

# EduBridge



A Project Report

On

**“SCHOOL  
MANAGEMENT  
SYSTEM”**

By

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Technical Trainer

**EduBridge**

## **ABSTRACT**

School Management System is a large database system which can be used for managing your school's day to day business. School Management System allows users to store almost all of their school's information electronically, including information on students, properties, teaching meteorites etc. Most importantly, this information can be easily shared with authorized users, records can be easily searched, and reports can be easily generated. School Management System is software which is helpful for students as well as the school authorities. In the current system all the activities are done manually. It is very time consuming and costly. Our School Management System deals with the various Activities. An efficient Student Management Solution that, enables in maintaining and give the promotions and remarks for the student in the School management system.

# INTRODUCTION

## System Overview

The title of the project is “School Management system”. This project will handle the whole activities of the school. SMS has most of the facilities that a modern school requires to computerize its day-to-day jobs. It provides facilities to keep the records of student, fees, teaching and non-teaching staff with all their required details along with all required transaction handling. It has facilities to generate various types of reports, which are required by the management during normal business operations to operate the business effectively.

## Existing system

In the earlier system, it was difficult to store all the student, teacher and staff records which required a lot of paperwork and time consumption. It also leads to errors and mistakes. Everything like attendance, fees and results have to be marked manually. These systems also caused redundancy of data. If any records need to be updated then it has to be changed in every file so making it difficult to manage all the data. There was no security as anyone could view those records. So there was the need for developing an automated system which could handle all these problems making the system easier to use.

## Proposed system

Now the proposed system is developed to solve all the problems that occurred in the earlier systems. It provides a user-friendly interface where there is an administrator which only has the privilege to access the data. This makes the system Easy and reliable. This system allows to keep track of the student details and maintain the staff information. So everything becomes easy thus reducing the risks that come with an existing system.

## School Management System Modules

- **Add module:** This allows adding new users to the system database.
- **Show module:** This allows Show the records in a database.
- **Delete module:** It deleted the student records from a database.

- **Update module:** This module displays the Updated Information of the database.
- **Exit module:** This module is use to exit from the Information of the database.

### **Software Requirements**

- JVM(Eclipse IDE)
- MYSQL Workbench 8.0

### **Hardware Requirements**

- Hard Disk – 2 GB.
- RAM required – 2 GB (minimum)
- Processor – Dual Core or Above.
- OS supported: Windows, Linux

### **Technology Used**

- Java
- MySql

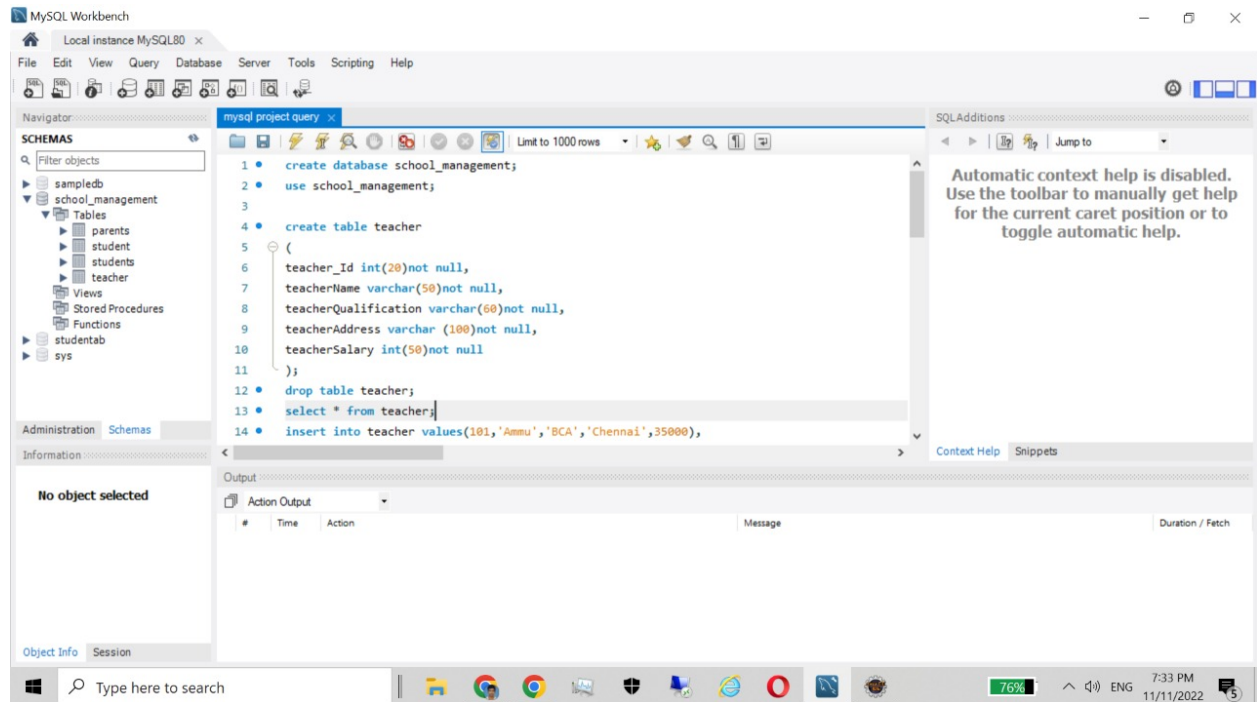
### **System Design**

System Design is the solution to the creation of a new system. This is the important aspect made up of several steps. The complete, efficient and successful system should provide the following in succession .If the project is to be successful, we will need to answer these questions. The answer of these questions is schema manner and is known as system design. A systematic manner will be followed so

as to achieve beneficial results at the end. Software report can be broken into a series of steps starting with the basic ideas and ending with the finished project.

