

A PROJECT REPORT

ON

STUDENTS ATTENDANCE MANAGEMENT SYSTEM

DONE BY

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ABSTRACT

Student attendance management system deals with the maintenance of the student's attendance details. It is generates the attendance of the student on basis of presence in class. It is maintained on the daily basis of their attendance. the staffs will be provided with the separate username & password to make the student's status.

The staffs handling the particular subjects responsible to make the attendance for all students. Only if the student present on that particular period, the attendance will be calculated. The students attendance reports based on weekly and consolidate will be generated..

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CHAPTER - 1

INTRODUCTION TO THE STUDY

Introduction:

"Attendance Management System" is software developed for maintaining the attendance of the student on the daily basis in the collage. Here the staffs, who are handling the subjects, will be responsible to mark the attendance of the students. Each staff will be given with a separate username and password based on the subject they handle. An accurate report based on the student attendance is generated here. This system will also help in evaluating attendance eligibility criteria of a student. Report of the student's attendance on weekly and monthly basis is generated.

CHAPTER 2

SYSTEM ANALYSIS

2.1 INTRODUCTION

Analysis can be defined as breaking up of any whole so as to find out their nature, function etc. It defines design as to make preliminary sketches of; to sketch a pattern or outline for plan. To plan and carry out especially by artistic arrangement or in a skillful wall. System analysis and design can be characterized as a set of techniques and processes, a community of interests, a culture and an intellectual orientation.

The various tasks in the system analysis include the following.

- > Understanding application.
- > Planning.
- > Scheduling.
- Developing candidate solution.
- Performing trade studies.
- > Performing cost benefit analysis.
- Recommending alternative solutions.
- > Selling of the system.
- > Supervising, installing and maintaining the system.

This system manages to the analysis of the report creation and develops manual entry of the student attendance. First design the students entry form, staff allocation and time table allocation forms. This project will helps the attendance system for the department calculate percentage and reports for eligibility criteria of examination. The application attendance entry system will provide flexible report for all students.

2.2 EXISTING SYSTEM

The Existing system is a manual entry for the students. Here the attendance will be carried out in the hand written registers. It will be a tedious job to maintain the record for the user. The human effort is more here. The retrieval of the information is not as easy as the records are maintained in the hand written registers.

This application requires correct feed on input into the respective field. Suppose the wrong inputs are entered, the application resist to work. so the user find it difficult to use.

2.3 PROPOSED SYSTEM:

To overcome the drawbacks of the existing system, the proposed system has been evolved. This project aims to reduce the paper work and saving time to generate accurate results from the student's attendance. The system provides with the best user interface. The efficient reports can be generated by using this proposed system.

2.3.1 Advantages of Proposed System

- It is trouble-free to use.
- ➤ It is a relatively fast approach to enter attendance
- ➤ Is highly reliable, approximate result from user
- ➤ Best user Interface
- > Efficient reports

3. FEASIBILITY STUDY:

Feasibility analysis begins once the goals are defined. It starts by generating broad possible solutions, which are possible to give an indication of what the new system should look lime. This is where creativity and imagination are used. Analysts must think up new ways of doing things- generate new ideas. There is no need to go into the detailed system operation yet. The solution should provide enough information to make reasonable estimates about project cost and give users an indication of how the new system will fit into the organization. It is important not to exert considerable effort at this stage only to find out that the project is not worthwhile or that there is a need significantly change the original goal.

Feasibility of a new system means ensuring that the new system, which we are going to implement, is efficient and affordable. There are various types of feasibility to be determined. They are,

3.1 Economically Feasibility:

Development of this application is highly economically feasible. The only thing to be done is making an environment with an effective supervision.

It is cost effective in the sense that has eliminated the paper work completely. The system is also time effective because the calculations are automated which are made at the end of the month or as per the user requirement.

3.2 Technical feasibility:

The technical requirement for the system is economic and it does not use any other additional Hardware and software. Technical evaluation must also assess whether the existing systems can be upgraded to use the new technology and whether the organization has the expertise to use it.

Install all upgrades framework into the .Net package supported widows based application. this application depends on Microsoft office and intranet service ,database. Enter their attendance and generate report to excel sheet.

3.3 Operational Feasibility:

The system working is quite easy to use and learn due to its simple but attractive interface. User requires no special training for operating the system. Technical performance include issues such as determining whether the system can provide the right information for the Department personnel student details, and whether the system can be organized so that it always delivers this information at the right place and on time using intranet services.

Acceptance revolves around the current system and its personnel.

CHAPTER 3 SYSTEM SPECIFICATION

3.1 HARDWARE REQUIREMENTS (Minimum Requirement)

▶ Minimum RAM:-1GB

➤ Hard Disk:-128 GB

➤ **Processor:-**Intel Pentium 4(1.50 GHZ) or above

3.2SOFTWARE REQUIREMENTS (minimum Requirement)

> Operating system : Windows

Front_End: jsp, javascript, css

> Front-End Language : Visual basic

Back-End: My Sql

CHAPTER 4 SOFTWARE DESCRIPTION

4.1 PACKAGE - VISUAL STUDIO 2010

Microsoft Visual Studio is an integrated development environment (IDE) from Microsoft. It is used to develop console and graphical user interface applications along with Windows Forms or WPF applications, web sites, web applications, and web services in both native codetogether with managed code for all platforms supported by Microsoft Windows, Windows Mobile, Windows CE, .NET Framework, .NET Compact Framework and Microsoft Silver light.

Visual Studio supports different programming languages by means of language services, which allow the code editor and debugger to support (to varying degrees) nearly any programming language, provided a language-specific service exists.

Visual Studio also includes a web-site editor and designer that allows web pages to be authored by dragging and dropping widgets. It is used for developing VB.NET application efficiently to get input and output design easiest one. It will be run at windows application based services provide the user.

4.Jsp,servlet

JSP technology is used to create web application just like Servlet technology. It can be thought of as an extension to Servlet because it provides more functionality than servlet such as expression language, JSTL, etc.

A JSP page consists of HTML tags and JSP tags. The JSP pages are easier to maintain than Servlet because we can separate designing and development. It provides some additional features such as Expression Language, Custom Tags, etc.

Advantages of JSP over Servlet

There are many advantages of JSP over the Servlet. They are as follows:

1) Extension to Servlet

JSP technology is the extension to Servlet technology. We can use all the features of the Servlet in JSP. In addition to, we can use implicit objects, predefined tags, expression language and Custom tags in JSP, that makes JSP development easy.

2) Easy to maintain

JSP can be easily managed because we can easily separate our business logic with presentation logic. In Servlet technology, we mix our business logic with the presentation logic.

3) Fast Development: No need to recompile and redeploy

If JSP page is modified, we don't need to recompile and redeploy the project. The Servlet code needs to be updated and recompiled if we have to change the look and feel of the application.

4) Less code than Servlet

In JSP, we can use many tags such as action tags, JSTL, custom tags, etc. that reduces the code. Moreover, we can use EL, implicit objects, etc.

My Sql:

MySQL tutorial provides basic and advanced concepts of MySQL. Our MySQL tutorial is designed for beginners and professionals.

MySQL is a relational database management system based on the Structured Query Language, which is the popular language for accessing and managing the records in the database. MySQL is open-source and free software under the GNU license. It is supported by **Oracle Company**.

Our MySQL tutorial includes all topics of MySQL database that provides for how to manage database and to manipulate data with the help of various SQL queries. These queries are: insert records, update records, delete records, select records, create tables, drop tables, etc. There are also given MySQL interview questions to help you better understand the MySQL database.

Css, javascript:

CSS tutorial or CSS 3 tutorial provides basic and advanced concepts of CSS technology. Our CSS tutorial is developed for beginners and professionals. The major points of CSS are given below:

- CSS stands for Cascading Style Sheet.
- CSS is used to design HTML tags.
- CSS is a widely used language on the web.
- HTML, CSS and JavaScript are used for web designing. It helps the web designers to apply style on HTML tags.
- JavaScript is used to create client-side dynamic pages.
- JavaScript is an object-based scripting language which is lightweight and cross-platform.
- JavaScript is not a compiled language, but it is a translated language. The JavaScript Translator (embedded in the browser) is responsible for translating the JavaScript code for the web browser.

CHAPTER 5 PROJECT DESCRIPTION

5.1PROBLEM DEFINITION:

This system developed will reduce the manual work and avoid redundant data. By maintaining the attendance manually, then efficient reports cannot be generated. The system can generate efficient weekly, consolidate report based on the attendance. As the attendances are maintained in registers it has been a tough task for admin and staff to maintain for long time. Instead the software can keep long and retrieve the information when needed.

5.2 PROJECT OVERVIEW

Attendance Management System basically has two main modules for proper functioning

- Admin module is has rights for creating any new entry of faculty and student details.
- ➤ User has a rights of making daily attendance, generating report. Attendance report can be taken by given details of student details, date, class.

5.3 MODULE DESCRIPTION

The system should be designed in such a way that only authorized people should be allowed to access some particular modules. The records should be modified by only administrators and no one else. The user should always be in control of the application and not the vice versa.

The user interface should be consistent so that the user can handle the application with ease and speed. The application should be visually, conceptually clear.

