# SQL Lab Exercise: Multiple Tables and Queries

## Step 1: Create Database

CREATE DATABASE college\_db;  
USE college\_db;

## Step 2: Create Tables

-- Departments table  
CREATE TABLE departments (  
 department\_id INT PRIMARY KEY,  
 department\_name VARCHAR(50)  
);

| **[department\_id](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&sql_query=SELECT+*+FROM+`departments`++%0AORDER+BY+`departments`.`department_id`+ASC&sql_signature=60cc2cd51051f53081caa8cf8e532bcac54ae282b464525090f1e02397cd72d7&session_max_rows=25&is_browse_distinct=0)** | **[department\_name](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&sql_query=SELECT+*+FROM+`departments`++%0AORDER+BY+`departments`.`department_name`+ASC&sql_signature=a4b81d01adc7f80ec40a831c359181a0cc34bbe7d9ad892cb018d73ed44641f9&session_max_rows=25&is_browse_distinct=0)** |  | | | |
| --- | --- | --- | --- | --- | --- |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 1 | Computer Science |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 2 | Mathematics |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 3 | Physics |

-- Students table  
CREATE TABLE students (  
 student\_id INT PRIMARY KEY,  
 name VARCHAR(50),  
 age INT,  
 department\_id INT,  
 FOREIGN KEY (department\_id) REFERENCES departments(department\_id)  
);

| **[student\_id](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+`students`++%0AORDER+BY+`students`.`student_id`+ASC&sql_signature=5f7927b47947a0d878f5b7107d77516eac5daad5d75f74ac9ea851245334ae68&session_max_rows=25&is_browse_distinct=0)** | **[name](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+`students`++%0AORDER+BY+`students`.`name`+ASC&sql_signature=948621a279f6657ceefdf6211813e7f997daa7e73c0f6aa1be7052d3fc1d7183&session_max_rows=25&is_browse_distinct=0)** | **[age](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+`students`++%0AORDER+BY+`students`.`age`+ASC&sql_signature=3a6be9b52deb68cb054f0ff194aa67d5363fcb7060bcb7eb56ceac1053a808ca&session_max_rows=25&is_browse_distinct=0)** | **[department\_id](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+`students`++%0AORDER+BY+`students`.`department_id`+ASC&sql_signature=d3f2af11a41f32a07721cc45e03748aedf9057efe932a1fc894f33460504bfd1&session_max_rows=25&is_browse_distinct=0)** |  | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 101 | Shruti | 20 | [1](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=81450ae0c5478cd135341f5ed022d4946035322a6081d9d4971514aa5b6eb8c4&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+1" \o "Computer Science) |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 102 | Rahul | 21 | [2](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=df8d54b84b83eab739805d5d9a392a47ebb85777c983aaa958dcff1fcacac6d5&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+2" \o "Mathematics) |
| **-** | Edit | coby | Delete | 103 | Aman | 22 | 1 |
| \_ | Edit | copy | Delete | 104 | sheha | 20 | 3 |

-- Courses table  
CREATE TABLE courses (  
 course\_id INT PRIMARY KEY,  
 course\_name VARCHAR(50),  
 department\_id INT,  
 FOREIGN KEY (department\_id) REFERENCES departments(department\_id)  
);

