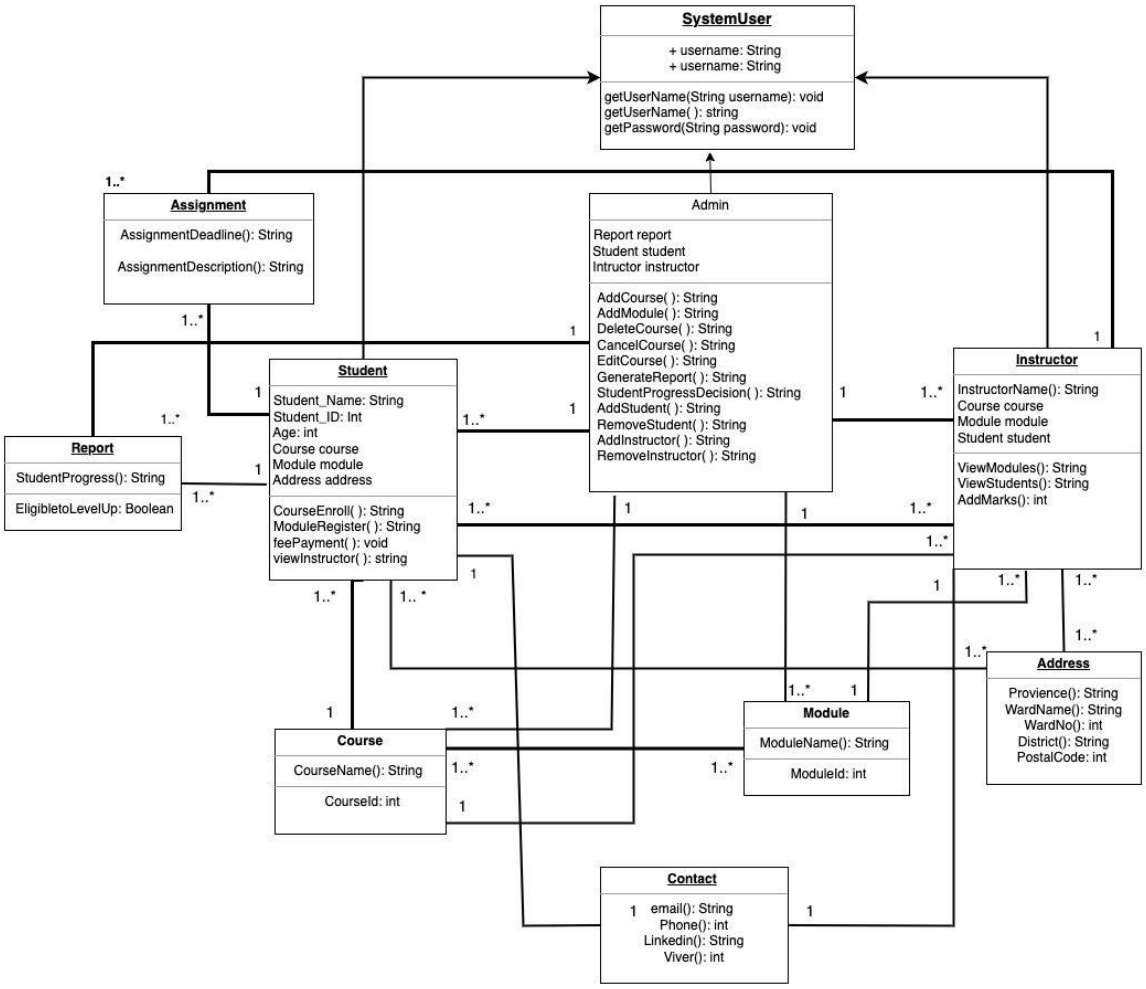
Course Management System



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.

Here are some additional details about the relationships between the classes:

A Student can enroll in one or more Courses.

A Course can have one or more Modules.

A Module belongs to one Course.

