**APPENDIX 1**

# SAMPLE CODE

**Login** import java.io.IOException; import java.io.PrintWriter; import java.sql.\*; import java.sql.DriverManager; import java.sql.ResultSet; import java.sql.SQLException; import java.util.logging.Level; import java.util.logging.Logger; import javax.servlet.RequestDispatcher; import javax.servlet.ServletException; import javax.servlet.http.HttpServlet; import javax.servlet.http.HttpServletRequest; import javax.servlet.http.HttpServletResponse; import javax.servlet.http.HttpSession; public class login extends HttpServlet { \* @param request servlet request

* @param response servlet response
* @throws ServletException if a servlet-specific error occurs
* @throws IOException if an I/O error occurs

\*/

protected void processRequest(HttpServletRequest request,

HttpServletResponse response) throws ServletException, IOException { response.setContentType("text/html;charset=UTF-8"); try (PrintWriter out = response.getWriter()) {

/\* TODO output your page here. You may use following sample code. \*/ out.println("<!DOCTYPE html>"); out.println("<html>"); out.println("<head>"); out.println("<title>Servlet login</title>"); out.println("</head>");

out.println("<body>"); out.println("<h1>Servlet login at " + request.getContextPath() + "</h1>"); out.println("</body>"); out.println("</html>");

}

// <editor-fold defaultstate="collapsed" desc="HttpServlet methods. Click on the

+ sign on the left to edit the code.">

/\*\*

* Handles the HTTP <code>GET</code> method.

\*

* @param request servlet request
* @param response servlet response
* @throws ServletException if a servlet-specific error occurs
* @throws IOException if an I/O error occurs

\*/

@Override

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

processRequest(request, response);

}

@Override

protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

String accountno=request.getParameter("Customer Id");

String pass=request.getParameter("pass");

String user=request.getParameter("user");

String pass1=request.getParameter("pass"); PrintWriter out = response.getWriter(); boolean f = false;

//String get=request.getParameter("commit");

try {

Class.forName("com.mysql.jdbc.Driver");

Connection

con=DriverManager.getConnection("jdbc:mysql://localhost/bank","root","admin");

Statement st=con.createStatement();

ResultSet rs1=st.executeQuery("select \* from registration where accountno='"+accountno+"' and password='"+pass+"'");

if(rs1.next())

{

HttpSession hs=request.getSession(true); hs.setAttribute("accountno", accountno);

// RequestDispatcher

rd=request.getRequestDispatcher("loginwait.jsp");

RequestDispatcher

rd=request.getRequestDispatcher("login\_choosepoint.jsp");

rd.forward(request, response);

}else{

//

// else{

// ResultSet rs=st.executeQuery("select \* from user where accountno='"+accountno+"' and password='"+pass+"'");

// if(accountno.equalsIgnoreCase("1234561111")&& pass.equals("admin"))

// {

// RequestDispatcher

rd=request.getRequestDispatcher("a\_home.jsp");

// rd.forward(request, response);

// }

// if(rs.next())

// {

//// String accountno=rs.getString(10);

// String balance=rs.getString("balance");

// HttpSession hs=request.getSession();

// hs.setAttribute("accountno", accountno);

// hs.setAttribute("balance", balance);

// RequestDispatcher rd=request.getRequestDispatcher("home.jsp");

// rd.forward(request, response);

// }

// else

// {

// RequestDispatcher rd=request.getRequestDispatcher("login.jsp");

// rd.include(request, response);

// }

//

//// }String account=rs.getString("accountno");

//// HttpSession hs=request.getSession();

//// hs.setAttribute("account", account);

// }

// }

String aname=request.getParameter("Customer Id"); String apass=request.getParameter("pass"); if(aname.equals("admin") && apass.equals("admin")){

RequestDispatcher

rd=request.getRequestDispatcher("managerhome.jsp");

rd.forward(request, response);

}else{ f = true;

}

}

if(f){

RequestDispatcher rd=request.getRequestDispatcher("/login.jsp?err=fail");

rd.forward(request, response);

}

catch (SQLException | ClassNotFoundException ex) {

Logger.getLogger(login.class.getName()).log(Level.SEVERE, null, ex);

}

HttpSession hs=request.getSession(); // hs.setAttribute(user, "user"); hs.setAttribute(pass, "pass");

}

/\*\*

* Returns a short description of the servlet.