|  | | | | **[course\_id](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=courses&sql_query=SELECT+*+FROM+`courses`++%0AORDER+BY+`courses`.`course_id`+ASC&sql_signature=2450cc281f7b4d295f9acb90691057352365c616088dc391a13ad9f19c29f7ac&session_max_rows=25&is_browse_distinct=0)** | **[course\_name](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=courses&sql_query=SELECT+*+FROM+`courses`++%0AORDER+BY+`courses`.`course_name`+ASC&sql_signature=dbbeaf4d2d63e9c0eb54e3ec8723633a0eb272e74a5d9975e7fa569e974deecf&session_max_rows=25&is_browse_distinct=0)** | **[department\_id](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=courses&sql_query=SELECT+*+FROM+`courses`++%0AORDER+BY+`courses`.`department_id`+ASC&sql_signature=4d619185d32e302dc6a2ad1831ef07c775e97bc32b0dd8a76f7900fb1fa4874e&session_max_rows=25&is_browse_distinct=0)** |  | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 1 | DBMS | [1](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=81450ae0c5478cd135341f5ed022d4946035322a6081d9d4971514aa5b6eb8c4&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+1" \o "Computer Science) |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 2 | java | [2](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=df8d54b84b83eab739805d5d9a392a47ebb85777c983aaa958dcff1fcacac6d5&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+2" \o "Mathematics) |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 3 | php | [3](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=5e8cf37b5dee691a4c56c2087858579fd027fdd849715ed5bb72cba944c2e7d1&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+3" \o "Physics) |  |  |  |  |

-- Enrollments table  
CREATE TABLE enrollments (  
 enrollment\_id INT PRIMARY KEY,  
 student\_id INT,  
 course\_id INT,  
 grade VARCHAR(2),  
 FOREIGN KEY (student\_id) REFERENCES students(student\_id),  
 FOREIGN KEY (course\_id) REFERENCES courses(course\_id)

);

| **[Full texts](http://localhost/phpmyadmin/index.php)** | | | | **[student\_id](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=enrollments&sql_query=SELECT+*+FROM+enrollments++%0AORDER+BY+`enrollments`.`student_id`+ASC&sql_signature=cfe93b16532e8dea5d56b826057ac520e4e79f49acbeeb06507f2504141fe5e6&session_max_rows=25&is_browse_distinct=0)** | **[course\_id](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=enrollments&sql_query=SELECT+*+FROM+enrollments++%0AORDER+BY+`enrollments`.`course_id`+ASC&sql_signature=2cea10979942f1087609c656c73b6b0ace249ca921997880b0a758107b9e5a35&session_max_rows=25&is_browse_distinct=0)** | **[grade](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=enrollments&sql_query=SELECT+*+FROM+enrollments++%0AORDER+BY+`enrollments`.`grade`+ASC&sql_signature=43e6bd29a859091f69dea8ed7ba51a12502aa7c04fd99b92af6d71b900874774&session_max_rows=25&is_browse_distinct=0)** | **[enrollment\_id IMG_257 1](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=enrollments&sql_query=SELECT+*+FROM+enrollments++%0AORDER+BY+`enrollments`.`enrollment_id`+DESC&sql_signature=ed7691dfb6f3cca5534268bec70027b08ef73c8a66de7713280cec5b07a6ca9c&session_max_rows=25&is_browse_distinct=0)** |  | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | [101](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&pos=0&sql_signature=e4f6ed970296bb19ec3aeac125a45dbbe140d2b8f093bbcb05c92656115819e6&sql_query=SELECT+*+FROM+`college_db`.`students`+WHERE+`student_id`+=+101" \o "Shruti) | [1](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=courses&pos=0&sql_signature=3e08a38107152ab13801c4963e054fd880b888d4472269f30e2dcf8c15f91d9f&sql_query=SELECT+*+FROM+`college_db`.`courses`+WHERE+`course_id`+=+1" \o "DBMS) | A | 1 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | [102](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&pos=0&sql_signature=41c7269b217d4c94a1f3df6b1718e6df173179885f193df5d5328e2320509362&sql_query=SELECT+*+FROM+`college_db`.`students`+WHERE+`student_id`+=+102" \o "Rahul) | [2](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=courses&pos=0&sql_signature=dd638f924f6e123d4a49815f4e8c9da2f249ea7b186233155fdc052e3b9bdb84&sql_query=SELECT+*+FROM+`college_db`.`courses`+WHERE+`course_id`+=+2" \o "java) | B | 2 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | [103](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&pos=0&sql_signature=894180cb64f4b82d80a798f8184d37bf1820009c13e1ebd84b46da6162c42d0d&sql_query=SELECT+*+FROM+`college_db`.`students`+WHERE+`student_id`+=+103" \o "Aman) | [3](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=courses&pos=0&sql_signature=3786d8159a6471690681a965848655c777b0e56503e0fee9179fbff7823eff0a&sql_query=SELECT+*+FROM+`college_db`.`courses`+WHERE+`course_id`+=+3" \o "php) | C | 3 |  |  |  |  |