5.3.1 ADMINISTRATOR MODULE: □ Student Details:
In this module deals with the allocation of roll no and personal details for new batch. It will generate of personal details of student and academic details of the students with the photos.
➤ It helps to allot the subject and the subject code to the particular staffs.
> It provides the facility to have a user name and password to the staffs.
☐ Time table details:
It will retrieve the subject information from the subject database and assign time table to the staffs.
➤ It will help the admin, staff to make the entry of attendance based of the subject and period allotted to the respective staff.
☐ Attendance details:
> It will be makes to the attendance database all students. Entered attendance to stored in the database subject ,period wise into the particular date.
➤ It will help s to the get report of weekly and consolidate of the attendance.

Report details: Report can be taken by daily, weekly and consolidate: ➤ weekly report get all hour details of attendance starting date to ending date and display the status
> Consolidate report get all student attendance details starting date to ending date status help for the eligibility criteria of the student to attend the examination.
5.3.2 STAFFS MODULE: □ Attendance details:
> It assists the staff to mark attendance to the students for their subject. This will authenticate the staff before making the entry.
□ Report details:
1. weekly report get particular hour details of attendance from starting date to ending date and display the status .
2. consolidate report get all student attendance details from starting date to ending date status help for the eligibility criteria of the student to attend the examination
5.4 SYSTEM FLOW DIAGRAM:
13

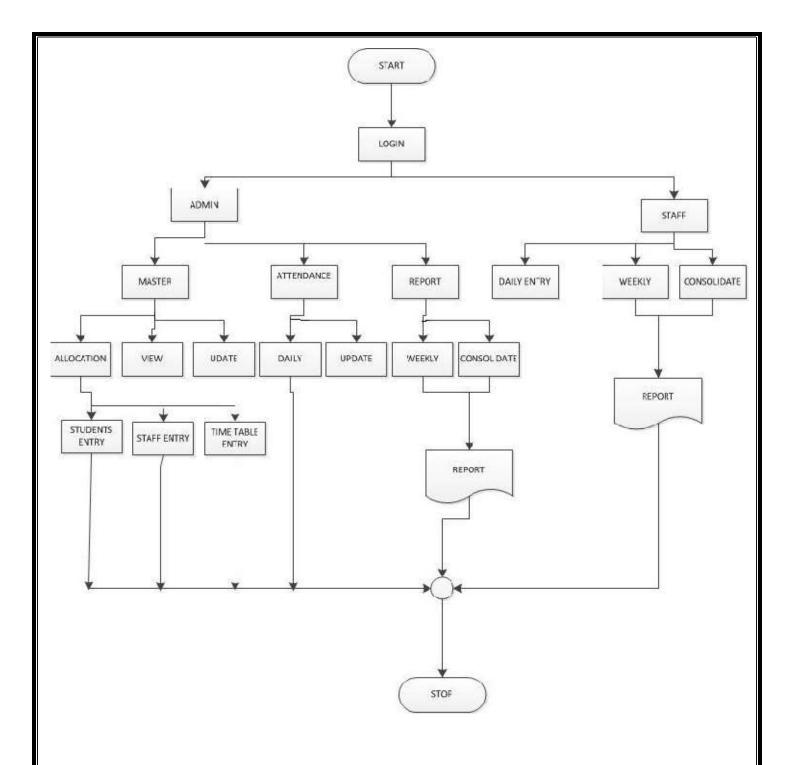
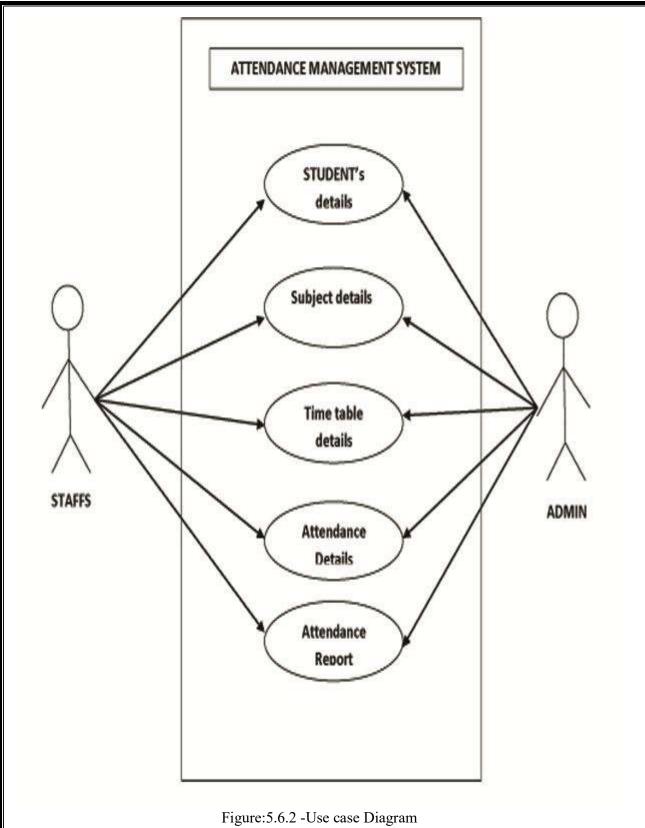


Figure 5.4-System Flow Diagram

5.6.2 Use case Diagram:



CHAPTER 6 SYSTEM TESTING

6.1 Introduction

Once source code has been generated, software must be tested to uncover (and correct) as many errors as possible before delivery to customer. Our goal is to design a series of test cases that have a high likelihood of finding errors. To uncover the errors software techniques are used. These techniques provide systematic guidance for designing test that

- (1) Exercise the internal logic of software components, and
- (2) Exercise the input and output domains of the program to uncover errors In program function, behavior and performance.
- **6.1.1 Steps:** Software is tested from two different perspectives:
- (1) Internal program logic is exercised using —White box | test case design Techniques.
- (2) Software requirements are exercised using —block box | test case Design techniques.

In both cases, the intent is to find the maximum number of errors with the Minimum amount of effort and time.

6.2 Testing Methodologies:

A strategy for software testing must accommodate low-level tests that are necessary to verify that a small source code segment has been correctly implemented as well as high-level tests that validate major system functions against customer requirements. A strategy must provide guidance for the practitioner and a set of milestones for the manager. Because the steps of the test strategy occur at a time when deadline pressure begins to rise, progress must be measurable and problems must surface as early as possible. Following testing techniques are well known and the same strategy is adopted during this project testing.

6.2.1 Unit testing:

Unit testing focuses verification effort on the smallest unit of software design- the software component or module. The unit test is white-box oriented. The unit testing implemented in every module of student attendance management System. by giving correct manual input to the system ,the datas are stored in database and retrieved. If you want required module to access input or get the output from the End user. any error will accrued the time will provide handler to show what type of error will accrued .

6.2.2 System testing:

System testing is actually a series of different tests whose primary purpose is to fully exercise the computer-based system. Below we have described the two types of testing which have been taken for this project. it is to check all modules worked on input basis .if you want change any values or inputs will change all information. so specified input is must.

6.2.4 Performance Testing

Performance testing is designed to test the run-time performance of software within the context of an integrated system. Performance testing occurs throughout all steps in the testing process. Even at the unit level, the performance of an individual module may be assessed as white-box tests are conducted.

This project reduce attendance table, codes. it will generate report fast.no have extra time or waiting of results entered correct data will show result few millisecond. just used only low memory of our system. Automatically do not getting access at another software. Get user permission and access to other applications.

CHAPTER 7 SYSTEM IMPLEMENTATION

7.1 Purpose

System implementation is the important stage of project when the theoretical design is tuned into practical system. The main stages in the implementation are as follows:

- > Planning
- > Training
- > System testing and
- Changeover Planning

Planning is the first task in the system implementation. At the time of implementation of any system people from different departments and system analysis involve. They are confirmed to practical problem of controlling various activities of people outside their own data processing departments.

The line managers controlled through an implementation coordinating committee. The committee considers ideas, problems and complaints of user department, it must also consider:

- The implication of system environment
- > Self selection and allocation for implementation tasks
- Consultation with unions and resources available
- > Standby facilities and channels of communication

Student Attendance management system will implement student details, staff handle subjects details, separate login details, time table details. It will used to entered subject wise attendance. This application elaborate attendance table generate weekly, consolidate report provide to the End user. Mostly this application will calculate date wise attendance. To select starting date to end date generate reports at the time of activities.

7.2 SYSTEM MAINTENANCE Software maintenance is far more than finding mistakes. Provision must be made for environment changes, which may affect either the computer, or other parts of the computer based systems. Such activity is normally called maintenance. It includes both the improvement of the system functions and the corrections of faults, which
arise during the operation of a new system. It may involve the continuing involvement of a large proportion of computer department recourses. The main task may be to adapt existing systems in a changing environment. Back up for the entire database files are taken and stored in storage devices like flash drives, pen drives and disks so that it is possible to restore the system at the ordinate. If there is a breakdown or college, then the system gives
so that it is possible to restore the system at the earliest. If there is a breakdown or collapse, then the system gives provision to restore database files. Storing data in a separate secondary device leads to an effective and efficient maintains of the system. The nominated person has sufficient knowledge of the organization's computer passed based system to be able to judge the relevance of each proposed change.