## Data Dictionary

### Creating Database



## Creating Teacher Table

The screenshot shows the MySQL Workbench interface with a local instance of MySQL 8.0. The 'Navigator' pane on the left shows the 'school\_management' database selected. The 'Query Editor' pane contains the following SQL code:

```
7 teacherName varchar(50)not null,  
8 teacherQualification varchar(60)not null,  
9 teacherAddress varchar (100)not null,  
10 teacherSalary int(50)not null  
11 );  
12 drop table teacher;  
13 select * from teacher;
```

The 'Result Grid' pane displays the output of the 'select \* from teacher;' query, showing three rows of data:

teacher_id	teacherName	teacherQualification	teacherAddress	teacherSalary
101	ammu	bca	chennai	20555
102	abi	eee	chennai	35000
104	siva	EEE	Mumbai	25000

The 'Output' pane shows the execution log with three actions:

#	Time	Action	Message	Duration / Fetch
1	19:48:21	select * from teacher LIMIT 0, 1000	Error Code: 1046. No database selected Select the default DB to be used by double...	0.047 sec
2	19:48:28	use school_management	0 row(s) affected	0.000 sec
3	19:48:43	select * from teacher LIMIT 0, 1000	3 row(s) returned	0.016 sec / 0.000 sec

The 'SQLAdditions' pane on the right displays a message: "Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help."

## Creating Student Table

The screenshot displays the MySQL Workbench interface. The left sidebar shows the 'SCHEMAS' tree with 'school\_management' selected. The main editor shows a SQL script with the following content:

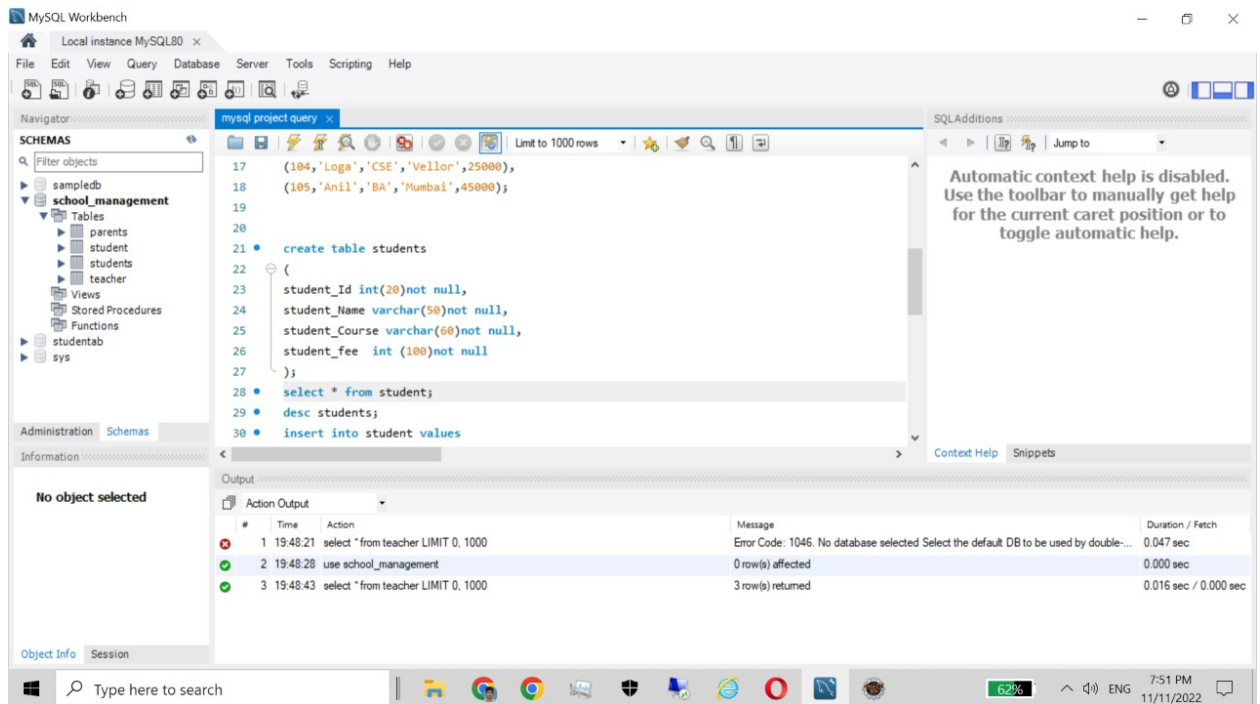
```
17 (104,'Loga','CSE','Vellor',25000),
18 (105,'Anil','BA','Mumbai',45000);
19
20
21 • create table students
22 (
23   student_id int(20)not null,
24   student_name varchar(50)not null,
25   student_course varchar(60)not null,
26   student_fee int (100)not null
27 );
28 • select * from student;
29 • desc students;
30 • insert into student values
```