## Step 3: Insert Data

-- Insert into departments  
INSERT INTO departments VALUES   
(1, 'Computer Science'),  
(2, 'Mathematics'),  
(3, 'Physics');

| **[department\_id](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&sql_query=SELECT+*+FROM+`departments`++%0AORDER+BY+`departments`.`department_id`+ASC&sql_signature=0252036962491f45d46ddf487a6a6e737143301b64188f86e39f5d3936468133&session_max_rows=25&is_browse_distinct=0)** | **[department\_name](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&sql_query=SELECT+*+FROM+`departments`++%0AORDER+BY+`departments`.`department_name`+ASC&sql_signature=6244e39277724271f040a9e1ce76eba0d2cef16d765943da93b37f5296f7faeb&session_max_rows=25&is_browse_distinct=0)** |  | | | |
| --- | --- | --- | --- | --- | --- |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 1 | Computer Science |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 2 | Mathematics |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 3 | Physics |

-- Insert into students  
INSERT INTO students VALUES   
(101, 'Shruti', 20, 1),  
(102, 'Rahul', 21, 2),  
(103, 'Aman', 22, 1),  
(104, 'Sneha', 20, 3);

| **[Full texts](http://localhost/phpmyadmin/index.php)** | | | | **[student\_id IMG_257 1](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+`students`++%0AORDER+BY+`students`.`student_id`+DESC&sql_signature=225a3cffdc5e0cfe95120e811f69ddc47317d06fe1a394d65a2d70afd652f04f&session_max_rows=25&is_browse_distinct=0)** | **[name](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+`students`++%0AORDER+BY+`students`.`name`+ASC&sql_signature=f9f4cca4feec27664984195237fe9a03f0a2f9f7c79d20bf7381bdf5070407c2&session_max_rows=25&is_browse_distinct=0)** | **[age](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+`students`++%0AORDER+BY+`students`.`age`+ASC&sql_signature=3270359f1313f4f30f0bbf3cc9fe4bb22fc75b16fd1c174400e2d2cf2af90297&session_max_rows=25&is_browse_distinct=0)** | **[department\_id](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+`students`++%0AORDER+BY+`students`.`department_id`+ASC&sql_signature=0e7492640cf3ac3881733188c77c0832ce2bb01957717b79306d59fc1ec25d2c&session_max_rows=25&is_browse_distinct=0)** |  | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 101 | Shruti | 20 | [1](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=0fb0bcee50f380f5619434b7cae958be3d6c1eda94e102e0779a1d4760b26216&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+1" \o "Computer Science) |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 102 | Rahul | 21 | [2](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=52cc3a12a53e6424146e396ee3cde77341f3881ca880794f68c62e737785b6e1&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+2" \o "Mathematics) |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 103 | Aman | 22 | [1](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=0fb0bcee50f380f5619434b7cae958be3d6c1eda94e102e0779a1d4760b26216&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+1" \o "Computer Science) |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 104 | Sneha | 20 | [3](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=eb1f8c13d4ed528cf1dd6d49d741e6f636e9c4e0580d3cfb996cd400bc686239&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+3" \o "Physics) |  |  |  |  |