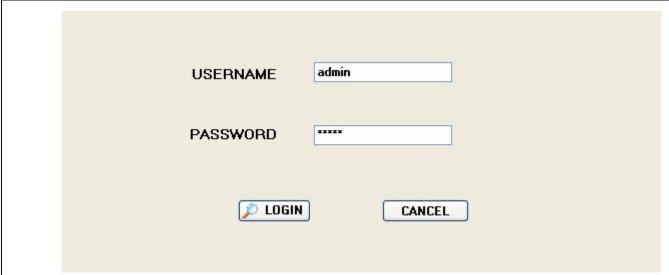
CHAPTER 8 CONCLUSION AND FUTURE ENHANCEMENT

8.1 Conclusion

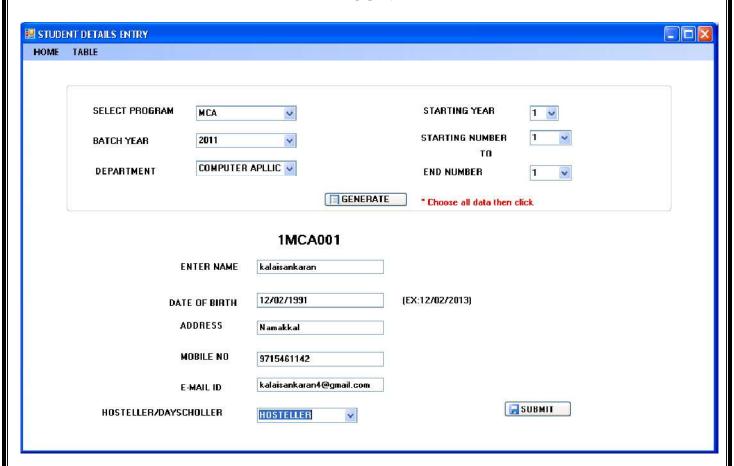
To conclude, Project Data Grid works like a component which can access all the databases and picks up different functions. It overcomes the many limitations incorporated in the attendance.

- Easy implementation Environment
- ➤ Generate report Flexibly

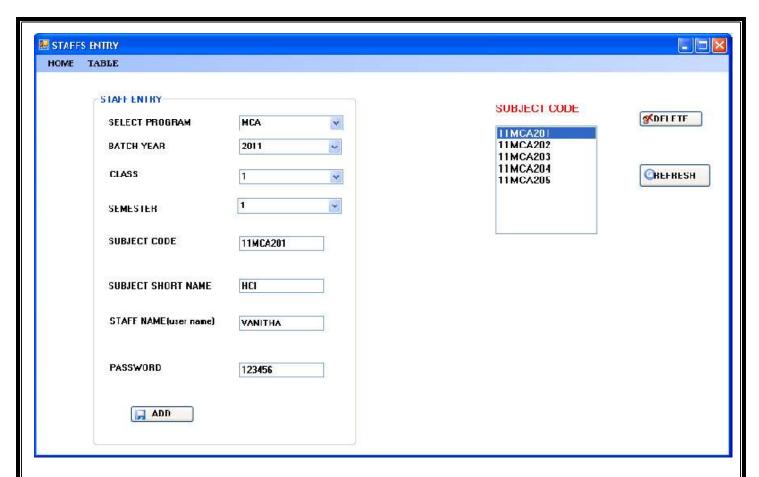
Generate report Prexitory
 8.2 Scope for future development The project has a very vast scope in future. The project can be implemented on intranet in future. Project can be updated in near future as and when requirement for the same arises, as it is very flexible in terms of expansion. With the proposed software of database Space Manager ready and fully functional the client is now able to manage and hence run the entire work in a much better, accurate and error free manner. The following are the future scope for the project. Discontinue of particular student eliminate potential attendance.
Bar code Reader based attendance system.
Individual Attendance system With photo using Student login.
APPENDIX-I SNAPSHOTS:



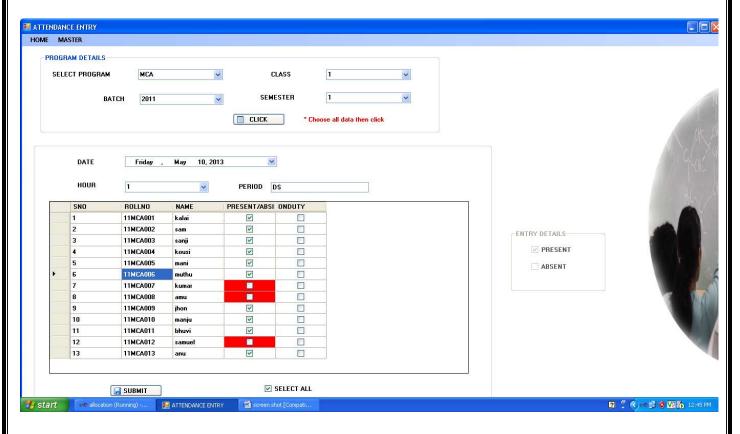
LOGIN



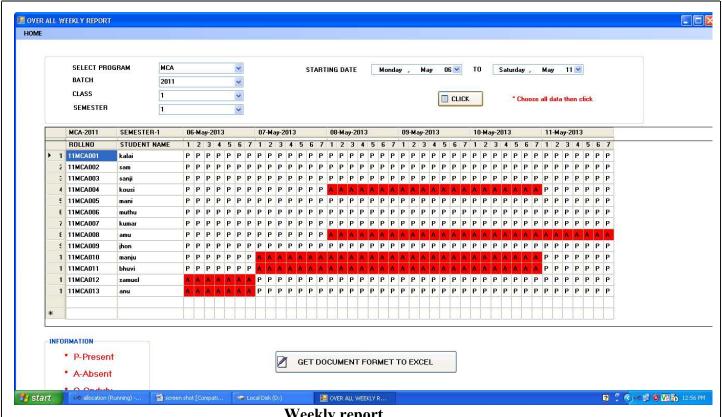
Student Details



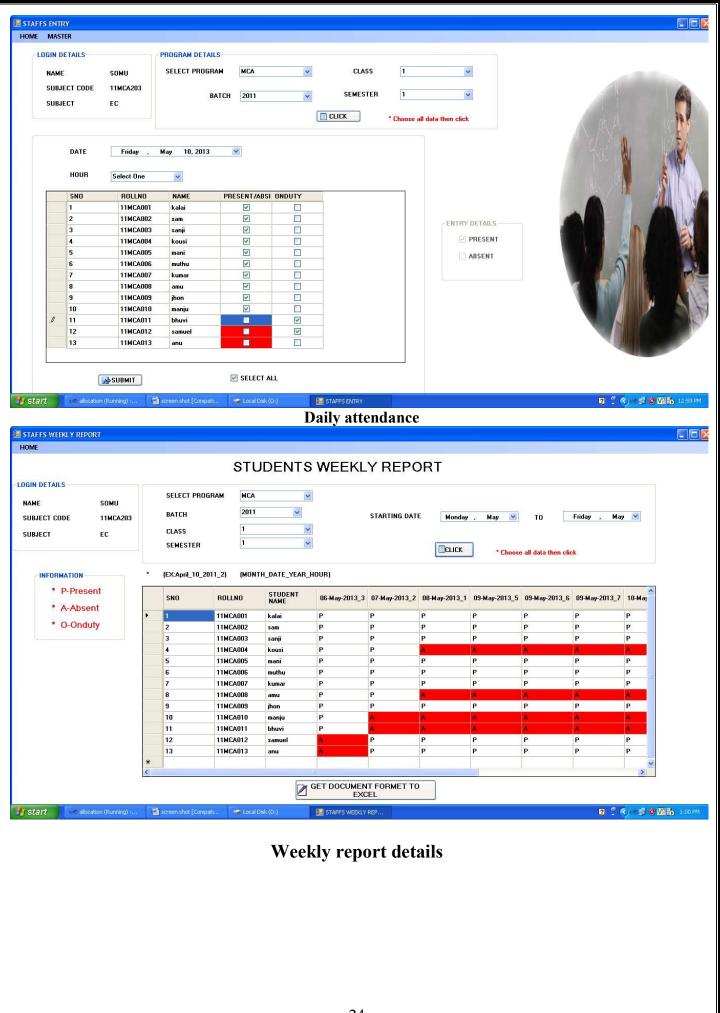
Staff Details



Attendance Entry



Weekly report



SOURCE CODE

COM.Email

Emailsedindservlet.java

```
package com.email;
import java.io.IOException;
import java.sql.*;
import javax.print.*;
import java.io.PrintWriter;
import javax.servlet.ServletContext;
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 com.attendance.DatabaseConnection;
@WebServlet("/EmailSendingServlet")
public class EmailSendingServlet extends HttpServlet {
      private String host;
      private String port;
      private String user;
      private String pass;
      public void init() {
             // reads SMTP server setting from web.xml file
             ServletContext context = getServletContext();
             host = context.getInitParameter("host");
             port = context.getInitParameter("port");
             user = context.getInitParameter("user");
             pass = context.getInitParameter("pass");
      }
      protected void doGet(HttpServletRequest request, HttpServletResponse response)
                    throws ServletException, IOException {
             // reads form fields
             Connection con = null;
             Statement statement = null;
             ResultSet resultset = null;
             int student id = Integer.parseInt(request.getParameter("student id"));
             String email = "";
             String uname = "";
             String password = "";
             String uname password = "";
```

```
try {
                    con = DatabaseConnection.getConnection();
                    statement = con.createStatement();
                    resultset = statement.executeQuery("select email,uname,password from students
where student id="" + student id + """);
                    while (resultset.next()) {
                           email = resultset.getString(1);
                           uname = resultset.getString(2);
                           password = resultset.getString(3);
                           uname password = "Hi
"+uname+","+System.lineSeparator()+System.lineSeparator()+ "Your Student Login
Portal"+System.lineSeparator()+"User Name: "+uname + System.lineSeparator()+"Password: "+
password +System.lineSeparator()+System.lineSeparator()+"Thank
you."+System.lineSeparator()+"Student Attendance Team.";
             } catch (Exception e) {
                    e.printStackTrace();
             String message = "Student Attendance System.";
             // String content = request.getParameter("content");
             String resultMessage = "";
             PrintWriter out = response.getWriter();
             try {
                    EmailUtility.sendEmail(host, port, "Your attendance emailId here", "email
password", email, message, uname password);
                    HttpSession session=request.getSession();
                    resultMessage = "Your login user name & password send successfully in your
email.";
                    session.setAttribute("mail-success", resultMessage);
             } catch (Exception ex) {
                    ex.printStackTrace();
                    resultMessage = "There were an error: " + ex.getMessage();
             } finally {
                    //request.setAttribute("Message", resultMessage);
      response.sendRedirect("send user name and password to student in mail.jsp");
Emailutility.java
package com.email;
import java.util.Date;
import java.util.Properties;
import javax.mail.Authenticator;
import javax.mail.Message;
import javax.mail.MessagingException;
import javax.mail.PasswordAuthentication;
```

```
import javax.mail.Session;
import javax.mail.Transport;
import javax.mail.internet.AddressException;
import javax.mail.internet.InternetAddress;
import javax.mail.internet.MimeMessage;
public class EmailUtility {
      public static void sendEmail(String host, String port,
                    final String userName, final String password, String toAddress,
                    String subject, String message) throws AddressException,
                    MessagingException {
             // sets SMTP server properties
             Properties properties = new Properties();
             properties.put("mail.smtp.host", host);
             properties.put("mail.smtp.port", port);
             properties.put("mail.smtp.auth", "true");
             properties.put("mail.smtp.starttls.enable", "true");
             // creates a new session with an authenticator
             Authenticator auth = new Authenticator() {
                    public PasswordAuthentication getPasswordAuthentication() {
                           return new PasswordAuthentication(userName, password);
             };
             Session session = Session.getInstance(properties, auth);
             // creates a new e-mail message
             Message msg = new MimeMessage(session);
             msg.setFrom(new InternetAddress(userName));
             InternetAddress[] toAddresses = { new InternetAddress(toAddress) };
             msg.setRecipients(Message.RecipientType.TO, toAddresses);
             msg.setSubject(subject);
             msg.setSentDate(new Date());
             msg.setText(message);
             // sends the e-mail
             Transport.send(msg);
      }
                                     Com.reports
AllStudentRegisterReport.java
package com.reports;
import java.io.ByteArrayOutputStream;
import java.io.File;
import java.io.FileInputStream;
import java.io.FileNotFoundException;
```

```
import java.io.FileOutputStream;
import java.io.IOException;
import java.io.InputStream;
import java.io.OutputStream;
import java.sql.ResultSet;
import java.text.SimpleDateFormat;
import java.util.Date;
import javax.servlet.ServletContext;
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 com.attendance.DatabaseConnection;
import com.itextpdf.text.BaseColor;
import com.itextpdf.text.Document;
import com.itextpdf.text.DocumentException;
import com.itextpdf.text.Element;
import com.itextpdf.text.Font;
import com.itextpdf.text.Paragraph;
import com.itextpdf.text.Phrase;
import com.itextpdf.text.pdf.PdfPCell;
import com.itextpdf.text.pdf.PdfPTable;
import com.itextpdf.text.pdf.PdfWriter;
* Servlet implementation class UserTradingPDFReport
@WebServlet("/AllStudentsRegisterReport")
public class AllStudentsRegisterReport extends HttpServlet {
      private static final long serialVersionUID = 1L;
      private static Font TIME ROMAN = new Font(Font.FontFamily.TIMES ROMAN, 18,
Font.BOLD);
      private static Font TIME ROMAN SMALL = new Font(Font.FontFamily.TIMES ROMAN,
12, Font.BOLD);
      protected void doGet(HttpServletRequest request, HttpServletResponse response)
                    throws ServletException, IOException {
             final ServletContext servletContext = request.getSession().getServletContext();
             final File tempDirectory = (File)
servletContext.getAttribute("javax.servlet.context.tempdir");
             final String temperotyFilePath = tempDirectory.getAbsolutePath();
             String fileName = "All Students Register Report " + System.currentTimeMillis() +
".pdf";
             response.setContentType("application/pdf");
             response.setHeader("Cache-Control", "no-cache");
             response.setHeader("Cache-Control", "max-age=0");
             response.setHeader("Content-disposition", "attachment; " + "filename=" + fileName);
             try {
                    createPDF(temperotyFilePath + "\\" + fileName);
                    ByteArrayOutputStream baos = new ByteArrayOutputStream();
                                               28
```

```
baos = convertPDFToByteArrayOutputStream(temperotyFilePath + "\\" +
fileName);
                    OutputStream os = response.getOutputStream();
                    baos.writeTo(os);
                    os.flush();
             } catch (Exception e1) {
                    e1.printStackTrace();
      }
      protected void doPost(HttpServletRequest request, HttpServletResponse response)
                    throws ServletException, IOException {
      }
      private static ByteArrayOutputStream convertPDFToByteArrayOutputStream(String
fileName) {
             InputStream inputStream = null;
             ByteArrayOutputStream baos = new ByteArrayOutputStream();
             try {
                    inputStream = new FileInputStream(fileName);
                    byte[] buffer = new byte[1024];
                    baos = new ByteArrayOutputStream();
                    int bytesRead;
                    while ((bytesRead = inputStream.read(buffer)) != -1) {
                           baos.write(buffer, 0, bytesRead);
                    }
             } catch (FileNotFoundException e) {
                    e.printStackTrace();
             } catch (IOException e) {
                    e.printStackTrace();
             } finally {
                    if (inputStream != null) {
                           try {
                                  inputStream.close();
                           } catch (IOException e) {
                                 e.printStackTrace();
             return baos;
      }
      public static Document createPDF(String file) {
             Document document = null;
             try {
                    document = new Document();
                    PdfWriter.getInstance(document, new FileOutputStream(file));
                    document.open();
```

```
addMetaData(document);
                   addTitlePage(document);
                   createTable(document);
                   document.close();
             } catch (FileNotFoundException e) {
                   e.printStackTrace();
             } catch (DocumentException e) {
                   e.printStackTrace();
             return document;
      }
      private static void addMetaData(Document document) {
             document.addTitle("Generate PDF report");
             document.addSubject("Generate PDF report");
            document.addAuthor("Kishor Kadam");
             document.addCreator("Kishor Kadam");
      }
      private static void addTitlePage(Document document) throws DocumentException {
             Paragraph preface = new Paragraph();
             creteEmptyLine(preface, 1);
             preface.add(new Paragraph("Students Register Report", TIME ROMAN));
             creteEmptyLine(preface, 1);
             SimpleDateFormat simpleDateFormat = new SimpleDateFormat("MM/dd/yyyy");
             preface.add(
                          new Paragraph ("Students Register Report on " +
simpleDateFormat.format(new Date()), TIME ROMAN SMALL));
             document.add(preface);
      }
      private static void creteEmptyLine(Paragraph paragraph, int number) {
             for (int i = 0; i < number; i++) {
                   paragraph.add(new Paragraph(" "));
      }
      private static void createTable(Document document) throws DocumentException {
             Paragraph paragraph = new Paragraph();
             creteEmptyLine(paragraph, 2);
             document.add(paragraph);
             PdfPTable table = new PdfPTable(6);
             PdfPCell c1 = new PdfPCell(new Phrase("Student Id"));
             c1.setHorizontalAlignment(Element.ALIGN CENTER);
```

```
table.addCell(c1);
             c1 = new PdfPCell(new Phrase("Student Name"));
             c1.setHorizontalAlignment(Element.ALIGN CENTER);
             table.addCell(c1);
             c1 = new PdfPCell(new Phrase("College Name"));
             c1.setHorizontalAlignment(Element.ALIGN CENTER);
             table.addCell(c1);
             c1 = new PdfPCell(new Phrase("Mobile"));
             c1.setHorizontalAlignment(Element.ALIGN CENTER);
             table.addCell(c1);
             c1 = new PdfPCell(new Phrase("Address"));
             c1.setHorizontalAlignment(Element.ALIGN CENTER);
             table.addCell(c1);
             c1 = new PdfPCell(new Phrase("Email Id"));
             c1.setHorizontalAlignment(Element.ALIGN CENTER);
             table.addCell(c1);
             table.setHeaderRows(1);
             PdfPCell[] cells = table.getRow(0).getCells();
             for (int j = 0; j < cells.length; <math>j++) {
                    cells[i].setBorderColor(BaseColor.BLACK);
                    cells[j].setBackgroundColor(BaseColor.GRAY);
             }
             try {
                    PdfPCell TableCell = null;
                    table.setWidthPercentage(100);
                    table.getDefaultCell().setHorizontalAlignment(Element.ALIGN CENTER);
                    table.getDefaultCell().setVerticalAlignment(Element.ALIGN MIDDLE);
                    ResultSet resultset = DatabaseConnection.getResultFromSqlQuery("select *
from students ");
                    while (resultset.next()) {
                          String student id = resultset.getString("student id");
                          String stud name = resultset.getString("stud name");
                          String college_name = resultset.getString("college_name");
                          String mobile = resultset.getString("mobile");
                          String address = resultset.getString("address");
                          String email = resultset.getString("email");
                          TableCell = new PdfPCell(new Phrase(student id));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(stud name));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(college name));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(mobile));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(address));
```

