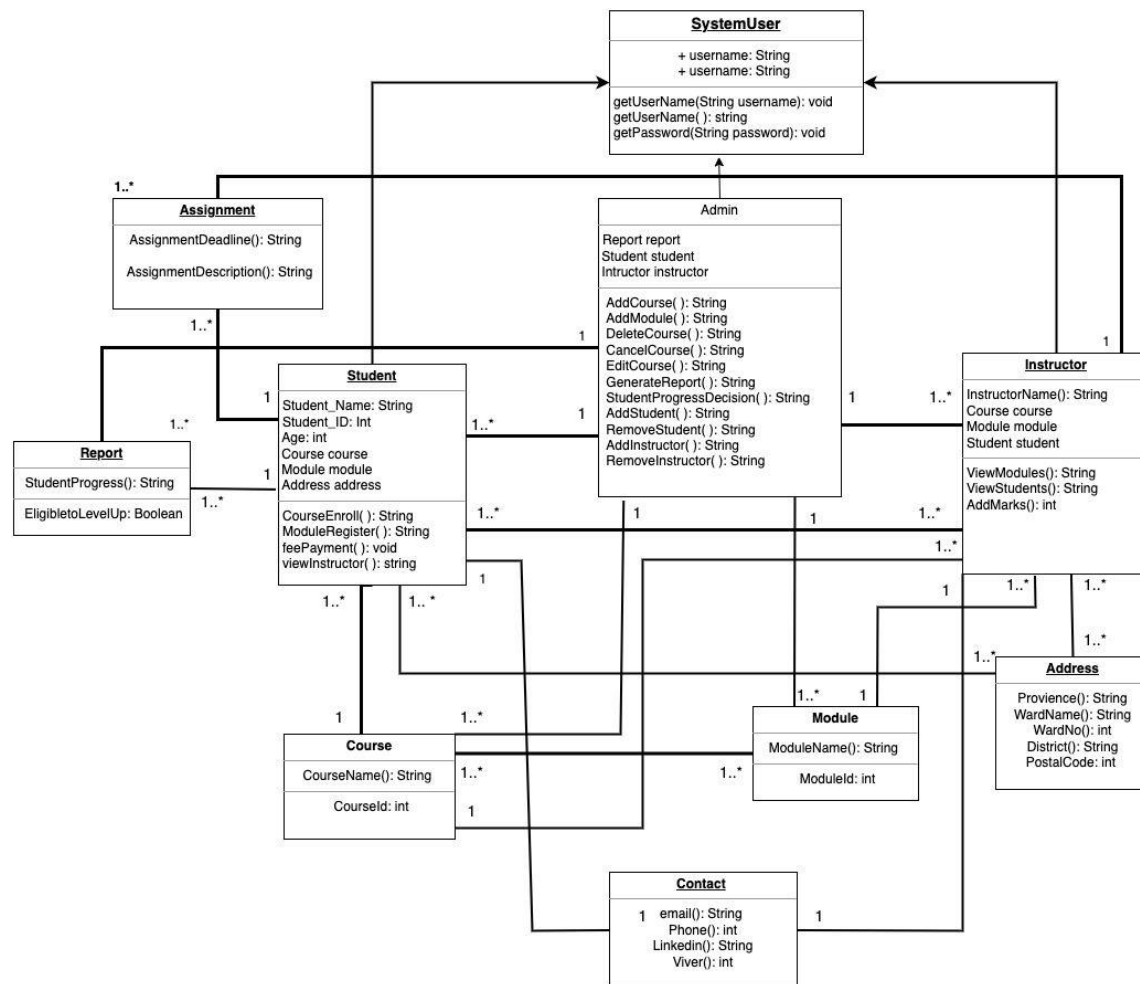


# Course Management System



The diagram is a class diagram in the Unified Modeling Language (UML), and it shows the relationships between different classes in a system, including their attributes, methods, and associations. Here's what I have made from the diagram:

Classes:

**System User:** This class represents a user of the system. It has attributes like username and password.

**Admin:** This class represents an administrator of the system. It has methods like Add Course, AddModule, and GenerateReport.

**Report:** This class represents a report that can be generated by the system. It has attributes like student progress and course enrollment.

**Student:** This class represents a student who uses the system. It has attributes like name, ID, age, and address.

**Instructor:** This class represents an instructor who teaches courses in the system. It has attributes like name and contact information.

**Course:** This class represents a course that students can enroll in. It has attributes like a name and ID.

**Module:** This class represents a module within a course. It has attributes like a name and ID.

**Address:** This class represents the address of a student or instructor. It has attributes like province, district, and postal code.

#### Attributes:

Each class has attributes, which are essentially its properties. For example, the Student class has attributes like name, ID, age, and address.