The bottom panel shows the 'Output' tab with the following table:

#	Time	Action	Message	Duration / Fetch
1	19:48:21	select * from teacher LIMIT 0, 1000	Error Code: 1046. No database selected Select the default DB to be used by double...	0.047 sec
2	19:48:28	use school_management	0 row(s) affected	0.000 sec
3	19:48:43	select * from teacher LIMIT 0, 1000	3 row(s) returned	0.016 sec / 0.000 sec

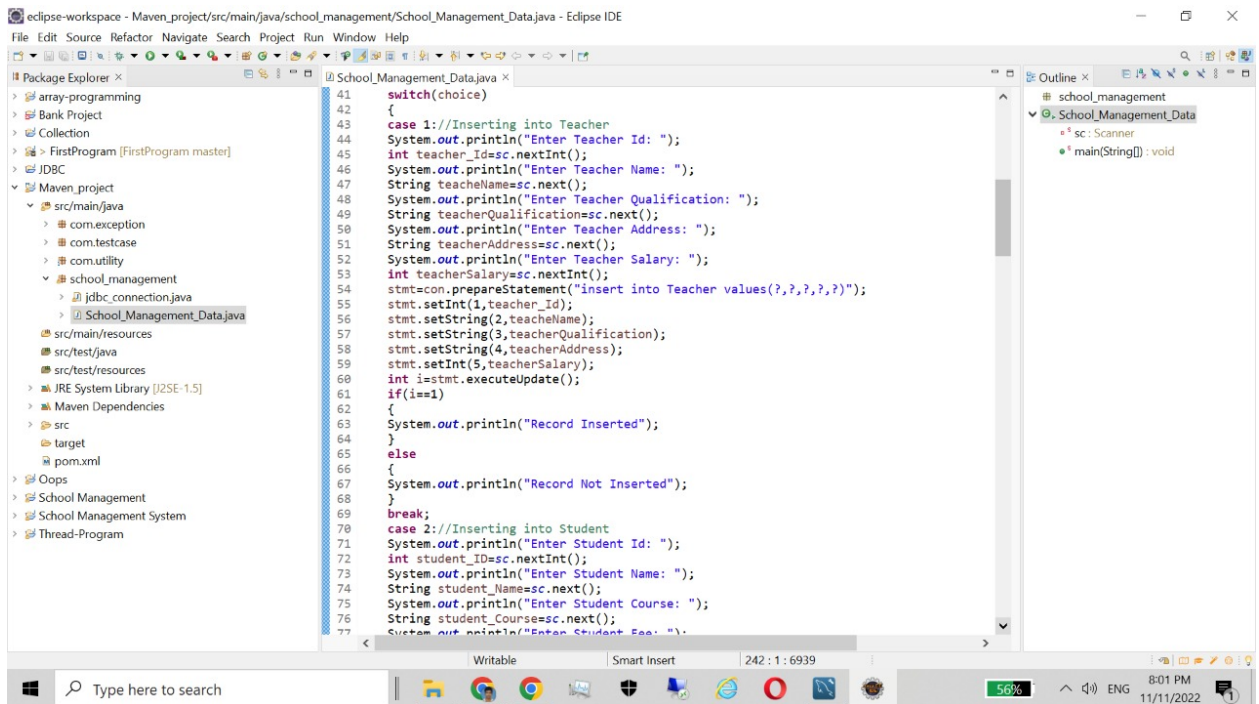
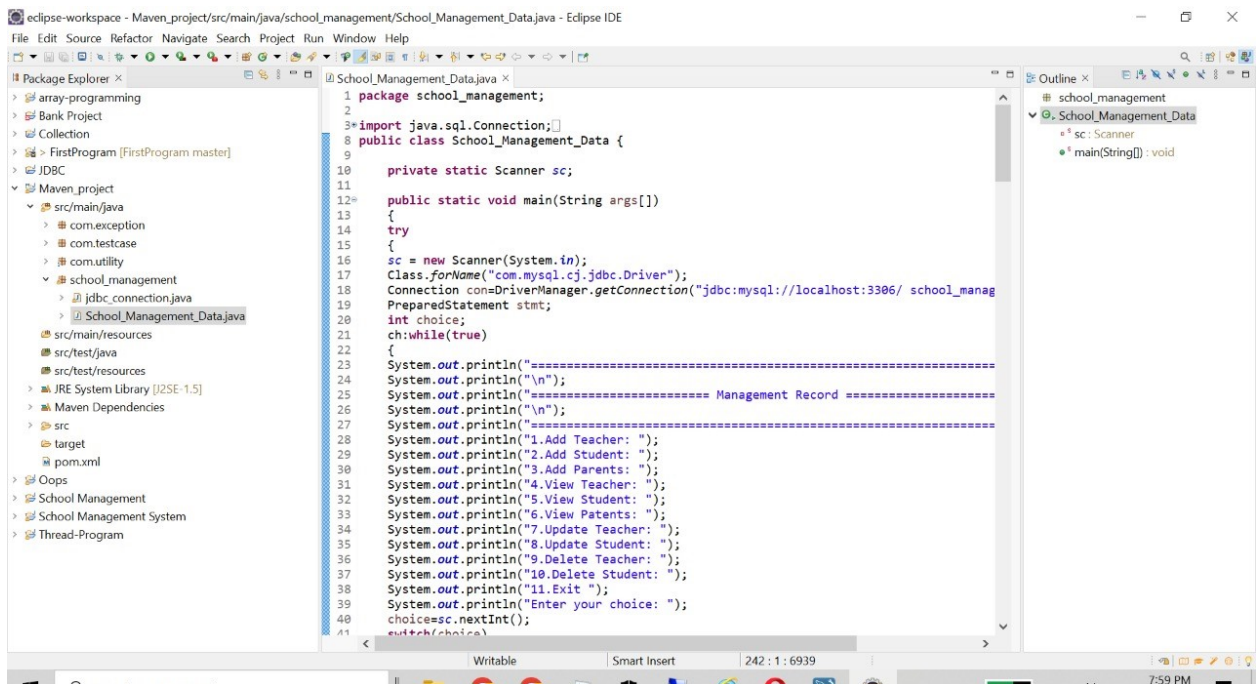
The right sidebar shows a message: "Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help."