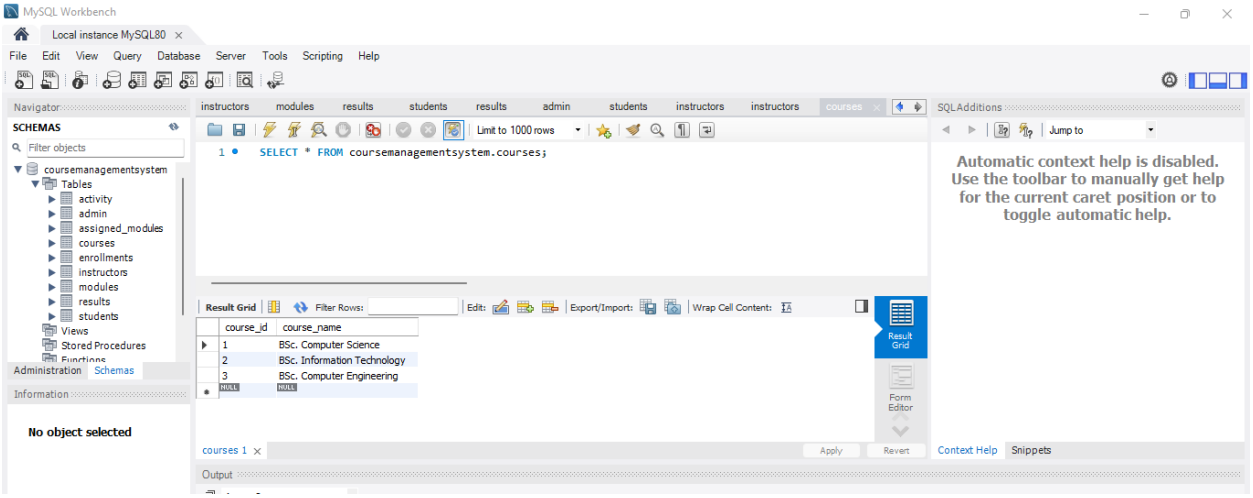
An Instructor can teach one or more Courses.

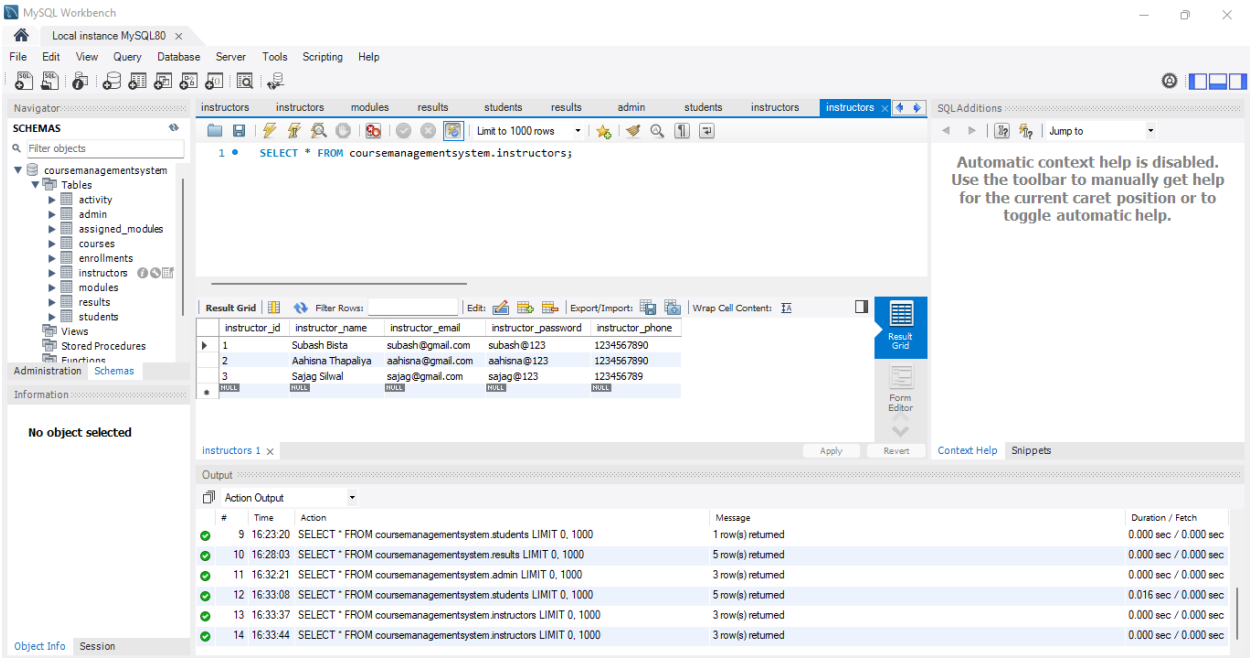
A Course can be taught by one or more Instructors.

