

# **STUDENT DBMS MYSQL-PYTHON PROJECT**

**By**

**Giridharan S (22ITR025)**

**Ashoknirmal P S (22ITR009)**

**Bharath M (22ITR012)**

# ABSTRACT

- The Student DBMS Python Project is a holistic solution designed to manage student information using an intuitive Python interface. This report delineates the project's origins, goals, and essential features.
- With its user-friendly design and robust functionality, the project efficiently manages student databases, simplifying complexities and meeting the demand for streamlined organization in diverse educational domains.

# INTRODUCTION

```
graph TD; A[INTRODUCTION] --> B[Efficiency]; A --> C[Automation]; A --> D[User-Friendly]; B --> B1[Simplify data entry and modification, enhancing overall system efficiency for streamlined student details and information management.]; C --> C1[Automate GPA and CGPA calculations, ensuring accurate and hassle-free academic assessments for precise performance evaluation.]; D --> D1[Navigate through intuitive CRUD operations, promoting user-friendly interactions for effective and organized data management.];
```

## Efficiency

Simplify data entry and modification, enhancing overall system efficiency for streamlined student details and information management.

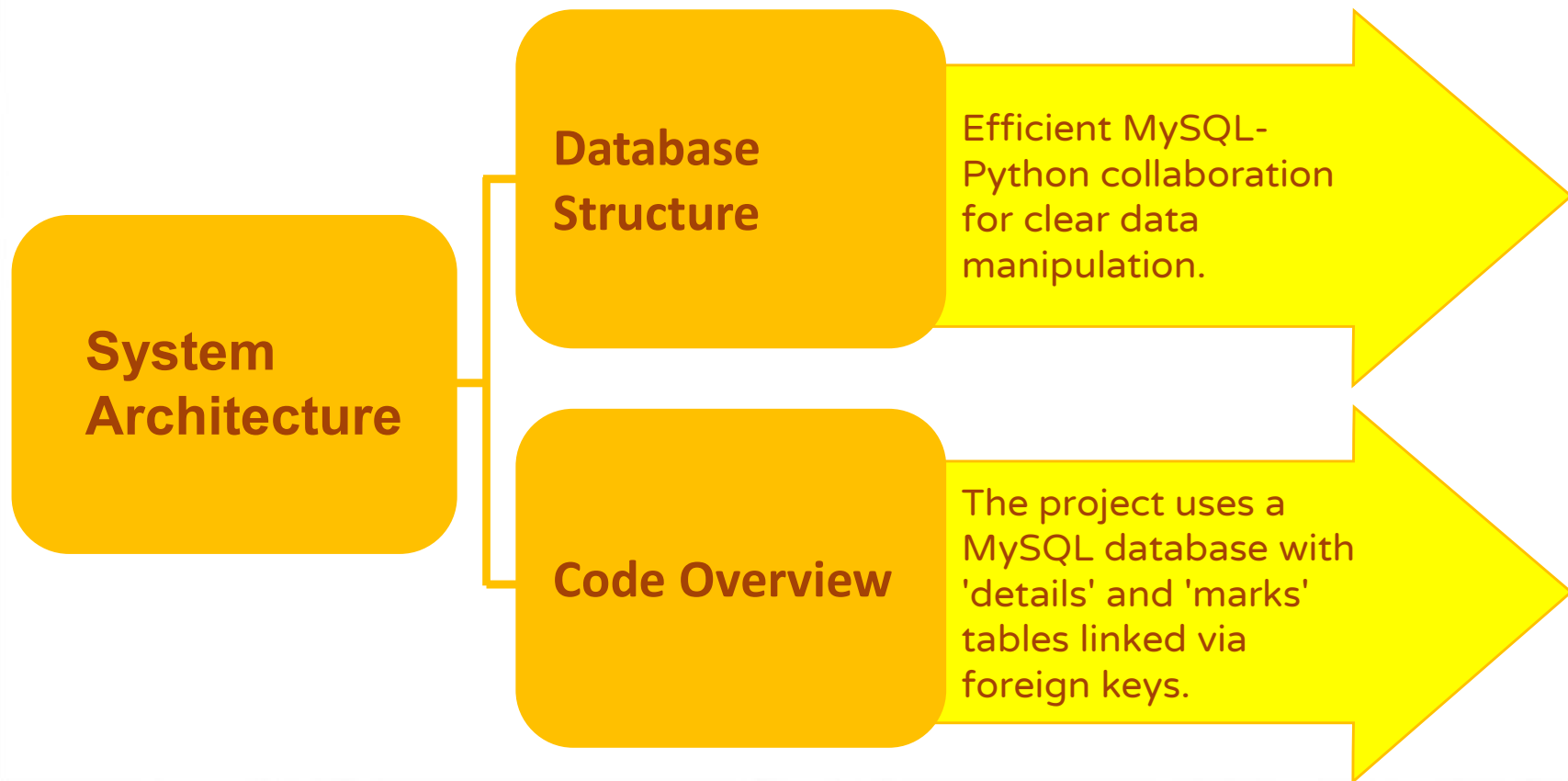
## Automation

Automate GPA and CGPA calculations, ensuring accurate and hassle-free academic assessments for precise performance evaluation.