## Creating Parent Table



Code :





eclipse-workspace - Maven\_project/src/main/java/school\_management/School\_Management\_Data.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer

- array-programming
- Bank Project
- Collection
- FirstProgram [FirstProgram master]
- JDBC
- Maven\_project
  - src/main/java
    - com.exception
    - com.testcase
    - com.utility
    - school\_management
      - jdbc\_connection.java
      - School\_Management\_Data.java
  - src/main/resources
  - src/test/java
  - src/test/resources
- JRE System Library [J2SE-1.5]
- Maven Dependencies
- src
- target
- pom.xml

- Oops
- School Management
- School Management System
- Thread-Program

School\_Management\_Data.java

```
74 String student_Name=sc.next();
75 System.out.println("Enter Student Course: ");
76 String student_Course=sc.next();
77 System.out.println("Enter Student Fee: ");
78 int student_fee=sc.nextInt();
79 stmt=con.prepareStatement("insert into Student values(?,?,?,?)");
80 stmt.setInt(1,student_ID);
81 stmt.setString(2,student_Name);
82 stmt.setString(3,student_Course);
83 stmt.setInt(4,student_fee);
84 int j=stmt.executeUpdate();
85 if(j==1)
86 {
87     System.out.println("Record Inserted");
88 }
89 else
90 {
91     System.out.println("Record Not Inserted");
92 }
93 break;
94 case 3://Inserting into Parents
95     System.out.println("Enter Parents Id: ");
96     int parents_Id=sc.nextInt();
97     System.out.println("Enter Parents Name: ");
98     String parents_Name=sc.next();
99     System.out.println("Enter parents Address: ");
100    String parents_Address=sc.next();
101    System.out.println("Enter Student FeePaid: ");
102    int parents_FeePaid=sc.nextInt();
103    stmt=con.prepareStatement("insert into parents values(?,?,?,?)");
104    stmt.setInt(1,parents_Id);
105    stmt.setString(2,parents_Name);
106    stmt.setString(3,parents_Address);
107    stmt.setInt(4,parents_FeePaid);
108    int l=stmt.executeUpdate();
109    if(l==1)
110    {
```

eclipse-workspace - Maven\_project/src/main/java/school\_management/School\_Management\_Data.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

Package Explorer

- array-programming
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- Collection
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- Maven\_project
  - src/main/java
    - com.exception
    - com.testcase
    - com.utility
    - school\_management
      - jdbc\_connection.java
      - School\_Management\_Data.java
  - src/main/resources
  - src/test/java
  - src/test/resources
- JRE System Library [J2SE-1.5]
- Maven Dependencies
- src
- target
- pom.xml