StudentAttendanceReport.java

package com.reports;

import java.io.ByteArrayOutputStream; import java.io.File; import java.io.FileInputStream; import java.io.FileNotFoundException; import java.io.FileOutputStream; import java.io.IOException; import java.io.InputStream; import java.io.OutputStream; import java.sql.ResultSet; import java.text.SimpleDateFormat; import java.util.Date; import javax.servlet.ServletContext; 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 com.attendance.DatabaseConnection; import com.itextpdf.text.BaseColor; import com.itextpdf.text.Document; import com.itextpdf.text.DocumentException; import com.itextpdf.text.Element; import com.itextpdf.text.Font; import com.itextpdf.text.Paragraph; import com.itextpdf.text.Phrase; import com.itextpdf.text.pdf.PdfPCell; import com.itextpdf.text.pdf.PdfPTable; import com.itextpdf.text.pdf.PdfWriter;

/**

* Servlet implementation class UserTradingPDFReport

```
private static Font TIME ROMAN SMALL = new Font(Font.FontFamily.TIMES ROMAN,
                                 12, Font.BOLD);
     protected void doGet(HttpServletRequest request, HttpServletResponse response)
                                throws ServletException, IOException {
          final ServletContext servletContext = request.getSession().getServletContext();
                                final File tempDirectory = (File)
           servletContext.getAttribute("javax.servlet.context.tempdir");
               final String temperotyFilePath = tempDirectory.getAbsolutePath();
        String fileName = "Student Attendance Report " + System.currentTimeMillis() +
                                     ".pdf":
                          response.setContentType("application/pdf");
                       response.setHeader("Cache-Control", "no-cache");
                      response.setHeader("Cache-Control", "max-age=0");
      response.setHeader("Content-disposition", "attachment; " + "filename=" + fileName);
                                             try {
                           createPDF(temperotyFilePath + "\\" + fileName);
                    ByteArrayOutputStream baos = new ByteArrayOutputStream();
               baos = convertPDFToByteArrayOutputStream(temperotyFilePath + "\\" +
                                    fileName);
                           OutputStream os = response.getOutputStream();
                                          baos.writeTo(os);
                                              os.flush();
                                    } catch (Exception e1) {
                                        e1.printStackTrace();
     protected void doPost(HttpServletRequest request, HttpServletResponse response)
                                throws ServletException, IOException {
   private static ByteArrayOutputStream convertPDFToByteArrayOutputStream(String
                                   fileName) {
                                InputStream inputStream = null;
                ByteArrayOutputStream baos = new ByteArrayOutputStream();
                                             try {
                            inputStream = new FileInputStream(fileName);
                                    byte[] buffer = new byte[1024];
                                baos = new ByteArrayOutputStream();
                                            int bytesRead;
                         while ((bytesRead = inputStream.read(buffer)) != -1) {
                                      baos.write(buffer, 0, bytesRead);
                              } catch (FileNotFoundException e) {
                                         e.printStackTrace();
                                    } catch (IOException e) {
```

```
e.printStackTrace();
                                      } finally {
                                  if (inputStream != null) {
                                               try {
                                          inputStream.close();
                                     } catch (IOException e) {
                                          e.printStackTrace();
                                    return baos;
                 public static Document createPDF(String file) {
                             Document document = null;
                                        try {
                                document = new Document();
                PdfWriter.getInstance(document, new FileOutputStream(file));
                                     document.open();
                                 addMetaData(document);
                                  addTitlePage(document);
                                  createTable(document);
                                     document.close();
                         } catch (FileNotFoundException e) {
                                    e.printStackTrace();
                           } catch (DocumentException e) {
                                    e.printStackTrace();
                                  return document;
                                      }
            private static void addMetaData(Document document) {
                     document.addTitle("Generate PDF report");
                    document.addSubject("Generate PDF report");
                       document.addAuthor("Kishor Kadam");
                       document.addCreator("Kishor Kadam");
private static void addTitlePage(Document document) throws DocumentException {
                        Paragraph preface = new Paragraph();
                             creteEmptyLine(preface, 1);
     preface.add(new Paragraph("Student Attendance Report", TIME ROMAN));
                             creteEmptyLine(preface, 1);
   SimpleDateFormat simpleDateFormat = new SimpleDateFormat("MM/dd/yyyy");
                                    preface.add(
                         new Paragraph("Student Attendance Report on " +
    simpleDateFormat.format(new Date()), TIME ROMAN SMALL));
```

```
document.add(preface);
                                                   }
                 private static void creteEmptyLine(Paragraph paragraph, int number) {
                                        for (int i = 0; i < number; i++) {
                                        paragraph.add(new Paragraph(" "));
            private static void createTable(Document document) throws DocumentException {
                                  Paragraph paragraph = new Paragraph();
                                       creteEmptyLine(paragraph, 2);
                                         document.add(paragraph);
                                    PdfPTable table = new PdfPTable(5);
                            PdfPCell c1 = new PdfPCell(new Phrase("Student Id"));
                            c1.setHorizontalAlignment(Element.ALIGN CENTER);
                                              table.addCell(c1);
                               c1 = new PdfPCell(new Phrase("Student Name"));
                            c1.setHorizontalAlignment(Element.ALIGN CENTER);
                                              table.addCell(c1);
                            c1 = new PdfPCell(new Phrase("Total Present Days"));
                            c1.setHorizontalAlignment(Element.ALIGN CENTER);
                                              table.addCell(c1);
                            c1 = new PdfPCell(new Phrase("Total Absent Days"));
                            c1.setHorizontalAlignment(Element.ALIGN CENTER);
                                              table.addCell(c1);
                                c1 = new PdfPCell(new Phrase("Total Days"));
                            c1.setHorizontalAlignment(Element.ALIGN CENTER);
                                              table.addCell(c1);
                                           table.setHeaderRows(1);
                                 PdfPCell[] cells = table.getRow(0).getCells();
                                      for (int j = 0; j < cells.length; j++) {
                                     cells[j].setBorderColor(BaseColor.BLACK);
                                   cells[j].setBackgroundColor(BaseColor.GRAY);
                                                    try {
                                             PdfPCell TableCell = null;
                                           table.setWidthPercentage(100);
                      table.getDefaultCell().setHorizontalAlignment(Element.ALIGN CENTER);
                       table.getDefaultCell().setVerticalAlignment(Element.ALIGN MIDDLE);
                          ResultSet resultset = DatabaseConnection.getResultFromSqlQuery(
                                                             "select
student attendance.student id, students.stud name, count(case when attendance = 'present' then 1 end)
```

```
as Present Count,count(case when attendance ='absent' then 1 end) as Absent Count,count(distinct
        system date) as Total Count from student attendance INNER JOIN students ON
           students.student id=student attendance.student id group by student id ");
                                              while (resultset.next()) {
                                   String student id = resultset.getString("student id");
                                   String stud name = resultset.getString("stud name");
                               String Present Count = resultset.getString("Present Count");
                                String Absent Count = resultset.getString("Absent Count");
                                 String Total Count = resultset.getString("Total Count");
                                    TableCell = new PdfPCell(new Phrase(student id));
                                                 table.addCell(TableCell);
                                    TableCell = new PdfPCell(new Phrase(stud name));
                                                 table.addCell(TableCell);
                                  TableCell = new PdfPCell(new Phrase(Present Count));
                                                 table.addCell(TableCell);
                                   TableCell = new PdfPCell(new Phrase(Absent Count));
                                                 table.addCell(TableCell);
                                   TableCell = new PdfPCell(new Phrase(Total Count));
                                                 table.addCell(TableCell);
                                            } catch (Exception e) {
                                                e.printStackTrace();
                                            document.add(table);
                                                }
```