-- Insert into courses  
INSERT INTO courses VALUES   
(1, 'DBMS', 1),  
(2, 'java', 2),  
(3, 'php', 3);

| **[Full texts](http://localhost/phpmyadmin/index.php)** | | | | **[course\_id](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=courses&sql_query=SELECT+*+FROM+`courses`++%0AORDER+BY+`courses`.`course_id`+ASC&sql_signature=6b200bf0686a0d44eb2f522a6d44242d27d9f598d92271a2d2064f5ee16ea169&session_max_rows=25&is_browse_distinct=0)** | **[course\_name](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=courses&sql_query=SELECT+*+FROM+`courses`++%0AORDER+BY+`courses`.`course_name`+ASC&sql_signature=f65a49ed8b30797ba525c91006c27681a6d60076f9056b4f589502eff437331f&session_max_rows=25&is_browse_distinct=0)** | **[department\_id](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=courses&sql_query=SELECT+*+FROM+`courses`++%0AORDER+BY+`courses`.`department_id`+ASC&sql_signature=1b035cc73436fd437386cb630afcdef25884130a782b128eeee6fa4632567432&session_max_rows=25&is_browse_distinct=0)** |  | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 1 | DBMS | [1](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=0fb0bcee50f380f5619434b7cae958be3d6c1eda94e102e0779a1d4760b26216&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+1" \o "Computer Science) |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 2 | java | [2](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=52cc3a12a53e6424146e396ee3cde77341f3881ca880794f68c62e737785b6e1&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+2" \o "Mathematics) |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 3 | php | [3](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=eb1f8c13d4ed528cf1dd6d49d741e6f636e9c4e0580d3cfb996cd400bc686239&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+3" \o "Physics) |  |  |  |  |

-- Insert into enrollments  
INSERT INTO enrollments VALUES   
(1, 101, 1, 'A'),  
(2, 102, 2, 'B'),  
(3, 103, 1, 'C'),  
(4, 104, 3, 'A');

| **[Full texts](http://localhost/phpmyadmin/index.php)** | | | | **[student\_id](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=enrollments&sql_query=SELECT+*+FROM+`enrollments`++%0AORDER+BY+`enrollments`.`student_id`+ASC&sql_signature=6faf93822b0f936a3fb2401f6be2bec82234c7ddbe398069c42c5d485dc10413&session_max_rows=25&is_browse_distinct=0)** | **[course\_id](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=enrollments&sql_query=SELECT+*+FROM+`enrollments`++%0AORDER+BY+`enrollments`.`course_id`+ASC&sql_signature=42baf993f7b3fae46417961124002ff28a49458f19cb8f930b88044ff98da346&session_max_rows=25&is_browse_distinct=0)** | **[grade](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=enrollments&sql_query=SELECT+*+FROM+`enrollments`++%0AORDER+BY+`enrollments`.`grade`+ASC&sql_signature=eb44ef512bb8a278aa5d2fbd80c6569c74e0e000468935353ff97848c250f636&session_max_rows=25&is_browse_distinct=0)** | **[enrollment\_id IMG_257 1](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=enrollments&sql_query=SELECT+*+FROM+`enrollments`++%0AORDER+BY+`enrollments`.`enrollment_id`+DESC&sql_signature=be425bdcbffc086e14ec7c9d94bf1e282aa9c70e7dd91c61f2067fce09750ef4&session_max_rows=25&is_browse_distinct=0)** |  | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | [101](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&pos=0&sql_signature=75cb168ef8e361dcd22e34f7bccc63664aed6fac246a46243d2f213bc1460c04&sql_query=SELECT+*+FROM+`college_db`.`students`+WHERE+`student_id`+=+101" \o "Shruti) | [1](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=courses&pos=0&sql_signature=bcb42f90894898b043152524f8f0a7451fad227ad341bc139fb9e95d2c6374c5&sql_query=SELECT+*+FROM+`college_db`.`courses`+WHERE+`course_id`+=+1" \o "DBMS) | A | 1 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | [102](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&pos=0&sql_signature=0a7f93266c6b10c82d8dd234da88baae113b70a83aa786ac86d93adab00a8d1c&sql_query=SELECT+*+FROM+`college_db`.`students`+WHERE+`student_id`+=+102" \o "Rahul) | [2](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=courses&pos=0&sql_signature=abfa0f9f2d0e6bafb7504ad767764d08a37f59f7190ce8ad71f416ebb70bb720&sql_query=SELECT+*+FROM+`college_db`.`courses`+WHERE+`course_id`+=+2" \o "java) | B | 2 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | [103](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&pos=0&sql_signature=5d0c270d90d80cbf15ca5062b13df88c5ad0a7bd0e22770f8e28d8af08d5db7f&sql_query=SELECT+*+FROM+`college_db`.`students`+WHERE+`student_id`+=+103" \o "Aman) | [3](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=courses&pos=0&sql_signature=7460aa1c284d0de38c53de95f87f00aa015c9ef9207ea2ea376331a0b115e9e4&sql_query=SELECT+*+FROM+`college_db`.`courses`+WHERE+`course_id`+=+3" \o "php) | C | 3 |  |  |  |  |

