

Computer Department Student Management System

The Computer Department Student Management System is a software tool that helps make the admin tasks in the department easier and more organized. It is mainly used by an Admin, who handles student, course, and grade records.

The system is divided into three main parts:

- Manage Student – For adding, updating, searching, and deleting student information.
- Manage Courses – For handling course details like adding new courses, updating them, or removing them.
- Manage Grades – For entering, saving, and calculating student grades, as well as viewing and printing rf.

Note: The recorded demo video was uploaded to Google Drive because the file size is too large to upload directly. Please check the shared link for access.

Drive Link:

https://drive.google.com/drive/folders/1zBFliPhqKaWQ3VFdPQ5brQdNTBthmEBX?usp=drive_link

Modules and Functionalities:

1. Manage Student

The Admin can:

- Fill Student Info – Input student details into the system.
- Save Student Info – Save the filled student information .
- Search Student – Look up existing student records.
- Update Student Info – Modify existing student information.
- Delete Student – Remove student records from the system.
- Undo Changes – Revert unsaved changes made during the management process.
- Log-out – Exit the system.

COMPUTER DEPARTMENT STUDENT MANAGEMENT SYSTEMS

Student

Course

Grades

Student's ID

Student's Name

Course

Year & Section

Sex

Date of Birth

Address

Email

Phone Number

Father's Name

Mother's Name

Search Student

Search

Refresh

ID	Name	Course	Year & S.	Sex	Date of B.	Address	Email	Phone N.	Father's	Mother's
2020-10...	Catherm...	BS Com...	3-C	Female	2002-03...	Lapaz, B...	cat.lm@...	0921345...	Mark Lim	Julia Lim
2020-11...	Jake Me...	BS Infor...	4-A	Male	2001-07...	Baranga...	jake.me@...	0918345...	Paolo M...	Tina Me...
2020-11...	Paula Cr...	BS Com...	1-B	Female	2004-03...	Baranga...	paula.cr@...	0917123...	Fernand...	Margarit...
2020-12...	Tina Kim	BS Com...	4-B	Female	2001-09...	Leganes...	tina.kim@...	0921345...	Sammuel	Rachel K...
2020-12...	Charlie	BS Infor...	3-A	Male	2002-09...	Lapez, B...	charlie.c...	0921345...	Fernand...	Margarit...
2020-13...	Juanito	BS Infor...	4-A	Male	2001-11...	Baranga...	juanito.y...	0921345...	Javier Yao	Grace Y...
2020-14...	Paula Zh...	BS Infor...	4-B	Female	2001-12...	Sta. Bar...	paula.zh@...	0908456...	Gilbert Z...	Marlene
2021-10...	Ella Dela...	BS Com...	4-B	Female	2001-09...	Arevalo...	ella.dcf@...	0908123...	Romme	Ava Del...
2021-11...	Isabella	BS Com...	1-C	Female	2004-01...	City Pro...	isa.reves...	0917123...	Luis Rey...	Celia Re...
2021-11...	Nina Per...	BS Com...	1-A	Female	2004-04...	Zarraga...	nina.per@...	0918234...	Luis Perez	Celia Per...
2021-12...	Sam Joh...	BS Infor...	2-A	Male	2003-07...	Baranga...	sam.joh@...	0917367...	John Joh...	Mary Joh...
2021-12...	Adam R...	BS Infor...	1-A	Male	2004-04...	Villa Are...	adam.re@...	0917123...	Juan Rey...	Ana Rey...
2021-12...	Eduardo...	BS Com...	4-B	Male	2001-08...	Arevalo...	eduardo...	0908123...	Victor T...	Sophia ...
2021-13...	Isabel R...	BS Infor...	1-C	Female	2004-02...	City Pro...	isabel.re...	0917234...	Luis Rey...	Mina Re...
2021-13...	Mark Lo...	BS Infor...	1-A	Male	2004-07...	Baranga...	mark.lo@...	0921456...	Carlos L...	Gloria L...
2021-14...	Steven F...	BS Infor...	3-A	Male	2002-02...	San Dio...	steven.fl...	0918234...	Luis Flor...	Marissa ...
2022-10...	Brian Cr...	BS Infor...	2-B	Male	2003-08...	Jaro, Bol...	b.cruz@...	0918234...	Oscar C...	Liza Cruz
2022-10...	Francis	BS Infor...	3-C	Male	2002-11...	San Raf...	francis.t...	0919567...	Ramon	Gina Tan
2022-11...	Mark Fu...	BS Infor...	3-B	Male	2002-12...	Dingle, B...	mark.fue...	0919555...	Raul Fue...	Gloria F...