StudentActiveorinactive.java

package com.reports;

```
import java.io.ByteArrayOutputStream;
import java.io.File;
import java.io.FileInputStream;
import java.io.FileNotFoundException;
import java.io.FileOutputStream;
import java.io.IOException;
import java.io.InputStream;
import java.io.OutputStream;
import java.sql.ResultSet;
import java.text.SimpleDateFormat;
import java.util.Date;
import javax.servlet.ServletContext;
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 com.attendance.DatabaseConnection;
import com.itextpdf.text.BaseColor;
import com.itextpdf.text.Document;
import com.itextpdf.text.DocumentException;
import com.itextpdf.text.Element;
import com.itextpdf.text.Font;
import com.itextpdf.text.Paragraph;
import com.itextpdf.text.Phrase;
import com.itextpdf.text.pdf.PdfPCell;
import com.itextpdf.text.pdf.PdfPTable;
```

```
import com.itextpdf.text.pdf.PdfWriter;
 * Servlet implementation class UserTradingPDFReport
@WebServlet("/StudentsActiveOrInactive")
public class StudentsActiveOrInactive extends HttpServlet {
      private static final long serialVersionUID = 1L;
      private static Font TIME_ROMAN = new Font(Font.FontFamily.TIMES_ROMAN, 18, Font.BOLD);
      private static Font TIME_ROMAN_SMALL = new Font(Font.FontFamily.TIMES_ROMAN, 12,
Font.BOLD);
      protected void doGet(HttpServletRequest request, HttpServletResponse response)
                    throws ServletException, IOException {
             final ServletContext servletContext = request.getSession().getServletContext();
             final File tempDirectory = (File)
servletContext.getAttribute("javax.servlet.context.tempdir");
             final String temperotyFilePath = tempDirectory.getAbsolutePath();
             String fileName = "All Students Active Or Inactive Report " +
System.currentTimeMillis() + ".pdf";
             response.setContentType("application/pdf");
             response.setHeader("Cache-Control", "no-cache");
response.setHeader("Cache-Control", "max-age=0");
             response.setHeader("Content-disposition", "attachment; " + "filename=" +
fileName);
             try {
                    createPDF(temperotyFilePath + "\\" + fileName);
                    ByteArrayOutputStream baos = new ByteArrayOutputStream();
                    baos = convertPDFToByteArrayOutputStream(temperotyFilePath + "\\" +
fileName);
                    OutputStream os = response.getOutputStream();
                    baos.writeTo(os);
                    os.flush();
             } catch (Exception e1) {
                    e1.printStackTrace();
             }
      }
      protected void doPost(HttpServletRequest request, HttpServletResponse response)
                    throws ServletException, IOException {
      }
      private static ByteArrayOutputStream convertPDFToByteArrayOutputStream(String fileName)
{
             InputStream inputStream = null;
             ByteArrayOutputStream baos = new ByteArrayOutputStream();
             try {
                    inputStream = new FileInputStream(fileName);
                    byte[] buffer = new byte[1024];
                    baos = new ByteArrayOutputStream();
                    int bytesRead;
                    while ((bytesRead = inputStream.read(buffer)) != -1) {
                           baos.write(buffer, 0, bytesRead);
             } catch (FileNotFoundException e) {
                    e.printStackTrace();
             } catch (IOException e) {
                                                37
```

```
e.printStackTrace();
             } finally {
                   if (inputStream != null) {
                          try {
                                 inputStream.close();
                          } catch (IOException e) {
                                 e.printStackTrace();
             return baos;
      public static Document createPDF(String file) {
             Document document = null;
             try {
                   document = new Document();
                   PdfWriter.getInstance(document, new FileOutputStream(file));
                   document.open();
                   addMetaData(document);
                   addTitlePage(document);
                   createTable(document);
                   document.close();
             } catch (FileNotFoundException e) {
                   e.printStackTrace();
             } catch (DocumentException e) {
                   e.printStackTrace();
             return document;
      }
      private static void addMetaData(Document document) {
             document.addTitle("Generate PDF report");
             document.addSubject("Generate PDF report");
             document.addAuthor("Kishor Kadam");
             document.addCreator("Kishor Kadam");
      }
      private static void addTitlePage(Document document) throws DocumentException {
             Paragraph preface = new Paragraph();
             creteEmptyLine(preface, 1);
             preface.add(new Paragraph("Students Active Or Inactive Report ", TIME_ROMAN));
             creteEmptyLine(preface, 1);
             SimpleDateFormat simpleDateFormat = new SimpleDateFormat("MM/dd/yyyy");
             preface.add(new Paragraph("Students Active Or Inactive Report on " +
simpleDateFormat.format(new Date()), TIME_ROMAN_SMALL));
             document.add(preface);
      }
      private static void creteEmptyLine(Paragraph paragraph, int number) {
             for (int i = 0; i < number; i++) {
                    paragraph.add(new Paragraph(" "));
      private static void createTable(Document document) throws DocumentException {
```

```
Paragraph paragraph = new Paragraph();
             creteEmptyLine(paragraph, 2);
             document.add(paragraph);
             PdfPTable table = new PdfPTable(6);
             PdfPCell c1 = new PdfPCell(new Phrase("Student Id"));
             c1.setHorizontalAlignment(Element.ALIGN_CENTER);
             table.addCell(c1);
             c1 = new PdfPCell(new Phrase("Student Name"));
             c1.setHorizontalAlignment(Element.ALIGN CENTER);
             table.addCell(c1);
             c1 = new PdfPCell(new Phrase("College Name"));
             c1.setHorizontalAlignment(Element.ALIGN CENTER);
             table.addCell(c1);
             c1 = new PdfPCell(new Phrase("Mobile"));
             c1.setHorizontalAlignment(Element.ALIGN_CENTER);
             table.addCell(c1);
             c1 = new PdfPCell(new Phrase("Address"));
             c1.setHorizontalAlignment(Element.ALIGN CENTER);
             table.addCell(c1);
             c1 = new PdfPCell(new Phrase("Status"));
             c1.setHorizontalAlignment(Element.ALIGN_CENTER);
             table.addCell(c1);
             table.setHeaderRows(1);
             PdfPCell[] cells = table.getRow(0).getCells();
             for (int j = 0; j < cells.length; j++) {
                    cells[j].setBorderColor(BaseColor.BLACK);
                    cells[j].setBackgroundColor(BaseColor.GRAY);
             }
             try {
                   PdfPCell TableCell = null;
                   table.setWidthPercentage(100);
                   table.getDefaultCell().setHorizontalAlignment(Element.ALIGN CENTER);
                    table.getDefaultCell().setVerticalAlignment(Element.ALIGN_MIDDLE);
                   ResultSet resultset = DatabaseConnection.getResultFromSqlQuery("select *
from students ");
                   while (resultset.next()) {
                          String student_id = resultset.getString("student_id");
                          String stud_name = resultset.getString("stud_name");
                          String college_name = resultset.getString("college_name");
                          String mobile = resultset.getString("mobile");
                          String address = resultset.getString("address");
                          String status = resultset.getString("status");
                          TableCell = new PdfPCell(new Phrase(student_id));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(stud_name));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(college name));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(mobile));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(address));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(status));
                                               39
```

```
table.addCell(TableCell);
             } catch (Exception e) {
                   e.printStackTrace();
             document.add(table);
      }
StudentFeedbackReport.java
package com.reports;
import java.io.ByteArrayOutputStream;
import java.io.File;
import java.io.FileInputStream;
import java.io.FileNotFoundException;
import java.io.FileOutputStream;
import java.io.IOException;
import java.io.InputStream;
import java.io.OutputStream;
import java.sql.ResultSet;
import java.text.SimpleDateFormat;
import java.util.Date;
import javax.servlet.ServletContext;
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 com.attendance.DatabaseConnection;
import com.itextpdf.text.BaseColor;
import com.itextpdf.text.Document;
import com.itextpdf.text.DocumentException;
import com.itextpdf.text.Element;
import com.itextpdf.text.Font;
import com.itextpdf.text.Paragraph;
import com.itextpdf.text.Phrase:
import com.itextpdf.text.pdf.PdfPCell;
import com.itextpdf.text.pdf.PdfPTable;
import com.itextpdf.text.pdf.PdfWriter;
 * Servlet implementation class UserTradingPDFReport
@WebServlet("/StudentsFeedbackReport")
public class StudentsFeedbackReport extends HttpServlet {
      private static final long serialVersionUID = 1L;
      private static Font TIME_ROMAN = new Font(Font.FontFamily.TIMES_ROMAN, 18, Font.BOLD);
      private static Font TIME_ROMAN_SMALL = new Font(Font.FontFamily.TIMES_ROMAN, 12,
Font.BOLD);
      protected void doGet(HttpServletRequest request, HttpServletResponse response)
                   throws ServletException, IOException {
             final ServletContext servletContext = request.getSession().getServletContext();
             final File tempDirectory = (File)
servletContext.getAttribute("javax.servlet.context.tempdir");
             final String temperotyFilePath = tempDirectory.getAbsolutePath();
             String fileName = "Students_Feedback_Report_" + System.currentTimeMillis() +
".pdf";
             response.setContentType("application/pdf");
             response.setHeader("Cache-Control", "no-cache");
             response.setHeader("Cache-Control", "max-age=0");
                                               40
```

```
response.setHeader("Content-disposition", "attachment; " + "filename=" +
fileName);
             try {
                    createPDF(temperotyFilePath + "\\" + fileName);
                    ByteArrayOutputStream baos = new ByteArrayOutputStream();
                    baos = convertPDFToByteArrayOutputStream(temperotyFilePath + "\\" +
fileName);
                   OutputStream os = response.getOutputStream();
                    baos.writeTo(os);