\*

* @return a String containing servlet description

\*/

@Override public String getServletInfo() { return "Short description";

}// </editor-fold>

}

**Choose point** import java.io.IOException; import java.io.OutputStream; import java.io.PrintWriter; import static java.lang.System.out; import java.sql.Connection; import java.sql.DriverManager; import java.sql.ResultSet; import java.sql.Statement;

import javax.servlet.ServletException; import javax.servlet.http.HttpServlet; import javax.servlet.http.HttpServletRequest; import javax.servlet.http.HttpServletResponse; import javax.servlet.http.HttpSession; public class login\_choosepoint extends HttpServlet {

@Override

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

{ try{

Class.forName("com.mysql.jdbc.Driver");

String url="jdbc:mysql://localhost/bank";

String user="root";

String password="admin";

HttpSession hs=request.getSession();

String accountno=(String)hs.getAttribute("accountno"); hs.setAttribute("accountno",accountno);

System.out.println(accountno);

//String name=(String)request.getAttribute("Name");

// String employee\_id=(String)request.getAttribute("employee\_id");

String sql="select \* from registration where accountno='"+accountno+"'";

// String sql="select \* from user where accountno='"+accountno+"'";

Connection conn=DriverManager.getConnection(url, user, password);

Statement st=conn.createStatement(); ResultSet rs=st.executeQuery(sql);

int i=1;

String cnt=(String)hs.getAttribute("cnt"); if(cnt!=null){ i=Integer.parseInt(cnt);

}

OutputStream img; while(rs.next())

{

// String accountno=rs.getString("accountno"); out.println("<h1>"+accountno+"</h1>"); System.out.println(accountno); out.println("<h1>"); byte barray[]=rs.getBytes("image1"); response.setContentType("image/png"); img=response.getOutputStream(); img.write(barray); byte barray1[]=rs.getBytes("image1"); response.setContentType("image/png"); img=response.getOutputStream();

img.write(barray); out.println("</h1>");

} rs.close(); st.close(); conn.close();

//employee\_details.invalidate();

}catch(Exception ex){

ex.printStackTrace();

}

}

/\*\*

* Handles the HTTP <code>POST</code> method.

\*

* @param request servlet request
* @param response servlet response
* @throws ServletException if a servlet-specific error occurs
* @throws IOException if an I/O error occurs

\*/

/\*\*

* Returns a short description of the servlet.

\*

* @return a String containing servlet description

\*/

@Override public String getServletInfo() { return "Short description";

}// </editor-fold>

}

**Alert message** package newpackage;

import java.util.\*; import javax.mail.\*; import javax.mail.internet.\*; import javax.activation.\*; import java.util.Properties; import javax.mail.Message; import javax.mail.MessagingException; import javax.mail.PasswordAuthentication; import javax.mail.Session; import javax.mail.Transport; import javax.mail.internet.InternetAddress; import javax.mail.internet.MimeMessage;

import java.util.Properties; import javax.mail.Message; import javax.mail.MessagingException; import javax.mail.PasswordAuthentication; import javax.mail.Session; import javax.mail.Transport; import javax.mail.internet.InternetAddress; import javax.mail.internet.MimeMessage;

public class Sendmail { public static void mailsend(String to) { Properties props = new Properties(); props.put("mail.smtp.host", "smtp.gmail.com"); props.put("mail.smtp.socketFactory.port", "465"); props.put("mail.smtp.socketFactory.class", "javax.net.ssl.SSLSocketFactory");

props.put("mail.smtp.auth", "true"); props.put("mail.smtp.port", "465");

Session session = Session.getDefaultInstance(props, new javax.mail.Authenticator() {

protected PasswordAuthentication getPasswordAuthentication() {

return new

PasswordAuthentication("vishaaleeo197@gmail.com","buijuvok");

}

});

try {

Message message = new MimeMessage(session);

message.setFrom(new

InternetAddress("vishaaleeo197@gmail.com"));

message.setRecipients(Message.RecipientType.TO,

InternetAddress.parse(to)); message.setSubject("Alert"); message.setText("Someone tried to login your account" ); Transport.send(message);