Save

Undo

Update

Delete

Logout

2. Manage Courses

The Admin can:

- Fill Course Info – Input course-related data.
- Save Course – Store new course information.
- Drop Course – Remove a course from a student's list.
- Delete Course – Remove a course from the system.
- Load Course – Retrieve and display course data for editing or viewing.
- Log-out – Exit the system.

COMPUTER DEPARTMENT STUDENT MANAGEMENT SYSTEMS

Student Course **Grades**

Student's ID:

Academic Year:

Course:

Year and Section:

Semester:

Course 1: 3 UNITS

Course 2: 3 UNITS

Course 3: 3 UNITS

Course 4: 3 UNITS

Course 5: 3 UNITS

Search Record:

Student ID	Student Na...	Academic ...	Semester	Course 1	Course 2	Course 3	Course 4	Course 5
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3. Manage Grades

The Admin can:

- Fill Student Info – Access or input student data relevant to grade inputting.
- Load Courses – Access course data.
- Input Grades – Enter student grades for enrolled courses.
- Calculate GWA – Compute the General Weighted Average (GWA) for a student.
- Save Grades – Save the entered and calculated grades.
- Fill Search Info – Access or input student data relevant to searching.
- Update Grades – Modify existing grade entries.
- Search Record – Look up a student's academic record.
- Print RF (Report Form) – Generate a printable version of a student's academic record.
- Log-out – Exit the system.

COMPUTER DEPARTMENT STUDENT MANAGEMENT SYSTEMS

Student Course **Grades**

Student's ID:

Academic Year:

Semester:

Course 1: 3 UNITS

Course 2: 3 UNITS

Course 3: 3 UNITS

Course 4: 3 UNITS

Course 5: 3 UNITS

Search Record:

Student ID	Student Na...	Academic ...	Semester	Course 1	Course 2	Course 3	Course 4	Course 5
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ERD:

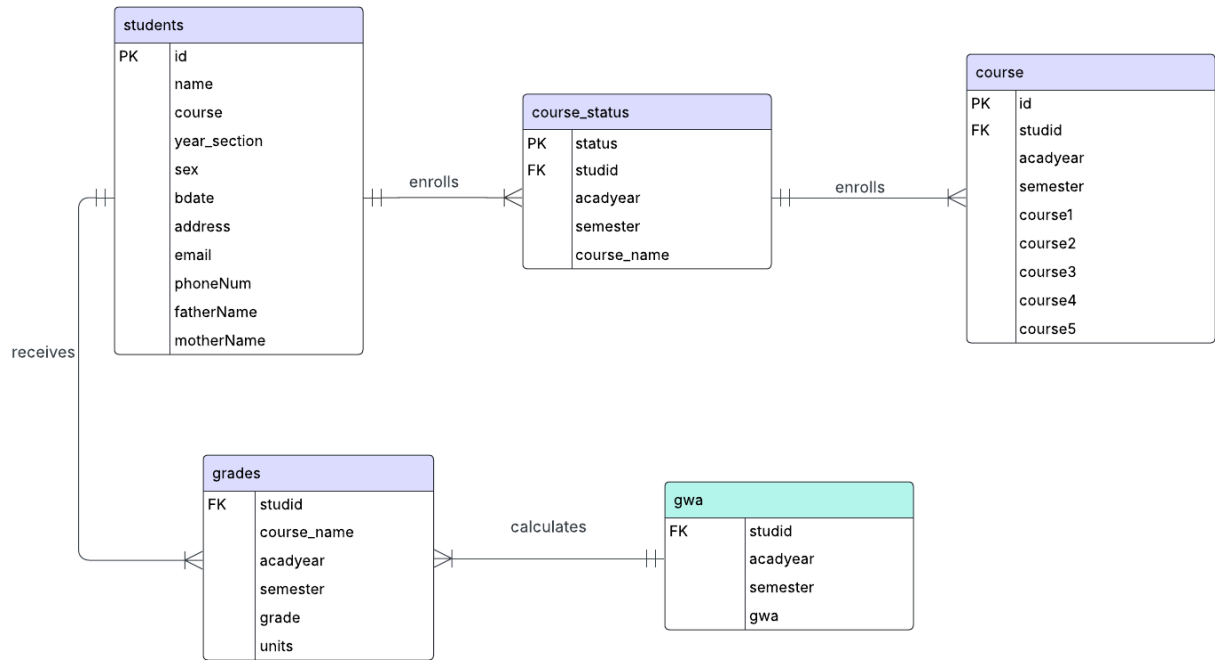


Figure 1. ERD

Use Case Diagram:

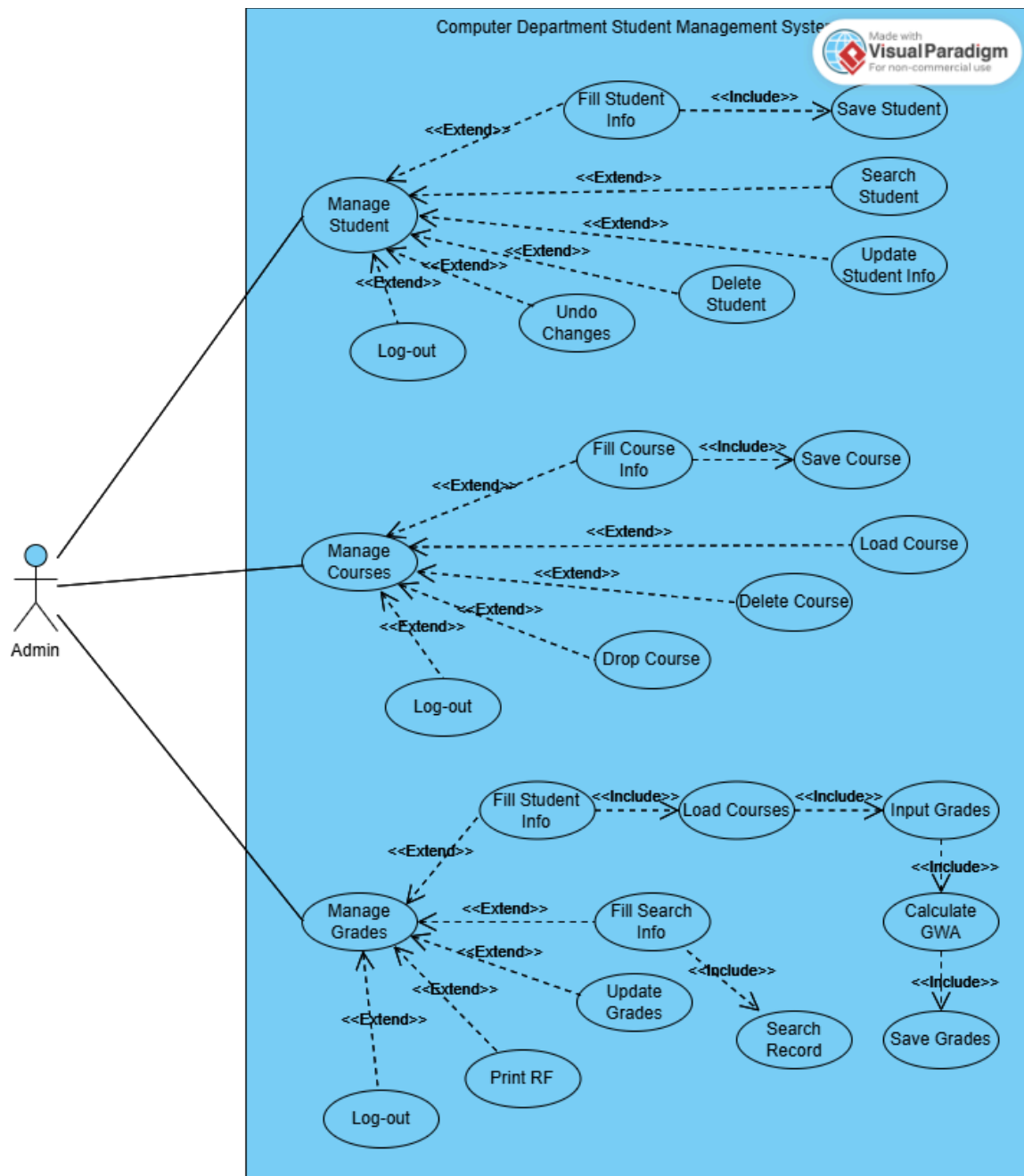


Figure 2. Use Case Diagram of Computer Department Student Management System

Multiple Client Session Validation

COMPUTER DEPARTMENT STUDENT MANAGEMENT SYSTEMS

StudentCourseGrades

Student's ID

Student's Name

Course

Year & Section

Sex

Male

Date of Birth

Address

Email

Phone Number

Father's Name

Mother's Name

Search Student

Andrew Lopez

Search

Refresh

ID	Name	Course	Year & S...	Sex	Date of Bi...	Address	Email	Phone N...	Father's ...	Mother's ...
2021-102...	Andrew ...	BS Infor...	4-A	Female	2001-12-...	Pavia, Il...	ifitzgeral...	0920752...	James Ri...	Angela F...

Save

Undo

Update

Delete

Logout

COMPUTER DEPARTMENT STUDENT MANAGEMENT SYSTEMS

StudentCourseGrades

Student's ID

Academic Year

Course

Year and Section

Semester

1st Semester

Course 1

3 UNITS

Course 2

3 UNITS

Course 3

3 UNITS

Course 4

3 UNITS

Course 5

3 UNITS

Search Record

Juliana Hurgo

Search

Refresh

Student ID	Student Na...	Academic ...	Semester	Course 1	Course 2	Course 3	Course 4	Course 5
2022-0143...	Juliana Hu...	2024-2025	1st Seme...	Design an...	Web Deve...	CS Electiv...	Professio...	Life and ...

Save

Drop

Delete

Logout

COMPUTER DEPARTMENT STUDENT MANAGEMENT SYSTEMS

StudentCourseGrades

Student's ID2022-0143-A

Academic Year2024-2025

Semester2nd Semester

Load Courses

Course 1Artificial Intelligence1.0

Course 2CS Elective 21.0

Course 3Technopreneurship1.0

Course 4Internship Preparation1.0

Course 5Readings in Philippine History1.0

Calculate GWA

GWA:1.00

Student ID2022-0143-A

Student NameJulliana Hurgo

Academic Year2024-2025

Semester2nd Semester

Search

GWA:1.00

Course	Grade	Units
Artificial Intelligence	1.0	3
CS Elective 2	1.0	3
Internship Preparation	1.0	3
Readings in Philippine History	1.0	3
Technopreneurship	1.0	3

SaveUpdatePrint RFLogout

Server is listening on port 12345...

Client connected.

Received: SEARCH:Andrew Lopez

Processing search for: Andrew Lopez

Client connected.