                    os.flush();
             } catch (Exception e1) {
                    e1.printStackTrace();
      }
      protected void doPost(HttpServletRequest request, HttpServletResponse response)
                    throws ServletException, IOException {
      }
      private static ByteArrayOutputStream convertPDFToByteArrayOutputStream(String fileName)
{
             InputStream inputStream = null;
             ByteArrayOutputStream baos = new ByteArrayOutputStream();
             try {
                    inputStream = new FileInputStream(fileName);
                    byte[] buffer = new byte[1024];
                    baos = new ByteArrayOutputStream();
                    int bytesRead;
                   while ((bytesRead = inputStream.read(buffer)) != -1) {
                          baos.write(buffer, 0, bytesRead);
             } catch (FileNotFoundException e) {
                    e.printStackTrace();
             } catch (IOException e) {
                    e.printStackTrace();
             } finally {
                    if (inputStream != null) {
                          try {
                                 inputStream.close();
                          } catch (IOException e) {
                                 e.printStackTrace();
             return baos;
      }
      public static Document createPDF(String file) {
             Document document = null;
             try {
                    document = new Document();
                    PdfWriter.getInstance(document, new FileOutputStream(file));
                    document.open();
                    addMetaData(document);
                    addTitlePage(document);
                    createTable(document);
                    document.close();
                                               41
```

```
} catch (FileNotFoundException e) {
                   e.printStackTrace();
             } catch (DocumentException e) {
                   e.printStackTrace();
             return document;
      }
      private static void addMetaData(Document document) {
             document.addTitle("Generate PDF report");
             document.addSubject("Generate PDF report");
             document.addAuthor("Kishor Kadam");
             document.addCreator("Kishor Kadam");
      }
      private static void addTitlePage(Document document) throws DocumentException {
             Paragraph preface = new Paragraph();
             creteEmptyLine(preface, 1);
             preface.add(new Paragraph("Students Feedback Report ", TIME_ROMAN));
             creteEmptyLine(preface, 1);
             SimpleDateFormat simpleDateFormat = new SimpleDateFormat("MM/dd/yyyy");
             preface.add(new Paragraph("Students Feedback Report on " +
simpleDateFormat.format(new Date()), TIME_ROMAN_SMALL));
             document.add(preface);
      }
      private static void creteEmptyLine(Paragraph paragraph, int number) {
             for (int i = 0; i < number; i++) {
                    paragraph.add(new Paragraph(" "));
      }
      private static void createTable(Document document) throws DocumentException {
             Paragraph paragraph = new Paragraph();
             creteEmptyLine(paragraph, 2);
             document.add(paragraph);
             PdfPTable table = new PdfPTable(4);
             PdfPCell c1 = new PdfPCell(new Phrase("Student Id"));
             c1.setHorizontalAlignment(Element.ALIGN CENTER);
             table.addCell(c1);
             c1 = new PdfPCell(new Phrase("Student Name"));
             c1.setHorizontalAlignment(Element.ALIGN_CENTER);
             table.addCell(c1);
             c1 = new PdfPCell(new Phrase("Mobile"));
             c1.setHorizontalAlignment(Element.ALIGN CENTER);
             table.addCell(c1);
             c1 = new PdfPCell(new Phrase("Feedback"));
             c1.setHorizontalAlignment(Element.ALIGN_CENTER);
             table.addCell(c1);
```

```
table.setHeaderRows(1);
             PdfPCell[] cells = table.getRow(0).getCells();
             for (int j = 0; j < cells.length; <math>j++) {
                    cells[j].setBorderColor(BaseColor.BLACK);
                    cells[j].setBackgroundColor(BaseColor.GRAY);
             }
             try {
                    PdfPCell TableCell = null;
                    table.setWidthPercentage(100);
                    table.getDefaultCell().setHorizontalAlignment(Element.ALIGN CENTER);
                    table.getDefaultCell().setVerticalAlignment(Element.ALIGN_MIDDLE);
                    ResultSet resultset = DatabaseConnection.getResultFromSqlQuery("select *
from student_feedback ");
                   while (resultset.next()) {
                          String fid = resultset.getString("fid");
                          String full_name = resultset.getString("full_name");
                          String mobile = resultset.getString("mobile");
                          String feedback = resultset.getString("feedback");
                          TableCell = new PdfPCell(new Phrase(fid));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(full_name));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(mobile));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(feedback));
                          table.addCell(TableCell);
             } catch (Exception e) {
                   e.printStackTrace();
             document.add(table);
      }
}
StudentleavedApproved.java
package com.reports;
import java.io.ByteArrayOutputStream;
import java.io.File;
import java.io.FileInputStream;
import java.io.FileNotFoundException;
import java.io.FileOutputStream;
import java.io.IOException;
import java.io.InputStream;
import java.io.OutputStream;
import java.sql.ResultSet;
import java.text.SimpleDateFormat;
import java.util.Date;
import javax.servlet.ServletContext;
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 com.attendance.DatabaseConnection;
import com.itextpdf.text.BaseColor;
import com.itextpdf.text.Document;
import com.itextpdf.text.DocumentException;
```

```
import com.itextpdf.text.Element;
import com.itextpdf.text.Font;
import com.itextpdf.text.Paragraph;
import com.itextpdf.text.Phrase;
import com.itextpdf.text.pdf.PdfPCell;
import com.itextpdf.text.pdf.PdfPTable;
import com.itextpdf.text.pdf.PdfWriter;
 * Servlet implementation class UserTradingPDFReport
*/
@WebServlet("/StudentsLeaveApproved")
public class StudentsLeaveApproved extends HttpServlet {
      private static final long serialVersionUID = 1L;
      private static Font TIME_ROMAN = new Font(Font.FontFamily.TIMES_ROMAN, 18, Font.BOLD);
      private static Font TIME ROMAN SMALL = new Font(Font.FontFamily.TIMES ROMAN, 12,
Font.BOLD);
      protected void doGet(HttpServletRequest request, HttpServletResponse response)
                   throws ServletException, IOException {
             final ServletContext servletContext = request.getSession().getServletContext();
             final File tempDirectory = (File)
servletContext.getAttribute("javax.servlet.context.tempdir");
             final String temperotyFilePath = tempDirectory.getAbsolutePath();
             String fileName = "Students_Leave_Approved_Report_" + System.currentTimeMillis() +
".pdf";
             response.setContentType("application/pdf");
             response.setHeader("Cache-Control", "no-cache");
             response.setHeader("Cache-Control", "max-age=0");
             response.setHeader("Content-disposition", "attachment; " + "filename=" +
fileName);
             try {
                    createPDF(temperotyFilePath + "\\" + fileName);
                    ByteArrayOutputStream baos = new ByteArrayOutputStream();
                   baos = convertPDFToByteArrayOutputStream(temperotyFilePath + "\\" +
fileName);
                   OutputStream os = response.getOutputStream();
                   baos.writeTo(os);
                   os.flush();
             } catch (Exception e1) {
                   e1.printStackTrace();
      }
      protected void doPost(HttpServletRequest request, HttpServletResponse response)
                   throws ServletException, IOException {
      }
      private static ByteArrayOutputStream convertPDFToByteArrayOutputStream(String fileName)
             InputStream inputStream = null;
             ByteArrayOutputStream baos = new ByteArrayOutputStream();
             try {
                   inputStream = new FileInputStream(fileName);
                   byte[] buffer = new byte[1024];
                   baos = new ByteArrayOutputStream();
                    int bytesRead;
                   while ((bytesRead = inputStream.read(buffer)) != -1) {
                                               44
```

```
baos.write(buffer, 0, bytesRead);
                    }
             } catch (FileNotFoundException e) {
                   e.printStackTrace();
             } catch (IOException e) {
                   e.printStackTrace();
             } finally {
                   if (inputStream != null) {
                          try {
                                 inputStream.close();
                          } catch (IOException e) {
                                 e.printStackTrace();
             return baos;
      public static Document createPDF(String file) {
             Document document = null;
             try {
                   document = new Document();
                   PdfWriter.getInstance(document, new FileOutputStream(file));
                   document.open();
                    addMetaData(document);
                   addTitlePage(document);
                    createTable(document);
                   document.close();
             } catch (FileNotFoundException e) {
                   e.printStackTrace();
             } catch (DocumentException e) {
                   e.printStackTrace();
             return document;
      }
      private static void addMetaData(Document document) {
             document.addTitle("Generate PDF report");
             document.addSubject("Generate PDF report");
             document.addAuthor("Kishor Kadam");
             document.addCreator("Kishor Kadam");
      }
      private static void addTitlePage(Document document) throws DocumentException {
             Paragraph preface = new Paragraph();
             creteEmptyLine(preface, 1);
             preface.add(new Paragraph("Students Leave Approved Report ", TIME_ROMAN));
             creteEmptyLine(preface, 1);
             SimpleDateFormat simpleDateFormat = new SimpleDateFormat("MM/dd/yyyy");
             preface.add(new Paragraph("Students Leave Approved Report on " +
simpleDateFormat.format(new Date()), TIME_ROMAN_SMALL));
             document.add(preface);
      }
      private static void creteEmptyLine(Paragraph paragraph, int number) {
```

```
for (int i = 0; i < number; i++) {
                    paragraph.add(new Paragraph(" "));
             }
      }
      private static void createTable(Document document) throws DocumentException {
