



**ALL SAINT'S CHURCH SR.SEC.  
SCHOOL**

**M.I. ROAD , JAIPUR**

**A PROJECT REPORT ON  
SCHOOL MANAGEMENT SYSTEM**

**SUBJECT: INFORMATICS PRACTICES(065)**

**Session: 2023-2024**

**SUBMITTED BY-**

**Mohd. Shayyan**

**SUBMITTED TO-**

**Mrs. Sharon Amus**

# **ACKNOWLEDGMENT**

**I would like to express our special thanks of  
Gratitude to my teacher Mrs. Sharon Amus for  
Mentoring me for this project work. I also thank  
our principal Mrs. Shabnum Haque for her  
motivation and guidance.**

**My project is titled as School Management System and  
It enables me to do a lot of research and I came to  
Know about so many new things.**

**Secondly I would also like to thank our parents and  
friends who helped us a lot in finalizing this project  
Within the limited time frame.**

**Mohd. Shayyan**

**XII SCI**

## **CONTENT**

- 1. Introduction**
- 2. System Implementation**
- 3. Screenshots**
- 4. User Output**
- 5. SQL Queries**
- 6. User Interface Code**
- 7. Testing**
- 8. Bibliography**

## **INTRODUCTION**

**The “School Management System” undertaken as a project under IP is based on PYTHON AND MYSQL.**

**It's an attempt to automate the existing system.**

**The project enables its user to perform few operations pertaining to management of School.**

**The Project Enables its user to:**

- 1.) Add a new Student, new Staff and new Fee record's.**
- 2.) Delete Student, Staff and Fee record's.**
- 3.) Update Student, Staff and Fee record's.**
- 4.) View Student, Staff and Fee record's from the Database.**

## **System Implementation**

**The hardware used =>**

**| System |-----**

**Processor-**

**Intel(R) Core(TM) i5**

**7300U CPU 2.60GHz**

**2.71 GHz**

**Installed memory[RAM]- 8.00 GB(7.88 GB usable)**

**System Type-**

**64-bit operating system,**

**X64-based processor**

**Pen and Touch-**

**No pen or touch input is  
Available for this display**

## Screenshots

**PROJECT TITLE- “SCHOOL MANAGEMENT”**

**DBMS: MySQL**

**Host : localhost**

**User: root**

**Password: root**

**Database: School**

**Table Structure: As per the Screenshot given below:**

### **Table: Student**

```
mysql> Desc students;
+-----+-----+-----+-----+-----+-----+
| Field | Type   | Null | Key  | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Id    | varchar(255) | YES |       | NULL    |       |
| name  | varchar(255)  | YES |       | NULL    |       |
| age   | varchar(255)  | YES |       | NULL    |       |
| gender| varchar(255) | YES |       | NULL    |       |
| room_no| varchar(255) | YES |       | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.06 sec)
```

## Table: Staff

```
mysql> Desc Staff;
+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| Id    | varchar(50) | YES  |     | NULL    |       |
| post  | varchar(50)  | YES  |     | NULL    |       |
| name  | varchar(50)  | YES  |     | NULL    |       |
| salary| varchar(50) | YES  |     | NULL    |       |
| phone | varchar(50) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

## Table: Fee

```
mysql> Desc fee;
+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| SrNo  | varchar(50) | YES  |     | NULL    |       |
| Name  | varchar(50) | YES  |     | NULL    |       |
| Class | varchar(50) | YES  |     | NULL    |       |
| Status| varchar(50) | YES  |     | NULL    |       |
| Quarter | varchar(50) | YES  |     | NULL    |       |
| PaidAmt | varchar(50) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

# USER OUTPUT

## STUDENT DETAILS:

---| Modules in School Management System |---

[1.]->| Student record Module |  
[3.]->| Fee record Module |

[2.]->| Staff record Module |  
[4.]->| Exit |

Enter your choice: 1

[1.]->| Add New Student record |  
[3.]->| Update Student details |

[2.]->| View Student details |  
[4.]->| Delete Student details |

Enter your choice:

## STAFF DETAILS:

---| Modules in School Management System |---

[1.]->| Student record Module |  
[3.]->| Fee record Module |

[2.]->| Staff record Module |  
[4.]->| Exit |

Enter your choice: 2

[1.]->| Add New Staff record |  
[3.] ->| Update Staff details |

[2.]->| View Staff details |  
[4.]->| Delete Staff details |

Enter your choice:

## FEE DETAILS:

---| Modules in School Management System |---

[1.]->| Student record Module |  
[3.]->| Fee record Module |

[2.]->| Staff record Module |  
[4.]->| Exit |

Enter your choice: 3

[1.]->| Add Fee deposit details |  
[3.]->| Update Fee datails |  
Enter your choice:

[2.]->| View Fee datails |  
[4.]->| Delete Fee datails |

## EXIT DETAILS:

---| Modules in School Management System |---

[1.]->| Student record Module |  
[3.]->| Fee record Module |

[2.]->| Staff record Module |  
[4.]->| Exit |

Enter your choice: 4

Exited !  
Succesfully,  
Thanks  
For  
Coming :-)

## **SQL QUERIES**

**Create database school;**

**use school;**

**CREATE TABLE students (Id VARCHAR(255),name  
VARCHAR(255), age VARCHAR(255), gender  
VARCHAR(255), room\_no VARCHAR(255));**

**Desc students;**

**use school;**

**create table Staff(Id varchar(50),post varchar(50),  
name varchar(50),salary varchar(50),phone  
varchar(50))**

**Desc Staff;**

**use school;**

**create table fee(SrNo varchar(50),Name  
varchar(50),Class varchar(50),Status varchar(50),  
Quarter varchar(50),PaidAmt varchar(50));**

**Desc fee;**

# USER INTERFACE CODE

```
print('*' * 130)

print("          ---| Welcome to School Management System by Shayyan|---\n")
print('*' * 130)

# Connecting from the server

user_name=input("\n ENTER MYSQL SERVER'S USERNAME: ")

print('*'*130)

password=input(" ENTER MYSQL SERVER'S PASSWORD: ")

print('*'*130)

print()
print("          ---| Modules in School Management System |---")
print()

print("[1.]->| Student record Module |           [2.]->| Staff record Module |")
print("[3.]->| Fee record Module |           [4.]->| Exit |           \n")

# Get the user's choice:

# if option first:

def getchoice():

    while True:

        menu()

        print("\n\n")

        option = input("Enter your choice: ")
```

```
if option=='1':  
    print("\n[1.]->| Add New Student record | [2.]->| View Student details |")  
    print("[3.]->| Update Student details | [4.]->| Delete Student details \n")  
    opp = input("Enter your choice: ")  
  
    if opp=='1':  
        add_student()  
        input("Press ENTER KEY to continue.....")  
        print()  
  
    elif opp=='2':  
        view_students()  
        input("Press ENTER KEY to continue.....")  
        print()  
  
    elif opp=='3':  
        update_student()  
        input("Press ENTER KEY to continue.....")  
        print()  
  
    elif opp=='4':  
        delete_student()  
        input("Press ENTER KEY to continue.....")  
        print()
```

```

## if option Second:

elif option=='2':

    print("[1.]->| Add New Staff record | [2.]->| View Staff details | ")
    print("[3.] ->| Update Staff details | [4.]->| Delete Staff details | ")

    opp =input("Enter your choice: ")

if opp=='1':

    add_staff()

    input("Press ENTER KEY to continue.....")

    print()

elif opp=='2':

    view_staff()

    input("Press ENTER KEY to continue.....")

    print()

elif opp=='3':

    update_staff()

    input("Press ENTER KEY to continue.....")

    print()