Received: COURSESEARCH:Julliana Hurgo

Processing course search for: Julliana Hurgo

Client connected.

Received: GRADESEARCH:2022-0143-A

Processing grade search for student ID: 2022-0143-A

Client Disconnected.

BUILD SUCCESSFUL (total time: 39 seconds)

```

public class Server {
    public static void main(String[] args) {
        try (ServerSocket serverSocket = new ServerSocket(port: 12345)) {
            System.out.println("Server is listening on port 12345...");

            while (true) {
                Socket socket = serverSocket.accept();
                System.out.println("Client connected.");

                ClientHandler clientHandler = new ClientHandler(socket);
                Thread clientThread = new Thread(task: clientHandler);
                clientThread.start();
            }

        } catch (IOException e) {
            e.printStackTrace();
        }
    }
}

```

```

public class Client {
    private Socket socket;
    private BufferedReader reader;
    private PrintWriter writer;

    public Client(String serverAddress, int port) {
        try {
            socket = new Socket(host: serverAddress, port);
            reader = new BufferedReader(new InputStreamReader(in: socket.getInputStream()));
            writer = new PrintWriter(out: socket.getOutputStream(), autoFlush: true);
        } catch (IOException e) {
            e.printStackTrace();
        }
    }

    public void sendCommand(String command) {
        writer.println(" " + command);
    }

    public String readResponse() throws IOException {
        return reader.readLine();
    }

    public void close() {
        try {
            reader.close();
            writer.close();
            socket.close();
        } catch (IOException e) {
            e.printStackTrace();
        }
    }
}

```

Files Link:

https://drive.google.com/drive/folders/1zBFliPhqKaWQ3VFdPQ5brQdNTBthmEBX?usp=drive_link

Proponents:

Julliana Antonette D. Hurgo

Mary Angel B. Palmares