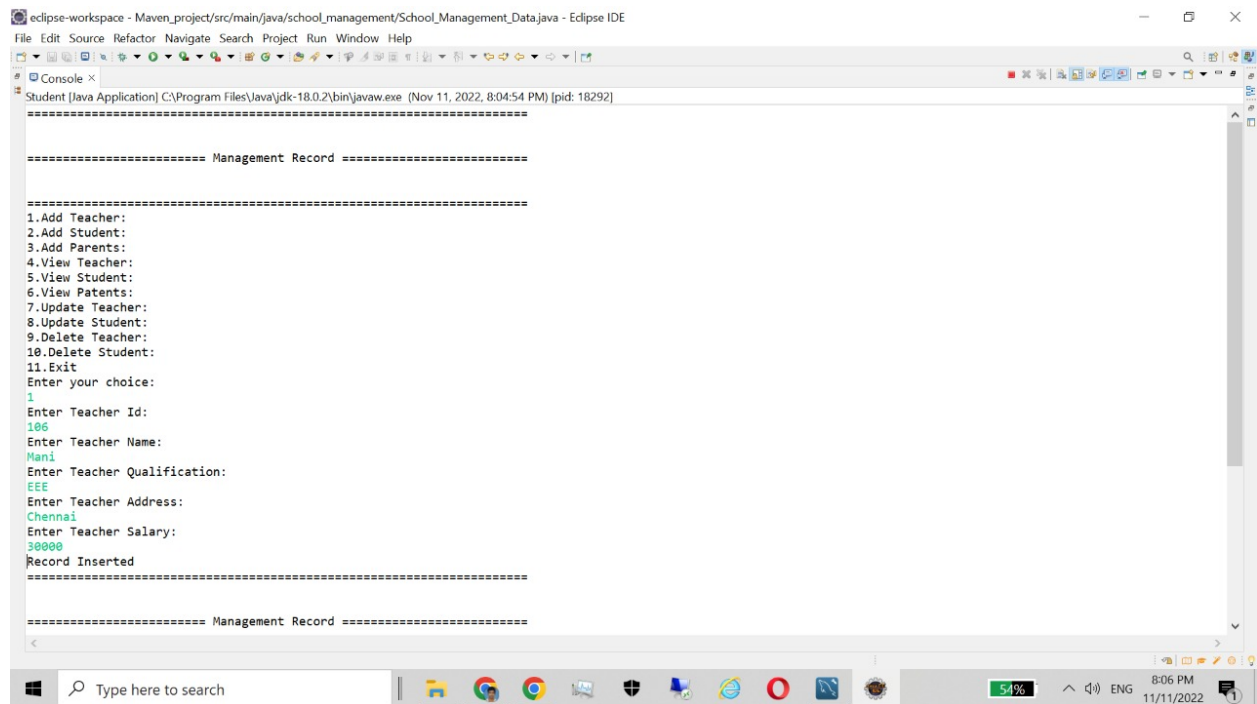
- Oops
- School Management
- School Management System
- Thread-Program

School\_Management\_Data.java

```
107 stmt.setInt(4,parents_FeePaid);
108 int l=stmt.executeUpdate();
109 if(l==1)
110 {
111     System.out.println("Record Inserted");
112 }
113 else
114 {
115     System.out.println("Record Not Inserted");
116 }
117 break;
118 case 4://View Teacher
119 stmt=con.prepareStatement("select * from Teacher");
120 ResultSet rs=stmt.executeQuery();
121 while(rs.next())
122 {
123     System.out.println("Teacher Id: "+rs.getInt(1));
124     System.out.println("Teacher Name: "+rs.getString(2));
125     System.out.println("Teacher Qualification: "+rs.getString(3));
126     System.out.println("Teacher Address: "+rs.getString(4));
127     System.out.println("Teacher Salary: "+rs.getInt(5));
128     System.out.println("\n");
129 }
130 break;
131 case 5://View Student
132 stmt=con.prepareStatement("select * from Student");
133 ResultSet rs1=stmt.executeQuery();
134 while(rs1.next())
135 {
136     System.out.println("Student Id: "+rs1.getInt(1));
137     System.out.println("Student Name: "+rs1.getString(2));
138     System.out.println("Student Course: "+rs1.getString(3));
139     System.out.println("Student Fee: "+rs1.getInt(4));
140     System.out.println("\n");
141 }
142 break;
143 case 6://View parents
```