```

```
elif opp=='4':  
  
    delete_staff()  
  
    input("Press ENTER KEY to continue.....")  
  
    print()  
  
  
### if option Third:  
  
elif option=='3':  
  
    print("[1.]->| Add Fee deposit details | [2.]->| View Fee datails | ")  
  
    print("[3.]->| Update Fee datails | [4.]->| Delete Fee datails | ")  
  
    opp = input("Enter your choice: ")  
  
  
if opp=='1':  
  
    fee()  
  
    input("Press ENTER KEY to continue.....")  
  
    print()  
  
elif opp=='2':  
  
    view_fee()  
  
    input("Press ENTER KEY to continue.....")  
  
    print()  
  
  
elif opp=='3':  
  
    update_fee()  
  
    input("Press ENTER KEY to continue.....")  
  
    print()
```

```
elif opp=='4':  
    delete_fee()  
    input("Press ENTER KEY to continue.....")  
    print()  
  
#### if option Fourth:  
elif option=='4':  
    print()  
    print("Exited !")  
    print("Succesfully,")  
    print("Thanks")  
    print("For")  
    print("Coming :-)")  
    print()  
    print()  
    print()  
    print()  
    break
```

# ADD STUDENT RECORD

```
# Define the function to add a new student

def add_student():

    while True:

        Id=input("Enter Student SrNo: ")

        if serbyId(Id)> 0 :

            print("Duplicate Id, ENTER A VALID ID")

        else:

            break

        name = input("Enter student Name: ")

        age = input("Enter student DOB: ")

        gender = input("Enter student gender: ")

        room_no = input("Enter student Class: ")

        cursor = mydb.cursor()

# CREATING A TABLE

cursor.execute('CREATE TABLE students (Id VARCHAR(255),name VARCHAR(255),
VARCHAR(255), gender VARCHAR(255), room_no VARCHAR(255))')

# Inserting Values

sql = "INSERT INTO students (Id,name, age, gender, room_no) VALUES (%s,%s, %s, %s, %s)"

val = (Id,name, age, gender, room_no)

cursor.execute(sql, val)

mydb.commit()

print(cursor.rowcount, "record(s) inserted.")
```

## DELETE STUDENT RECORD

```
# Define the function to delete student details

def delete_student():

    Id = input("Enter student SrNo: ")

    cursor = mydb.cursor()

    sql = "DELETE FROM students WHERE Id = %s"

    val = (Id,)

    cursor.execute(sql, val)

    mydb.commit()

    print(cursor.rowcount, "record(s) deleted.")
```

## VIEW STUDENT RECORD

```
# Define the function to view student details

def view_students():

    cursor = mydb.cursor()

    cursor.execute("SELECT * FROM students")

    result = cursor.fetchall()

    for row in result:

        print(row)
```

## UPDATE STUDENT RECORD

```
# Define the function to update student details

def update_student():

    id = input("Enter student SrNo: ")

    name = input("Enter student Name: ")

    age = input("Enter student DOB: ")

    gender = input("Enter student gender: ")

    room_no = input("Enter student Class: ")

    cursor = mydb.cursor()

    sql = "UPDATE students SET name = %s, age = %s, gender = %s, room_no = %s WHERE id = %s"

    val = (name, age, gender, room_no, id)

    cursor.execute(sql, val)  mydb.commit()  print(cursor.rowcount, "record(s) updated.")
```

## ADD STAFF RECORD

```
# Define the function to add a new staff

def add_staff():

    Id=input("Enter staff ID: ")

    post=input("Enter staff Post: ")

    name = input("Enter staff Name: ")

    salary = input("Enter staff Salary: ")

    phone = input("Enter staff Phone no: ")

    cursor = mydb.cursor()
```

```

# CREATING A TABLE

# cursor.execute('create table Staff(Id varchar(50),post varchar(50),name varchar(50),salary
varchar(50),phone varchar(50))')

# Inserting Values

sqls = "INSERT INTO staff (Id,post,name,salary,phone) VALUES (%s,%s,%s, %s, %s)"

vals = (Id,post,name,salary,phone)

cursor.execute(sqls, vals)

mydb.commit()

print(cursor.rowcount, "record(s) inserted.")

```

## UPDATE STAFF RECORD

```

# Define the function to update staff details

def update_staff():

    Id=input("Enter staff ID: ")

    post=input("Enter staff Post: ")

    name = input("Enter staff Name: ")

    salary = input("Enter staff Salary: ")

    phone = input("Enter staff Phone no: ")

    cursor = mydb.cursor()

    sql = "UPDATE staff SET post= %s, name = %s, salary = %s, phone = %s WHERE Id = %s"

    val = (Id,post,name,salary, phone)

    cursor.execute(sql, val)

    mydb.commit()

    print(cursor.rowcount, "record(s) updated.")