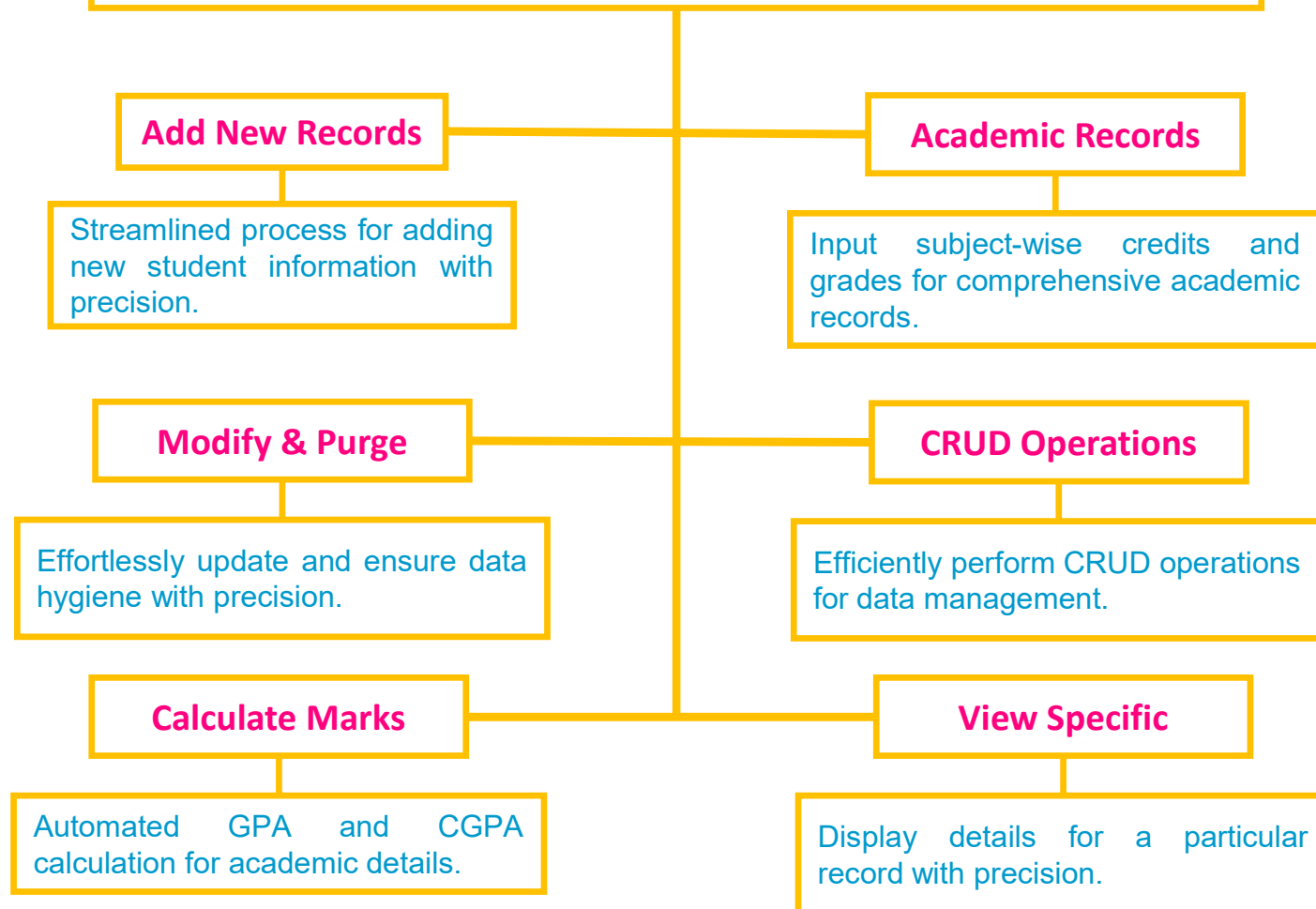
## User-Friendly

Navigate through intuitive CRUD operations, promoting user-friendly interactions for effective and organized data management.