# OUTPUT

## Output for Inserting



```
eclipse-workspace - Maven_project/src/main/java/school_management/School_Management_Data.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help

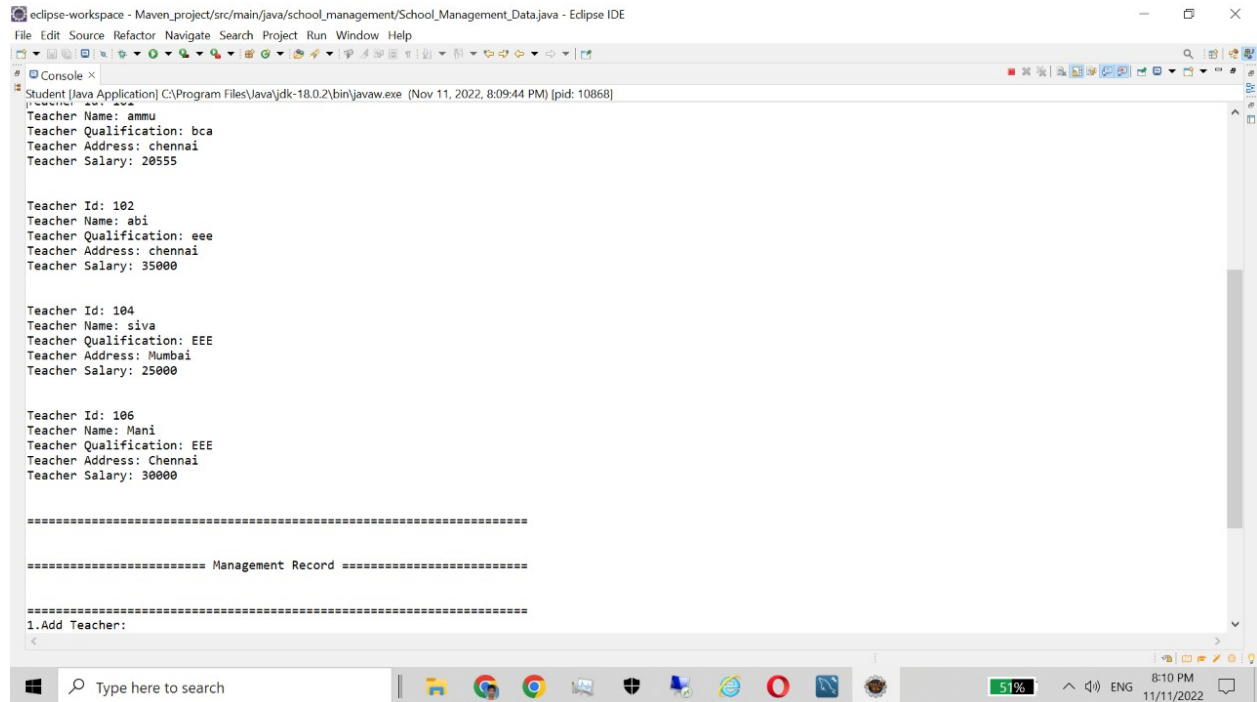
Student [Java Application] C:\Program Files\Java\jdk-18.0.2\bin\javaw.exe (Nov 11, 2022, 8:04:54 PM) [pid: 18292]

===== Management Record =====

1.Add Teacher:
2.Add Student:
3.Add Parents:
4.View Teacher:
5.View Student:
6.View Patents:
7.Update Teacher:
8.Update Student:
9.Delete Teacher:
10.Delete Student:
11.Exit
Enter your choice:
1
Enter Teacher Id:
106
Enter Teacher Name:
Mani
Enter Teacher Qualification:
EEE
Enter Teacher Address:
Chennai
Enter Teacher Salary:
30000
Record Inserted

===== Management Record =====
```

## Output for View table



The screenshot shows the Eclipse IDE interface with a Java application running. The console output displays teacher information for three teachers (Id: 102, 104, 106) and a menu titled "Management Record" with an option "1.Add Teacher:". The teacher data is as follows:

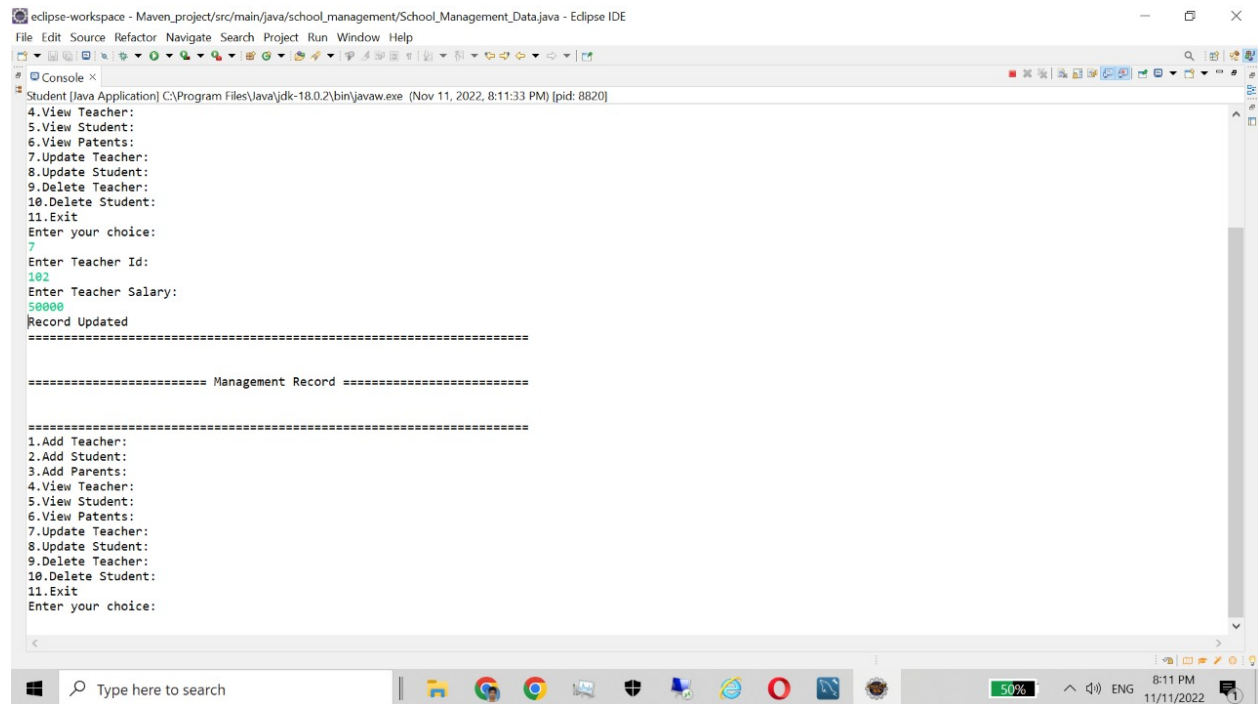
Teacher Id	Teacher Name	Teacher Qualification	Teacher Address	Teacher Salary
102	ammu	bca	chennai	20555
104	abi	eee	chennai	35000
106	siva	EEE	Mumbai	25000