System.out.println("Done");

} catch (MessagingException e) {

throw new RuntimeException(e);

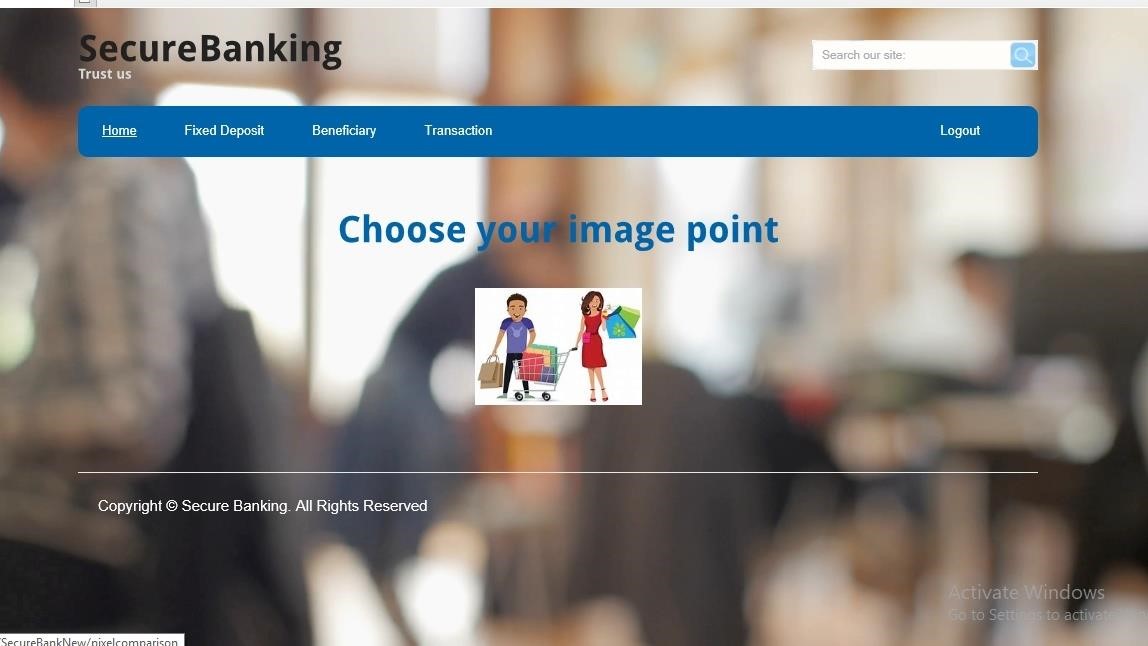
}