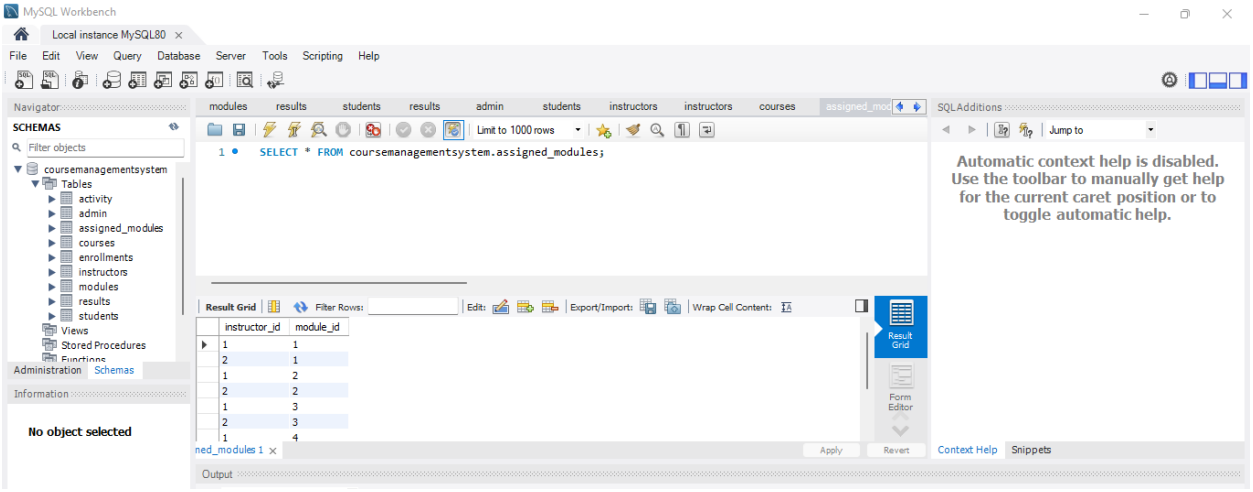
A Student has one Address.

An Instructor has one Address.

Screenshot of databases:






MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
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courses
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modules
results
students
Views
Stored Procedures
Administration Schemas
Information
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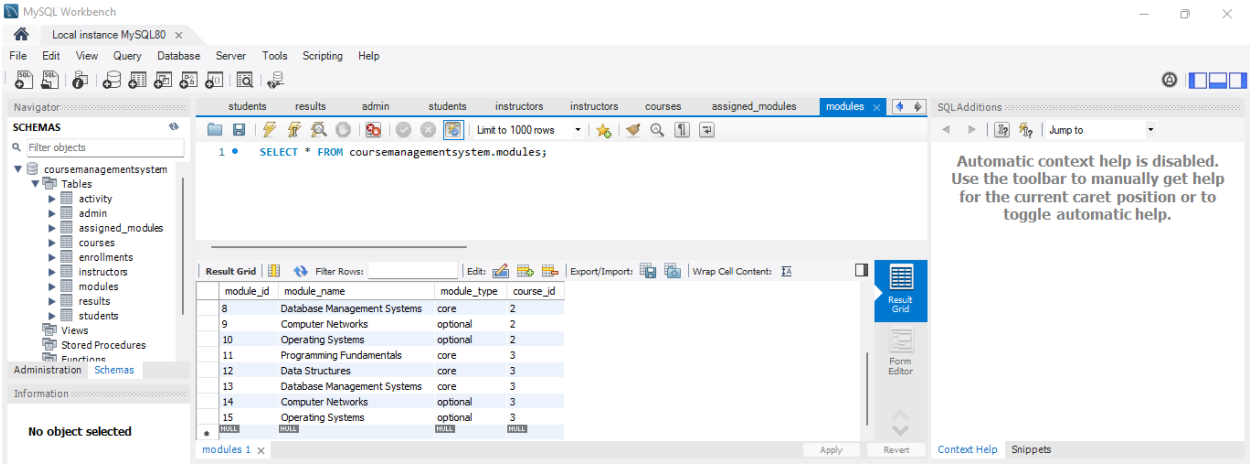
modules results students results admin students instructors instructors courses
Limit to 1000 rows
1 SELECT * FROM coursemanagementsystem.assigned_modules;
SQLAdditions
Jump to
Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.
Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:
instructor_id module_id
1 1
2 1
1 2
2 2
1 3
2 3
1 4
Result Grid
Form Editor
ned_modules 1
Apply Revert
Context Help Snippets
Output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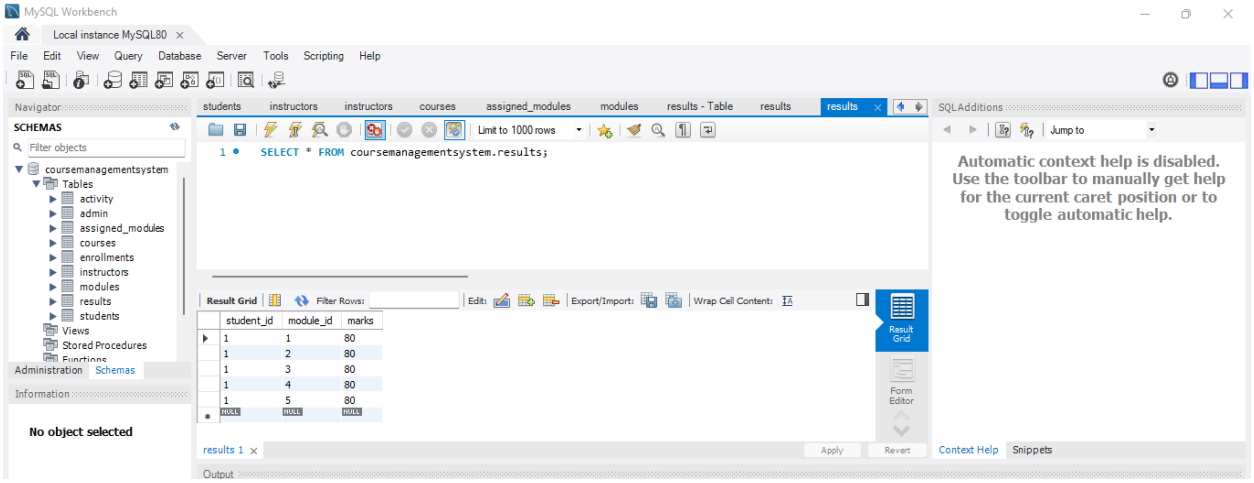
Limit to 1000 rows
1 SELECT * FROM coursemanagementsystem.modules;
SQLAdditions
Jump to
Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.
Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:
module_id module_name 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
Result Grid
Form Editor
modules 1
Apply Revert
Context Help Snippets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Views
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Administration Schemas
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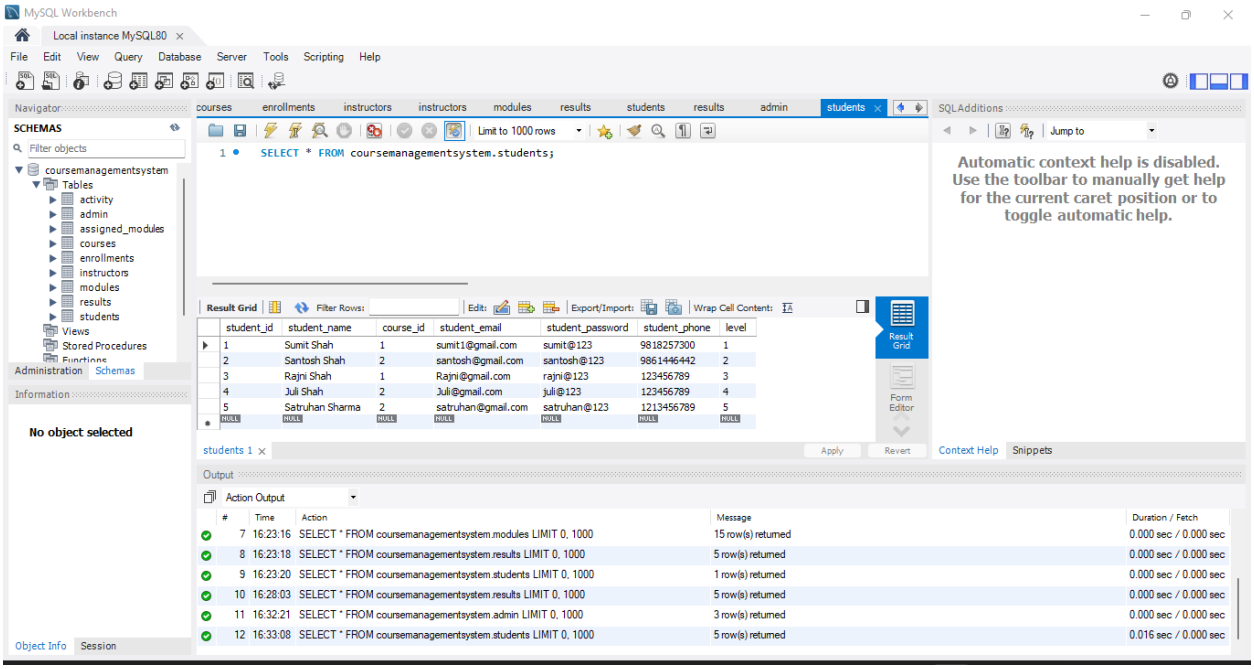
students instructors instructors courses assigned_modules modules results - Table results results
Limit to 1000 rows
1 SELECT * FROM coursemanagementsystem.results;
SQLAdditions
Jump to
Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.
Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:
student_id module_id marks
1 1 80
1 2 80
1 3 80
1 4 80
1 5 80
Result Grid
Form Editor
results 1
Apply Revert
Context Help Snippets
Output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instructors
modules
results
students
Views
Stored Procedures
Administration Schemas
Information
No object selected
courses enrollments instructors instructors modules results students results admin students
Limit to 1000 rows
1 SELECT * FROM coursemanagementsystem.students;
SQLAdditions
Jump to
Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.
Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:
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
Result Grid
Form Editor
students 1
Apply Revert
Context Help Snippets
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