# Student DBMS



# Features and Functionalities



# PYTHON – MYSQL CODE :

## ACADEMIC.py

```
1 import mysql.connector
2 from prettytable import PrettyTable
3 from tabulate import tabulate
4 try:
5     mydb = mysql.connector.connect(host="localhost",user="root",password="*****",database="stu")
6     cursor = mydb.cursor()
7 except mysql.connector.Error as err:
8     print(f"Error in connection: {err}")
9 def create_table():
10     cursor.execute("""
11         create table if not exists marks (
12             Roll_Number INT PRIMARY KEY,
13             Name VARCHAR(255),Subject_1 VARCHAR(50),
14             Subject_2 VARCHAR(50),Subject_3 VARCHAR(50),
15             Subject_4 VARCHAR(50),Subject_5 VARCHAR(50),
16             Subject_6 VARCHAR(50),Total_Credits INT,
17             GPA FLOAT,CGPA FLOAT,Outcome VARCHAR(10))
18     """)
```

## PERSONAL.py



```
1  import mysql.connector as mc
2  from prettytable import PrettyTable
3  mydb = mc.connect(host = "localhost",user = "root",password = "*****",database = "stu")
4  cur = mydb.cursor()
5  table_name = "details"
6  global x
7  x=1
8  def option(s):
9      match s:
10         case '1':
11             insert_row()
12         case '2':
13             print("(1) All Details ")
14             print("(2) Particular Details ")
15             opt = input('Enter your choice : ')
16             if opt == '1':
17                 show_all()
18             elif opt == '2':
19                 show_particular(input("Enter Roll Number to search : "))
20             else:
21                 print("Invalid choice.")
```

## MAIN.py

```
1  import personalinfo as per
2  import academic as aca
3  while True:
4      print("(1) Personal Details")
5      print("(2) Academic Details")
6      print("(3) Display all details")
7      print("(4) Display report for single data \n")
8      s=input("Enter any one Option : ")
9      print("\n")
10     if s=='1':
11         per.choose()
12     elif s=='2':
13         aca.fin()
14     elif s=='3':
15         per.show_all()
16         aca.display_all_records()
17     elif s=='4':
18         r=input("Enter Roll number to search : ")
19         per.show_particular(r)
20         aca.display_data1(r)
21     else:
22         print("Please Enter a valid Input.")
```



# OUTPUT OF THE PROJECT

## RECORD FOR ALL STUDENTS

- (1) Personal Details
- (2) Academic Details
- (3) Display all details
- (4) Display report for single data

Enter any one Option : 3

Personal Details :

Roll Number	Name	Gender	Date Of Birth	Mobile Number	Email Id	Department	Year of Study
9	Ashok	Male	31-08-2004	9641202574	ashok31@gmail.com	FT	3
12	Bharath	Male	26-05-2004	9561526165	bharathm12@gmail.com	ECE	3
24	Elakiya	Female	08-07-2006	9867317261	elakiyae16@gmail.com	IT	1
25	Giridharan	Male	05-07-2005	9361609946	giridharans575@gmail.com	IT	2
29	Meera	Female	03-10-2004	9639077838	meerag78@gmail.com	EEE	3
32	Vishal	Male	17-01-2005	9102898459	vishalk42@gmail.com	EIE	2
40	Priya	Female	09-05-2005	8655594107	priyal29@gmail.com	CSE	2
44	Nithya	Female	26-04-2005	9787224420	nithyak25@gmail.com	ECE	2

Academic Details :

Roll Number	Name	Subject 1	Subject 2	Subject 3	Subject 4	Subject 5	Subject 6	Total Credits	GPA	CGPA	Outcome
9	Ashok	4,b+	4,b+	4,b+	4,b+	4,b+	4,b+	24	7.0	6.37	Pass
12	Bharath	1,a	1,a	1,a	1,a	1,a	1,a	6	8.0	8.5	Pass
24	Elakiya	5,b	5,b	4,b	5,u	4,b	5,b	28	6.0	7.17	Arrear
25	Giridharan	4,b+	4,b+	4,b+	4,b+	4,b+	4,b+	24	7.0	6.37	Pass
29	Meera	3,b+	4,a	3,a	4,a	4,a	3,a+	21	7.96	8.08	Pass
32	Vishal	4,b+	4,b+	4,b+	4,b+	4,b+	4,b+	24	7.0	6.37	Pass
40	Priya	1,a	1,a	1,a	1,a	1,a	1,a	6	8.0	8.5	Pass
44	Nithya	3,a	4,u	4,c	4,b+	3,a+	4,b+	22	5.59	7.17	Arrear

- (1) Personal Details
- (2) Academic Details
- (3) Display all details
- (4) Display report for single data

# RECORD FOR ONE STUDENT

Enter any one Option : 4

Enter Roll number to search : 25

Roll Number	Name	Gender	Date Of Birth	Mobile Number	Email Id	Department	Year of Study
25	Giridharan	Male	05-07-2005	9361609946	giridharans575@gmail.com	IT	2