**APPENDIX 2**

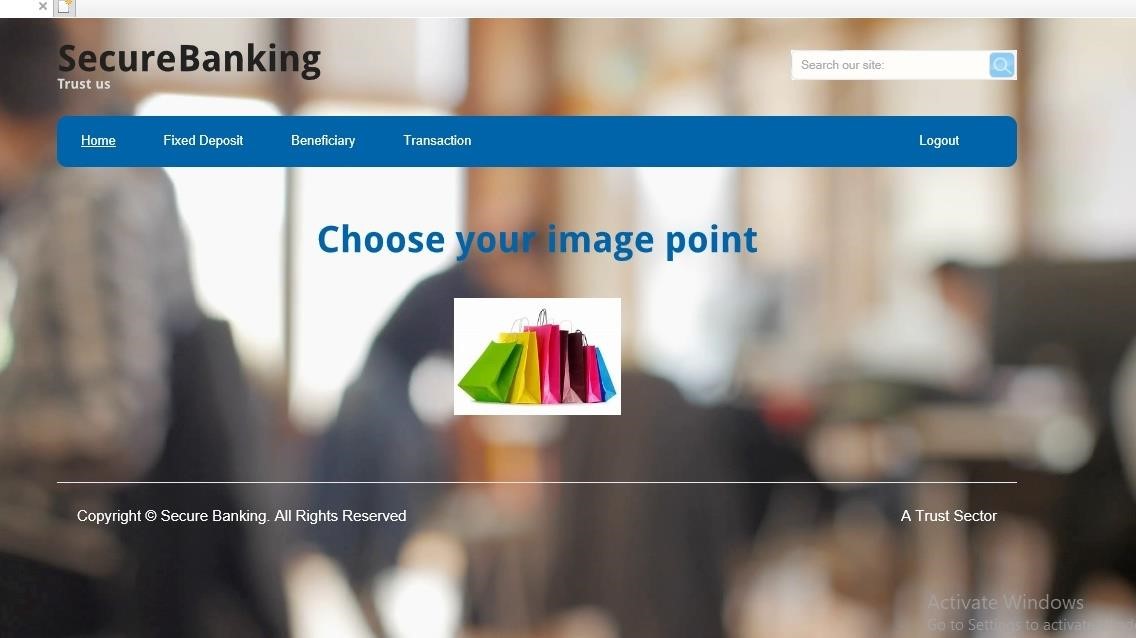
# SCREENSHOTS



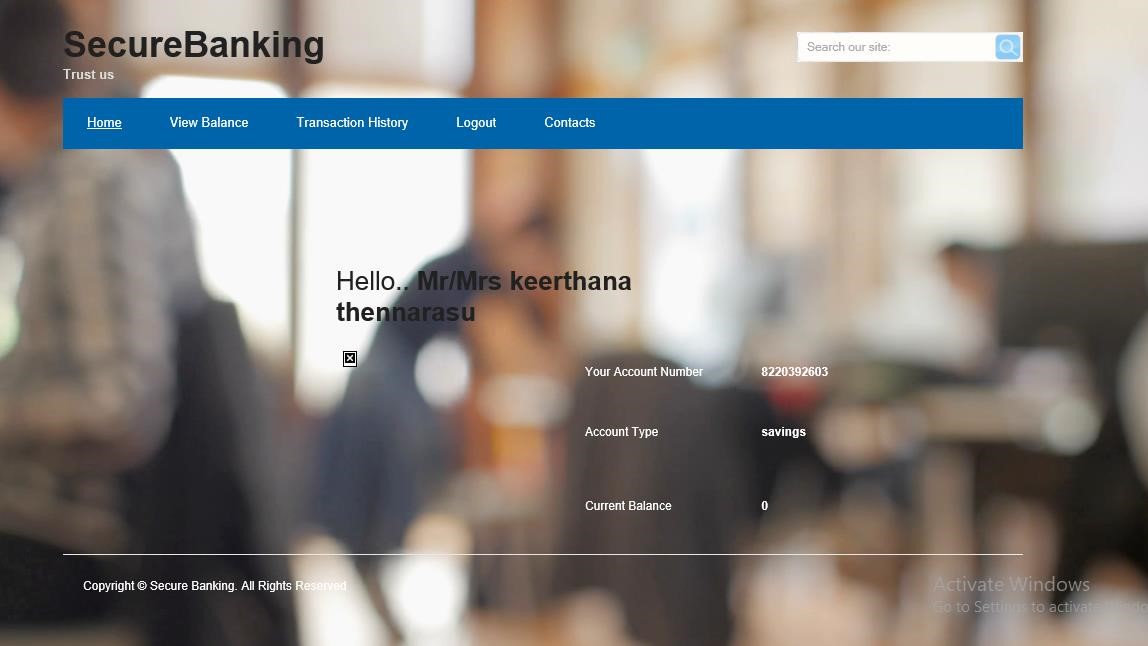
# Login page



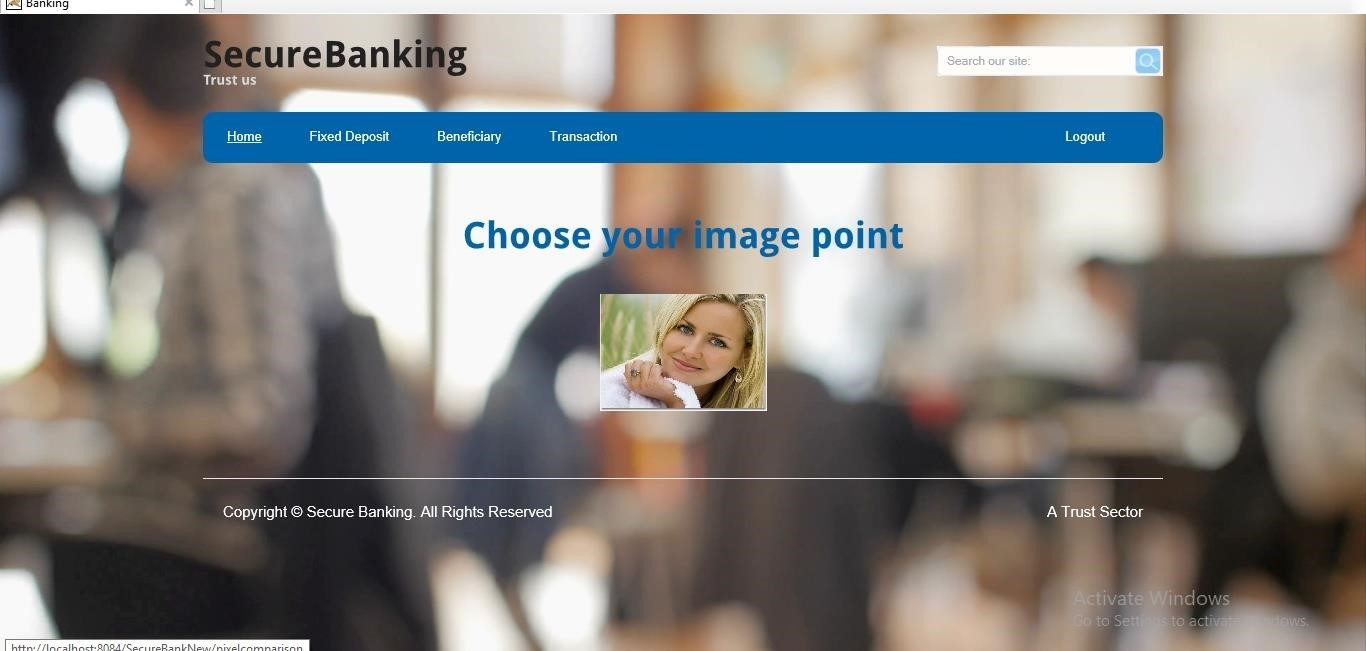