The console output also includes a menu titled "Management Record" with the following options:

```
===== Management Record =====
1.Add Teacher:
```

The Eclipse IDE window title is "eclipse-workspace - Maven\_project/src/main/java/school\_management/School\_Management\_Data.java - Eclipse IDE". The console output is from a Java application running at "C:\Program Files\Java\jdk-18.0.2\bin\javaw.exe (Nov 11, 2022, 8:09:44 PM) [pid: 10868]". The Windows taskbar at the bottom shows the time as 8:10 PM on 11/11/2022.

## Output for Updating

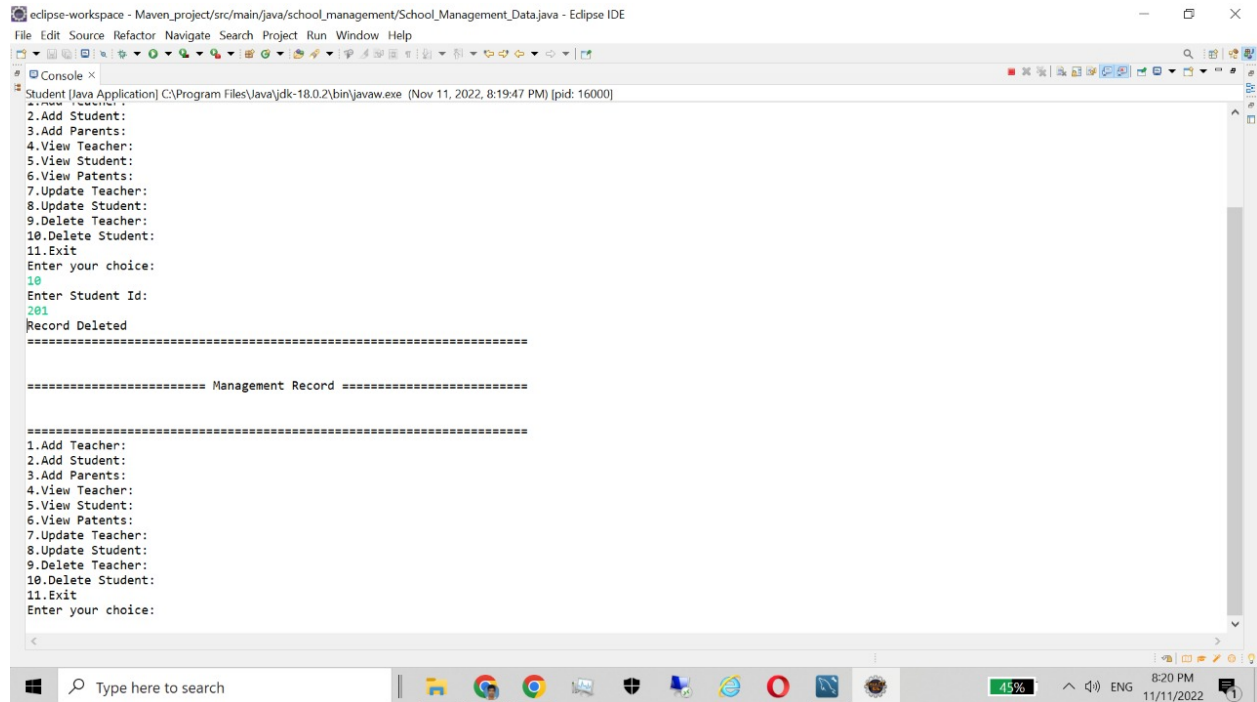


The screenshot shows the Eclipse IDE interface with a console window open. The console displays the output of a Java application running on a Windows system. The application is a school management system with various options for adding, viewing, updating, and deleting records. The user has selected option 7, 'Update Teacher', and entered '102' for the Teacher Id and '50000' for the Teacher Salary. The output shows 'Record Updated' followed by a separator line and a 'Management Record' section. The 'Management Record' section lists the same menu options as the initial prompt.

```
eclipse-workspace - Maven_project/src/main/java/school_management/School_Management_Data.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
# Console x
Student [Java Application] C:\Program Files\Java\jdk-18.0.2\bin\javaw.exe (Nov 11, 2022, 8:11:33 PM) [pid: 8820]
4.View Teacher:
5.View Student:
6.View Patents:
7.Update Teacher:
8.Update Student:
9.Delete Teacher:
10.Delete Student:
11.Exit
Enter your choice:
7
Enter Teacher Id:
102
Enter Teacher Salary:
50000
Record Updated
=====
===== Management Record =====
=====
1.Add Teacher:
2.Add Student:
3.Add Parents:
4.View Teacher:
5.View Student:
6.View Patents:
7.Update Teacher:
8.Update Student:
9.Delete Teacher:
10.Delete Student:
11.Exit
Enter your choice:
```