Total Credits	24
Subject 1	4,b+
Subject 2	4,b+
Subject 3	4,b+
Subject 4	4,b+
Subject 5	4,b+
Subject 6	4,b+
Current Semester GPA	7.0
CGPA up to Current Semester	6.37
Pass/Fail	Pass

- (1) Personal Details
- (2) Academic Details
- (3) Display all details
- (4) Display report for single data

# RECORD FOR PERSONAL DETAILS

```
(1) Insert New Data
(2) Display
(3) Update
(4) Delete
(5) Exit
Enter your option: 2
(1) All Details
(2) Particular Details
Enter your choice : 1
```

Personal Details :

Roll Number	Name	Gender	Date Of Birth	Mobile Number	Email Id	Department	Year of Study
9	Ashok	Male	31-08-2004	9641202574	ashok31@gmail.com	FT	3
12	Bharath	Male	26-05-2004	9561526165	bharathm12@gmail.com	ECE	3
24	Elakiya	Female	08-07-2006	9867317261	elakiyae16@gmail.com	IT	1
25	Giridharan	Male	05-07-2005	9361609946	giridharans575@gmail.com	IT	2
29	Meera	Female	03-10-2004	9639077838	meerag78@gmail.com	EEE	3
32	Vishal	Male	17-01-2005	9102898459	vishalk42@gmail.com	EIE	2
40	Priya	Female	09-05-2005	8655594107	priyal29@gmail.com	CSE	2
44	Nithya	Female	26-04-2005	9787224420	nithyak25@gmail.com	ECE	2

```
(1) Insert New Data
(2) Display
(3) Update
(4) Delete
(5) Exit
Enter your option: 2
(1) All Details
(2) Particular Details
Enter your choice : 1
```

Personal Details :

Roll Number	Name	Gender	Date Of Birth	Mobile Number	Email Id	Department	Year of Study
9	Ashok	Male	31-08-2004	9641202574	ashok31@gmail.com	FT	3
12	Bharath	Male	26-05-2004	9561526165	bharathm12@gmail.com	ECE	3
24	Elakiya	Female	08-07-2006	9867317261	elakiyae16@gmail.com	IT	1
25	Giridharan	Male	05-07-2005	9361609946	giridharans575@gmail.com	IT	2
29	Meera	Female	03-10-2004	9639077838	meerag78@gmail.com	EEE	3
32	Vishal	Male	17-01-2005	9102898459	vishalk42@gmail.com	EIE	2
40	Priya	Female	09-05-2005	8655594107	priyal29@gmail.com	CSE	2
44	Nithya	Female	26-04-2005	9787224420	nithyak25@gmail.com	ECE	2

# RECORD FOR ACADEMIC DETAILS

Enter any one option: 4

Academic Details :

Roll Number	Name	Subject 1	Subject 2	Subject 3	Subject 4	Subject 5	Subject 6	Total Credits	GPA	CGPA	Outcome
9	Ashok	4,b+	4,b+	4,b+	4,b+	4,b+	4,b+	24	7.0	6.37	Pass
12	Bharath	1,a	1,a	1,a	1,a	1,a	1,a	6	8.0	8.5	Pass
24	Elakiya	5,b	5,b	4,b	5,u	4,b	5,b	28	6.0	7.17	Arrear
25	Giridharan	4,b+	4,b+	4,b+	4,b+	4,b+	4,b+	24	7.0	6.37	Pass
29	Meera	3,b+	4,a	3,a	4,a	4,a	3,a+	21	7.96	8.08	Pass
32	Vishal	4,b+	4,b+	4,b+	4,b+	4,b+	4,b+	24	7.0	6.37	Pass
40	Priya	1,a	1,a	1,a	1,a	1,a	1,a	6	8.0	8.5	Pass
44	Nithya	3,a	4,u	4,c	4,b+	3,a+	4,b+	22	5.59	7.17	Arrear

- (1) Insert New Data
- (2) Update Existing Data
- (3) Display Particular Record
- (4) Display all Records
- (5) Delete Record by Roll Number
- (6) Exit

Enter any one option: 3

Enter Roll Number: 44

Roll Number	44
Name	Nithya
Total Credits	22
Subject 1	3,a
Subject 2	4,u
Subject 3	4,c
Subject 4	4,b+
Subject 5	3,a+
Subject 6	4,b+
Current Semester GPA	5.59
CGPA up to Current Semester	7.17
Pass/Fail	Arrear

# CONCLUSION

- ❑ The "Student Database Management System" enhances record management efficiency. It automates academic assessments, ensuring accurate GPA and CGPA calculations.
- ❑ With user-friendly CRUD operations, it simplifies data interactions and organized information management for both personal and academic records.





**Thank You !**