# Pixel selection in first image



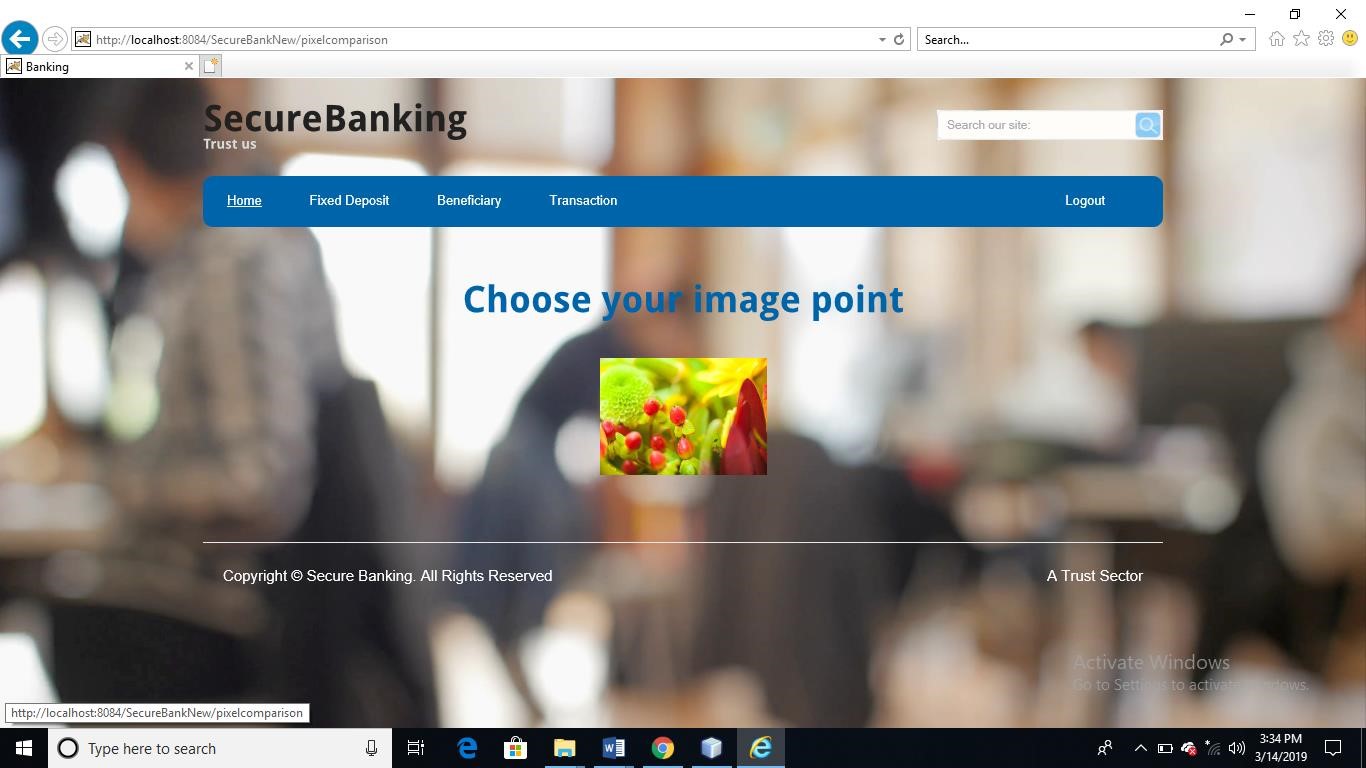
# Pixel selection in second image



# Home page



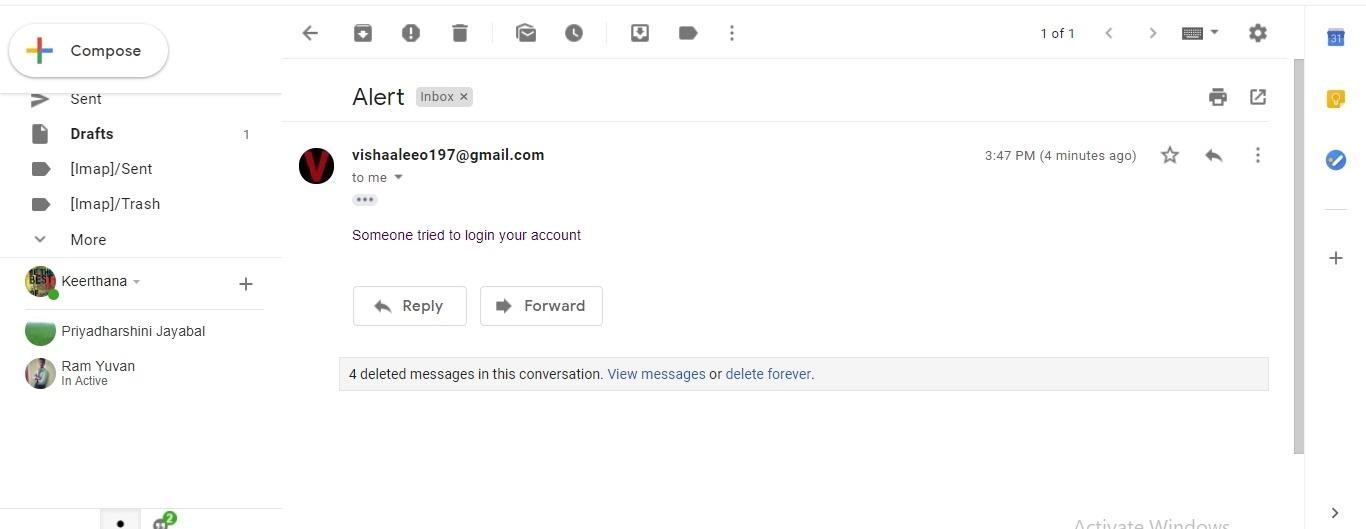
# Random image-1 generation



# Random image-2 generation



# Random image-3 generation



**Alert message to user**

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