.getParameter("contact");
```

```
int status = registermain.save(name, email+"@cmailer.com",password,gen
der,dob,addressLine,city,state,country,contact);
    if(status>0){
        out.print(" You are successfully registered!");
        request.getRequestDispatcher("login.html").include(request, respon
se);
    }
    request.getRequestDispatcher("footer.html").include(request,response,response);
    out.close();
}
```

Sendservlet.java:

```
import java.io.*;
import java.sql.*;
import javax.servlet.http.*;
import javax.servlet.*;
@WebServlet("/sendservlet")
public class sendservlet extends HttpServlet{
    protected void doGet(HttpServletRequest request, HttpServletResponse respo
nse) throws ServletException, IOException{
        response.setContentType("text/html");
        PrintWriter out=response.getWriter();
        request.getRequestDispatcher("header.html").include(request, response)
        request.getRequestDispatcher("link.html").include(request, response);
        HttpSession session=request.getSession(false);
        if(session==null){
            response.sendRedirect("index.html");
        }else{
            String email=(String)session.getAttribute("email");
            out.print("<span style='float:right'>Hi, "+email+"</span>");
            out.print("<h1>Sent Mail</h1>");
            try{
                Connection con=ConProvider.getConnection();
```

```
PreparedStatement ps=con.prepareStatement("select * from compa
ny_mailer_message where sender=? and trash='no' order by id desc");
             ps.setString(1,email);
             ResultSet rs=ps.executeQuery();
             out.print("");
             out.print("
color:grey;color:white'>ToSubject");
             while(rs.next()){
                out.print(""+rs.getString("receiver")+"<a</pre>
href='ViewMailServlet?id="+rs.getString(1)+"'>"+rs.getString("subject")+"</a>
");
             out.print("");
             con.close();
         }catch(Exception e){out.print(e);}
      }
      request.getRequestDispatcher("footer.html").include(request, response)
      out.close();
```

Trashservlet.java:

```
import java.io.*;
import java.sql.*;
import javax.servlet.*;
import javax.servlet.http.*;

@WebServlet("/trashservlet")
public class trashservlet extends HttpServlet{
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out=response.getWriter();
        request.getRequestDispatcher("header.html").include(request, response);

        HttpSession session=request.getSession(false);
        if(session==null){
```

```
response.sendRedirect("index.html");
      }else{
          String email=(String)session.getAttribute("email");
          out.print("<span style='float:right'>Hi, "+email+"</span>");
          out.print("<h1>Trash</h1>");
          String msg=(String)request.getAttribute("msg");
          if(msg!=null){
             out.print(""+msg+"");
         try{
             Connection con=ConProvider.getConnection();
             PreparedStatement ps=con.prepareStatement("select * from compa
ny_mailer_message where receiver=? OR sender=? and trash=? order by id desc");
             ps.setString(1,email);
             ps.setString(2,email);
             ps.setString(3,"yes");
             ResultSet rs=ps.executeQuery();
             out.print("");
             out.print("
color:grey;color:white'>SenderSubject");
             while(rs.next()){
                .getString("subject")+"");
             out.print("");
             con.close();
          }catch(Exception e){out.print(e);}
      request.getRequestDispatcher("footer.html").include(request, response)
      out.close();
```

Viewmailservlet.java:

```
import java.io.*;
import java.sql.*;
import javax.servlet.*;
```

```
import javax.servlet.http.*;
public class viewmailservlet extends HttpServlet {
    protected void doGet(HttpServletRequest request, HttpServletResponse respo
nse) throws ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out=response.getWriter();
        request.getRequestDispatcher("header.html").include(request, response)
        request.getRequestDispatcher("link.html").include(request, response);
        HttpSession session=request.getSession(false);
        if(session==null){
            response.sendRedirect("index.html");
        }else{
            String email=(String)session.getAttribute("email");
            out.print("<span style='float:right'>Hi, "+email+"</span>");
            int id=Integer.parseInt(request.getParameter("id"));
            try{
                Connection con=ConProvider.getConnection();
                PreparedStatement ps=con.prepareStatement("select * from compa
ny_mailer_message where id=?");
                ps.setInt(1,id);
                ResultSet rs=ps.executeQuery();
                if(rs.next()){
                    out.print("<h1>"+rs.getString("subject")+"</h1><hr/>");
                    out.print("<b>Message:</b><br/> "+rs.getString("message
")+" <br/> <b>By: "+rs.getString("sender")+"</b>");
                    out.print("<a href='DeleteMailServlet?id="+rs.getString</pre>
(1)+"'>Delete Mail</a>");
                con.close();
            }catch(Exception e){out.print(e);}
        request.getRequestDispatcher("footer.html").include(request, response)
        out.close();
```

Composemain.java:

```
import java.sql.*;
public class ComposeMain {
    public static int save(String sender, String receiver, String subject, String
message){
        int status=0;
        try{
            Connection con = ConProvider.getConnection();
            PreparedStatement ps=con.prepareStatement("insert into company_mai
ler_message(sender, receiver, subject, message, trash, messagedate) values(?,?,?,?,
?,?)");
            ps.setString(1,sender);
            ps.setString(2,receiver);
            ps.setString(3,subject);
            ps.setString(4,message);
            ps.setString(5,"no");
            ps.setDate(6,formatter.getCurrentDate());
            status = ps.executeUpdate();
        }catch(Exception e){System.out.println(e);}
        return status;
```

Composeservlet.java:

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
@WebServlet("/composeservlet");

public class ComposeServlet extends HttpServlet{
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException{
    response.setContentType("text/html");
    PrintWriter out = response.getWriter();
    request.getRequestDispatcher("header.html").include(request,response);
    request.getRequestDispatcher("link.html").include(request,response);

    HttpSession session=request.getSession(false);
    if(session==null){
        response.sendRedirect("index.html");
    }else{
```

```
String email = (String)session.getAttribute("email");
    out.print("<span style='float:right'>Hi, "+email+"</span>");

String msg=(String)request.getAttribute("msg");
    if(msg!=null){
        out.print(""+msg+"");
    }
    request.getRequestDispatcher("composeform.html").include(request,response);
    }

request.getRequestDispatcher("footer.html").include(request,response);
    out.close();
}
```

Composeservletprocess.java:

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
@WebServlet("/composeservletprocess")
public class ComposeServletProcess extends HttpServlet {
   @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse) thro
ws ServletException, IOException{
        response.setContentType("text/html");
        PrintWriter out= response.getWriter();
        request.getRequestDispatcher("header.html").include(request,response);
        String receiver = request.getParameter("to");
        String subject = request.getParameter("subject");
        String message = request.getParameter("message");
        message = message.replaceAll("\n","<br/>");
        String email = (String)request.getSession(false).getAttribute("email")
        int i = ComposeMain.save(email, receiver, subject, message);
        if(i>0){
            request.setAttribute("msg","message successfully sent");
            request.getRequestDispatcher("ComposeServlet").forward(request,res
ponse);
```

```
}
    request.getRequestDispatcher("footer.html").include(request,response);
    out.close();
}
```

ConProvider.java:

```
import java.sql.*;
public class ConProvider {
    public static Connection getConnection(){
        Connection con = null;
        try{
            Class.forName("com.mysql.cj.jdbc.Driver");
            con = DriverManager.getConnection("jdbc:mysql://localhost/dbname?u
seUnicode=true&useJDBCCompliantTimezoneShift=true&useLegacyDatetimeCode=false&serverTimezone=UTC","root", "");
    }catch(Exception e){System.out.println(e);}
    return con;
}
```

MySQL code:

User table:

```
CREATE TABLE "USER"
       "ID" NUMBER,
       "NAME" VARCHAR2(4000),
       "EMAIL" VARCHAR2(4000)
       "PASSWORD" VARCHAR2(4000),
       "GENDER" VARCHAR2(4000),
       "DOB" DATE,
       "ADDRESSLINE" VARCHAR2(4000),
       "CITY" VARCHAR2(4000),
       "STATE" VARCHAR2(4000)
       "COUNTRY" VARCHAR2(4000),
       "CONTACT" VARCHAR2(4000),
       "REGISTEREDDATE" DATE,
       "AUTHORIZED" VARCHAR2(4000),
       CONSTRAINT "USER" PRIMARY KEY ("ID") ENABLE
   )
```

Message table:

```
CREATE TABLE "MESSAGE"

( "ID" NUMBER,
    "SENDER" VARCHAR2(4000),
    "RECEIVER" VARCHAR2(4000),
    "SUBJECT" VARCHAR2(4000),
    "MESSAGE" VARCHAR2(4000),
    "TRASH" VARCHAR2(4000),
    "MESSAGEDATE" DATE,
    CONSTRAINT "USER" PRIMARY KEY ("ID") ENABLE
```

HTML Codes:

Composeform.html:

Footer.html:

```
©Copyright 2020-2021. All rights reserved!
</body>
</html>
```

Header.html:

```
<!DOCTYPE html>
<html>
<head>
<title>SRET MAILER</title>
```

```
<style type="text/css">
.inputform{float:left;
width:400px;border:1px solid pink;border-radius:10px;padding:10px;
}
.inputform table tr td input,textarea,select{width:200px;}
#gender1,#gender2{width:10px;}
#submit{margin-left:100px;width:100px;}
#reset{width:100px;}
.design{background-color:red;color:white;padding-left:100px;}
</style>
</head>
<body>

<
```

Index.html:

```
<!DOCTYPE html>
<html>
<head>
<title>index page</title>
<style type="text/css">
.inputform{float:left;
width:400px;border:3px solid aquamarine;border-radius:10px;padding:40px;
.background{
    background-color:lightblue;
.inputform table tr td input,textarea,select{width:200px;}
#gender1,#gender2{width:10px;}
#submit{margin-left:100px;width:100px;}
#reset{width:100px;}
.design{background-color:aquamarine;color:black;padding-left:100px;}
</style>
</head>
<body class="background">
<h2 style="text-align:center">SRET MAILER</h2>
<h3 style="background-color:aquamarine;color:aquamarine;">c</h3>
<div class="inputform">
<h2 class="design">Registration Form</h2>
```

```
<form action="registerservlet" method="post">
Name:<input type="text" name="name"/>
Email:<input type="text" name="email"/>
Password:<input type="password" name="password"/>
Gender:<input id="gender1" type="radio" name="gender" value="</pre>
male"/>Male
<input type="radio" id="gender2" name="gender" value="female"/>Female
Date Of Birth:<input type="date" name="dob"/>
AddressLine:<textarea name="addressLine" rows="5" cols="15"><</pre>
/textarea>
City:<input type="text" name="city"/>
State:<input type="text" name="state"/>
Country:<select name="country">
<option>Select-Country:</option>
<option>India
<option>Pakistan</option>
<option>China</option>
<option>Bhutan
<option>USA</option>
<option>France
<option>Other</option>
</select>
Contact:<input type="text" name="contact"/>
<input id="submit" type="submit" value="register"/>
<input id="reset" type="reset" value="clear"/>
</form>
</div>
<div class="inputform" style="float:right;">
<h2 class="design">Login Form</h2>
<form action="loginservlet" method="post">
Email:<input type="email" name="email"/>
Password:<input type="password" name="password"/>
<input id="submit" type="submit" value="login"/>
</form>
</div>
</body>
</html>
```

Link .html:

```
<a href="index.html">Home</a> |
<a href="inboxservlet">Inbox</a> |
<a href="ComposeServlet">Compose Mail</a> |
<a href="sendservlet">Sent Mail</a> |
<a href="trashservlet">Trash</a> |
<a href="logoutservlet">Logout</a> </hr/></hr/>
```

Login.html:

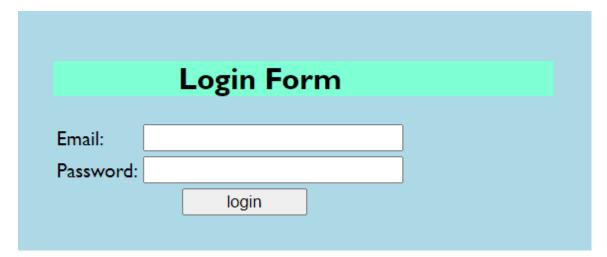
Screenshots:

Compose form:

SRET PERSONNEL MAILER

То:	Кр
Subject:	Hi this is check message
Message:	
Message	is passed successfully.
Send Ma	il

Login form:



Registration Form:



User Table:

ID	NAME	EMAIL	PASSWORD	GENDER	DOB	ADDRESSLINE	CITY	STATE	COUNTRY	CONTACT	REGISTERDATE	AUTHORISED
1	Shriram	dinothunderkp@gmail.com	123456	Male	2001-08-18	14/12, Ramalinganar street	Chennai	Tamil nadu	India	6383300389	2020-12-03	yes

Message Table:

ID	SENDER	RECEIVER	SUBJECT	MESSAGE	TRASH	MESSAGEDATE
- 1	SHRIRAM	KP	HITHIS IS CHECK MESSAGE	MESSAGE IS PASSED SUCCESSFULLY	NO	2020-12-03

References:

- 1. https://www.tutorialspoint.com/jdbc/index.htm
- 2. https://www.splessons.com/lesson/servlet-with-jdbc/
- 3. https://www.techonthenet.com/oracle/index.php
- 4. https://www.w3schools.com/css/
- 5. https://dev.mysql.com/doc/connector-j/5.1/en/connector-j-reference-using-ssl.html
- 6. https://www.w3schools.com/html/
- 7. https://openjdk.java.net/