#### Methods:

Classes also have methods, which are actions they can perform. For example, the Admin class has methods like AddCourse, AddModule, and GenerateReport.

#### Associations:

The lines between the classes represent associations. These show how the classes are related to each other. For example, the association between the Student and Course classes indicates that a student can enroll in a course.

A Student can enroll in one or more Courses.

A Course can have one or more Modules.

A Module belongs to one Course.

An Instructor can teach one or more Courses.

A Course can be taught by one or more Instructors.

A Student has one Address.

An Instructor has one Address.

**Screenshot of databases:**

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: coursemanagementsystem Tables activity admin assigned\_modules courses enrollments instructors modules results students Views Stored Procedures Functions Administration Schemas Information No object selected

1 • SELECT \* FROM coursemanagementsystem.courses;

Result Grid

course_id	course_name
1	BSc. Computer Science
2	BSc. Information Technology
3	BSc. Computer Engineering

courses 1 x

Output

SQLAdditions: Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: coursemanagementsystem Tables activity admin assigned\_modules courses enrollments instructors modules results students Views Stored Procedures Functions Administration Schemas Information No object selected

1 • SELECT \* FROM coursemanagementsystem.instructors;

Result Grid

instructor_id	instructor_name	instructor_email	instructor_password	instructor_phone
1	Subash Bista	subash@gmail.com	subash@123	1234567890
2	Aahina Thapaliya	aahina@gmail.com	aahina@123	1234567890
3	Sajag Silwal	sajag@gmail.com	sajag@123	123456789

instructors 1 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
9	16:23:20	SELECT * FROM coursemanagementsystem.students LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
10	16:28:03	SELECT * FROM coursemanagementsystem.results LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
11	16:32:21	SELECT * FROM coursemanagementsystem.admin LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
12	16:33:08	SELECT * FROM coursemanagementsystem.students LIMIT 0, 1000	5 row(s) returned	0.016 sec / 0.000 sec
13	16:33:37	SELECT * FROM coursemanagementsystem.instructors LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
14	16:33:44	SELECT * FROM coursemanagementsystem.instructors LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

SQLAdditions: Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: coursemanagementsystem Tables activity admin assigned\_modules courses enrollments instructors modules results students Views Stored Procedures Functions Administration Schemas Information No object selected

1 • SELECT \* FROM coursemanagementsystem.assigned\_modules;

Result Grid

instructor_id	module_id
1	1
2	1
1	2
2	2
1	3
2	3
1	4

ned\_modules 1 x

Output

SQLAdditions: Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: students results admin students instructors instructors courses assigned\_modules modules x

1 • SELECT \* FROM coursemanagementsystem.modules;

Result Grid

module_id	module_name	module_type	course_id
8	Database Management Systems	core	2
9	Computer Networks	optional	2
10	Operating Systems	optional	2
11	Programming Fundamentals	core	3
12	Data Structures	core	3
13	Database Management Systems	core	3
14	Computer Networks	optional	3
15	Operating Systems	optional	3

modules 1 x

SQLAdditions: Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: students instructors instructors courses assigned\_modules modules results-Table results results x

1 • SELECT \* FROM coursemanagementsystem.results;

Result Grid

student_id	module_id	marks
1	1	80
1	2	80
1	3	80
1	4	80
1	5	80

results 1 x

SQLAdditions: Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: courses enrollments instructors instructors modules results students results admin students x

1 • SELECT \* FROM coursemanagementsystem.students;

Result Grid

student_id	student_name	course_id	student_email	student_password	student_phone	level
1	Sumit Shah	1	sumit1@gmail.com	sumit@123	9818257300	1
2	Santosh Shah	2	santosh@gmail.com	santosh@123	9861446442	2
3	Rajni Shah	1	Rajni@gmail.com	rajni@123	123456789	3
4	Juli Shah	2	juli@gmail.com	juli@123	123456789	4
5	Satruhan Sharma	2	satruhan@gmail.com	satruhan@123	1213456789	5

students 1 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
7	16:23:16	SELECT * FROM coursemanagementsystem.modules LIMIT 0, 1000	15 row(s) returned	0.000 sec / 0.000 sec
8	16:23:18	SELECT * FROM coursemanagementsystem.results LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
9	16:23:20	SELECT * FROM coursemanagementsystem.students LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
10	16:28:03	SELECT * FROM coursemanagementsystem.results LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
11	16:32:21	SELECT * FROM coursemanagementsystem.admin LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
12	16:33:08	SELECT * FROM coursemanagementsystem.students LIMIT 0, 1000	5 row(s) returned	0.016 sec / 0.000 sec

Object Info Session

SQLAdditions: Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.