```

## DELETE STAFF RECORD

```
# Define the function to delete staff details

def delete_staff():

    Id = input("Enter staff ID: ")

    cursor = mydb.cursor()

    sql = "DELETE FROM staff WHERE Id = %s"

    val = (Id,)

    cursor.execute(sql, val)

    mydb.commit()  print(cursor.rowcount, "record(s) deleted.")
```

## VIEW STAFF RECORD

```
# Define the function to view student details

def view_staff():

    cursor = mydb.cursor()

    cursor.execute("SELECT * FROM staff")

    result = cursor.fetchall()

    for row in result:

        print(row)
```

# ADD FEE RECORD

```
# Define the function to add Fee details

def fee():

    SrNo=input("Enter Payer SrNo: ")

    Name = input("Enter Payer Name: ")

    Class = input("Enter Payer Class: ")

    Status= input("Enter Status(Paid/Due) : ")

    Quarter= input("Enter Quarter : ")

    PaidAmt= input("Enter PaidAmt : ")

    cursor = mydb.cursor()

# CREATING A TABLE

    cursor.execute('create table fee(SrNo varchar(50),Name varchar(50),Class varchar(50),Status
    varchar(50),Quarter varchar(50),PaidAmt varchar(50))')

# Inserting Values

    msql = "INSERT INTO fee (SrNo,Name,Class,Status,Quarter,PaidAmt) VALUES (%s,%s, %s, %s,
    %s,%s)"

    valu = (SrNo,Name,Class,Status,Quarter,PaidAmt)

    cursor.execute(msql, valu)

    mydb.commit()

    print(cursor.rowcount, "record(s) inserted.")
```

## UPDATE FEE RECORD

```
# Define the function to update Fee details

def update_fee():

    SrNo = input("Enter student SrNo: ")

    Name = input("Enter student Name: ")

    Class = input("Enter student Class: ")

    Status = input("Enter student Status(Paid/Due): ")

    Quarter = input("Enter student Quarter: ")

    PaidAmt = input("Enter student PaidAmt: ")

    cursor = mydb.cursor()

    sqlx = "UPDATE fee SET Name = %s, Class = %s, Status = %s, Quarter = %s, PaidAmt = %s WHERE

    SrNo = %s

    valx = (Name,Class,Status,Quarter,PaidAmt,SrNo)

    cursor.execute(sqlx, valx)

    mydb.commit()

    print(cursor.rowcount, "record(s) updated.")
```

## VIEW FEE RECORD

```
# Define the function to view Fee details

def view_fee():

    cursor = mydb.cursor()

    cursor.execute("SELECT * FROM fee")

    result = cursor.fetchall()

    for row in result:

        print(row)
```

## DELETE FEE RECORD

```
# Define the function to delete Fee details

def delete_fee():

    SrNo = input("Enter student SrNo: ")

    cursor = mydb.cursor()

    sqle = "DELETE FROM fee WHERE SrNo = %s"

    vale = (SrNo,)

    cursor.execute(sqle, vale) mydb.commit() print(cursor.rowcount, "record(s) deleted.")
```

# **TESTING**

**Software testing is an empirical investigation conducted to provide stakeholders with information**

**About the quality of the product or service under test, with respect to the context in which it is**

**Intended to operate.** Software testing also provides an, independent view of the software to allow

The business to appreciate and understand the risk at implementation of the software.

Test techniques include, but are not limited to the process of executing a programme or Application with the intent of finding software bugs.

It can also be stated as the process of validating and verifying that a software programme/ Application / product meets the business and technical requirements that guided the its design and development, so that it works as expected and can be implemented with the same characteristics. Software testing, depending on the testing method employed, can be implemented at anytime in the development process however the most test effort is employed after the requirements have been defined and coding process has been completed.

# **BIBLIOGRAPHY**

- **Google for Research**
- **www.wikipedia.com**
- **www.geeksforgeeks.org**