             Paragraph paragraph = new Paragraph();
             creteEmptyLine(paragraph, 2);
             document.add(paragraph);
             PdfPTable table = new PdfPTable(5);
             PdfPCell c1 = new PdfPCell(new Phrase("Student Id"));
             c1.setHorizontalAlignment(Element.ALIGN CENTER);
             table.addCell(c1);
             c1 = new PdfPCell(new Phrase("Student Name"));
             c1.setHorizontalAlignment(Element.ALIGN CENTER);
             table.addCell(c1);
             c1 = new PdfPCell(new Phrase("Leave Reason"));
             c1.setHorizontalAlignment(Element.ALIGN_CENTER);
             table.addCell(c1);
             c1 = new PdfPCell(new Phrase("No of Days"));
             c1.setHorizontalAlignment(Element.ALIGN CENTER);
             table.addCell(c1);
             c1 = new PdfPCell(new Phrase("Leave Status"));
             c1.setHorizontalAlignment(Element.ALIGN CENTER);
             table.addCell(c1);
             table.setHeaderRows(1);
             PdfPCell[] cells = table.getRow(0).getCells();
             for (int j = 0; j < cells.length; <math>j++) {
                    cells[j].setBorderColor(BaseColor.BLACK);
                    cells[j].setBackgroundColor(BaseColor.GRAY);
             }
             try {
                    PdfPCell TableCell = null:
                   table.setWidthPercentage(100);
                    table.getDefaultCell().setHorizontalAlignment(Element.ALIGN CENTER);
                    table.getDefaultCell().setVerticalAlignment(Element.ALIGN_MIDDLE);
                    ResultSet resultset = DatabaseConnection.getResultFromSqlQuery("select *
from student_leave where leave_status='Approved'");
                   while (resultset.next()) {
                          String id = resultset.getString("id");
                          String name = resultset.getString("name");
                          String leave_reasone = resultset.getString("leave_reasone");
                          String no of days = resultset.getString("no of days");
                          String leave_status = resultset.getString("leave_status");
                          TableCell = new PdfPCell(new Phrase(id));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(name));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(leave reasone));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(no_of_days));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(leave_status));
                                               46
```

```
table.addCell(TableCell);
             } catch (Exception e) {
                   e.printStackTrace();
             document.add(table);
      }
<u>StudentLeavepen</u>ding.java
package com.reports;
import java.io.ByteArrayOutputStream;
import java.io.File;
import java.io.FileInputStream;
import java.io.FileNotFoundException;
import java.io.FileOutputStream;
import java.io.IOException;
import java.io.InputStream;
import java.io.OutputStream;
import java.sql.ResultSet;
import java.text.SimpleDateFormat;
import java.util.Date;
import javax.servlet.ServletContext;
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 com.attendance.DatabaseConnection;
import com.itextpdf.text.BaseColor;
import com.itextpdf.text.Document;
import com.itextpdf.text.DocumentException;
import com.itextpdf.text.Element;
import com.itextpdf.text.Font;
import com.itextpdf.text.Paragraph;
import com.itextpdf.text.Phrase;
import com.itextpdf.text.pdf.PdfPCell;
import com.itextpdf.text.pdf.PdfPTable;
import com.itextpdf.text.pdf.PdfWriter;
 * Servlet implementation class StudentsLeavePending
@WebServlet("/StudentsLeavePending")
public class StudentsLeavePending extends HttpServlet {
      private static final long serialVersionUID = 1L;
      private static Font TIME_ROMAN = new Font(Font.FontFamily.TIMES_ROMAN, 18, Font.BOLD);
      private static Font TIME_ROMAN_SMALL = new Font(Font.FontFamily.TIMES_ROMAN, 12,
Font.BOLD);
      protected void doGet(HttpServletRequest request, HttpServletResponse response)
                   throws ServletException, IOException {
             final ServletContext servletContext = request.getSession().getServletContext();
             final File tempDirectory = (File)
servletContext.getAttribute("javax.servlet.context.tempdir");
             final String temperotyFilePath = tempDirectory.getAbsolutePath();
             String fileName = "Students-Leave-Pending-Report-" + System.currentTimeMillis() +
".pdf";
             response.setContentType("application/pdf");
             response.setHeader("Cache-Control", "no-cache");
                                               47
```

```
response.setHeader("Cache-Control", "max-age=0");
             response.setHeader("Content-disposition", "attachment; " + "filename=" +
fileName);
             try {
                    createPDF(temperotyFilePath + "\\" + fileName);
                    ByteArrayOutputStream baos = new ByteArrayOutputStream();
                    baos = convertPDFToByteArrayOutputStream(temperotyFilePath + "\\" +
fileName);
                   OutputStream os = response.getOutputStream();
                    baos.writeTo(os);
                    os.flush();
             } catch (Exception e1) {
                   e1.printStackTrace();
      }
      protected void doPost(HttpServletRequest request, HttpServletResponse response)
                    throws ServletException, IOException {
      }
      private static ByteArrayOutputStream convertPDFToByteArrayOutputStream(String fileName)
{
             InputStream inputStream = null;
             ByteArrayOutputStream baos = new ByteArrayOutputStream();
             try {
                    inputStream = new FileInputStream(fileName);
                    byte[] buffer = new byte[1024];
                    baos = new ByteArrayOutputStream();
                    int bytesRead;
                   while ((bytesRead = inputStream.read(buffer)) != -1) {
                          baos.write(buffer, 0, bytesRead);
                    }
             } catch (FileNotFoundException e) {
                    e.printStackTrace();
             } catch (IOException e) {
                    e.printStackTrace();
             } finally {
                    if (inputStream != null) {
                          try {
                                 inputStream.close();
                          } catch (IOException e) {
                                 e.printStackTrace();
                          }
                    }
             return baos;
      }
      public static Document createPDF(String file) {
             Document document = null;
             try {
                    document = new Document();
                    PdfWriter.getInstance(document, new FileOutputStream(file));
                    document.open();
                    addMetaData(document);
                    addTitlePage(document);
                    createTable(document);
                                               48
```

```
document.close();
             } catch (FileNotFoundException e) {
                   e.printStackTrace();
             } catch (DocumentException e) {
                   e.printStackTrace();
             return document;
      }
      private static void addMetaData(Document document) {
             document.addTitle("Generate PDF report");
             document.addSubject("Generate PDF report");
             document.addAuthor("Kishor Kadam");
             document.addCreator("Kishor Kadam");
      private static void addTitlePage(Document document) throws DocumentException {
             Paragraph preface = new Paragraph();
             creteEmptyLine(preface, 1);
             preface.add(new Paragraph("Students Leave Pending Report ", TIME ROMAN));
             creteEmptyLine(preface, 1);
             SimpleDateFormat simpleDateFormat = new SimpleDateFormat("MM/dd/yyyy");
             preface.add(new Paragraph("Students Leave Pending Report on " +
simpleDateFormat.format(new Date()), TIME ROMAN SMALL));
             document.add(preface);
      }
      private static void creteEmptyLine(Paragraph paragraph, int number) {
             for (int i = 0; i < number; i++) {
                   paragraph.add(new Paragraph(" "));
      private static void createTable(Document document) throws DocumentException {
             Paragraph paragraph = new Paragraph();
             creteEmptyLine(paragraph, 2);
             document.add(paragraph);
             PdfPTable table = new PdfPTable(5);
             PdfPCell c1 = new PdfPCell(new Phrase("Student Id"));
             c1.setHorizontalAlignment(Element.ALIGN_CENTER);
             table.addCell(c1);
             c1 = new PdfPCell(new Phrase("Student Name"));
             c1.setHorizontalAlignment(Element.ALIGN CENTER);
             table.addCell(c1);
             c1 = new PdfPCell(new Phrase("Leave Reason"));
             c1.setHorizontalAlignment(Element.ALIGN CENTER);
             table.addCell(c1);
             c1 = new PdfPCell(new Phrase("No of Days"));
             c1.setHorizontalAlignment(Element.ALIGN_CENTER);
             table.addCell(c1);
```

```
c1 = new PdfPCell(new Phrase("Leave Status"));
             c1.setHorizontalAlignment(Element.ALIGN CENTER);
             table.addCell(c1);
             table.setHeaderRows(1);
             PdfPCell[] cells = table.getRow(0).getCells();
             for (int j = 0; j < cells.length; <math>j++) {
                    cells[j].setBorderColor(BaseColor.BLACK);
                    cells[j].setBackgroundColor(BaseColor.GRAY);
             try {
                    PdfPCell TableCell = null;
                   table.setWidthPercentage(100);
                    table.getDefaultCell().setHorizontalAlignment(Element.ALIGN_CENTER);
                    table.getDefaultCell().setVerticalAlignment(Element.ALIGN MIDDLE);
                    ResultSet resultset = DatabaseConnection.getResultFromSqlQuery("select *
from student_leave where leave_status='Pending'");
                   while (resultset.next()) {
                          String id = resultset.getString("id");
                          String name = resultset.getString("name");
                          String leave reasone = resultset.getString("leave reasone");
                          String no_of_days = resultset.getString("no_of_days");
                          String leave_status = resultset.getString("leave_status");
                          TableCell = new PdfPCell(new Phrase(id));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(name));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(leave reasone));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(no_of_days));
                          table.addCell(TableCell);
                          TableCell = new PdfPCell(new Phrase(leave_status));
                          table.addCell(TableCell);
             } catch (Exception e) {
                    e.printStackTrace();
             document.add(table);
      }
}
```