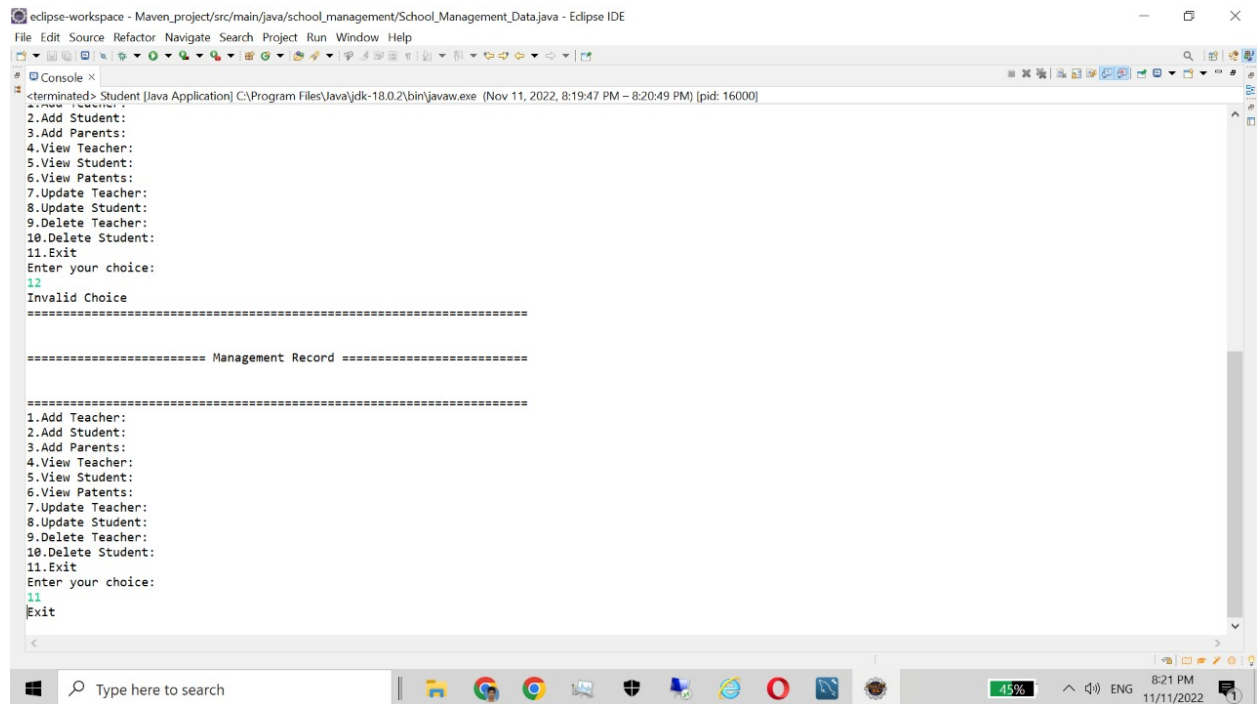
Windows taskbar at the bottom shows the search bar, taskbar icons, and system tray with a 50% battery level and the date 11/11/2022.

## Output for Deleting



```
eclipse-workspace - Maven_project/src/main/java/school_management/School_Management_Data.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
# Console x
Student [Java Application] C:\Program Files\Java\jdk-18.0.2\bin\javaw.exe (Nov 11, 2022, 8:19:47 PM) [pid: 16000]
1.Exit
2.Add Student:
3.Add Parents:
4.View Teacher:
5.View Student:
6.View Patents:
7.Update Teacher:
8.Update Student:
9.Delete Teacher:
10.Delete Student:
11.Exit
Enter your choice:
10
Enter Student Id:
201
Record Deleted
=====
===== Management Record =====
=====
1.Add Teacher:
2.Add Student:
3.Add Parents:
4.View Teacher:
5.View Student:
6.View Patents:
7.Update Teacher:
8.Update Student:
9.Delete Teacher:
10.Delete Student:
11.Exit
Enter your choice:
```

## Output for Exit



```
<terminated> Student [Java Application] C:\Program Files\Java\jdk-18.0.2\bin\javaw.exe (Nov 11, 2022, 8:19:47 PM - 8:20:49 PM) [pid: 16000]
2.Add Student:
3.Add Parents:
4.View Teacher:
5.View Student:
6.View Patents:
7.Update Teacher:
8.Update Student:
9.Delete Teacher:
10.Delete Student:
11.Exit
Enter your choice:
12
Invalid Choice
=====
===== Management Record =====
=====
1.Add Teacher:
2.Add Student:
3.Add Parents:
4.View Teacher:
5.View Student:
6.View Patents:
7.Update Teacher:
8.Update Student:
9.Delete Teacher:
10.Delete Student:
11.Exit
Enter your choice:
11
Exit
```

## Conclusion:

In the offline system, it is an overhead to keep the records related to faculty, student, parents, and other school staff on the papers. Everything related to their progress in the system is marked manually. My other aim is to minimize the paperwork as minimum as I can so that there is no need to cut more and more trees.