## Step 4: SQL Query

### 1. Show all students

SELECT \* FROM students;

| **[student\_id IMG_256 1](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+students++%0AORDER+BY+`students`.`student_id`+DESC&sql_signature=a0e5e4a90fe975144e5e9cc2cf70921c962eb48b2af6df80a053bed654ac444d&session_max_rows=25&is_browse_distinct=0)** | **[name](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+students++%0AORDER+BY+`students`.`name`+ASC&sql_signature=725b4657109eb35bd3334c4fa8f4b29c241573bce8c8cb588a68200ac2ae725f&session_max_rows=25&is_browse_distinct=0)** | **[age](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+students++%0AORDER+BY+`students`.`age`+ASC&sql_signature=33c5781acaeb9b52c9cf6fbcb479502e7584505cc74091a9b4185d42807e4a9b&session_max_rows=25&is_browse_distinct=0)** | **[department\_id](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+students++%0AORDER+BY+`students`.`department_id`+ASC&sql_signature=a0b7ed6ab3eeabd88f364e816ccd352a641a4c7c54733297d134884789564135&session_max_rows=25&is_browse_distinct=0)** |  | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 101 | Shruti | 20 | [1](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=0fb0bcee50f380f5619434b7cae958be3d6c1eda94e102e0779a1d4760b26216&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+1" \o "Computer Science) |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 102 | Rahul | 21 | [2](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=52cc3a12a53e6424146e396ee3cde77341f3881ca880794f68c62e737785b6e1&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+2" \o "Mathematics) |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 103 | Aman | 22 | [1](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=0fb0bcee50f380f5619434b7cae958be3d6c1eda94e102e0779a1d4760b26216&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+1" \o "Computer Science) |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 104 | Sneha | 20 | [3](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=eb1f8c13d4ed528cf1dd6d49d741e6f636e9c4e0580d3cfb996cd400bc686239&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+3" \o "Physics) |

### 2. Students in 'Computer Science'

SELECT name FROM students WHERE department\_id = 1;

| **[Partial texts](http://localhost/phpmyadmin/index.php)** | | | | **[name](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+name+FROM+students+WHERE+department_id+=+1++%0AORDER+BY+`students`.`name`+ASC&sql_signature=14cb44a33facb7ae03e20835bedf9abc6a43272fb1008fe8b6d80baec0cf2e91&session_max_rows=25&is_browse_distinct=0)** |  | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | Shruti |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | Aman |  |  |  |  |

### 3. Name starts with 'S'

SELECT \* FROM students WHERE name LIKE 'S%';

| **[student\_id](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+students+WHERE+name+LIKE+'S%'++%0AORDER+BY+`students`.`student_id`+ASC&sql_signature=551f69bd83af2f8bf4a4c175cf34731157d37585eaf9f335208422827eb56e7a&session_max_rows=25&is_browse_distinct=0)** | **[name](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+students+WHERE+name+LIKE+'S%'++%0AORDER+BY+`students`.`name`+ASC&sql_signature=c42e430b1f9e0e70903f60059508b8db7dca94ca66986620fbdb2b4516985667&session_max_rows=25&is_browse_distinct=0)** | **[age](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+students+WHERE+name+LIKE+'S%'++%0AORDER+BY+`students`.`age`+ASC&sql_signature=063f264702854fac6a5cf8f6dda8d68652c2cdb3dfb49597cb5085a44a614780&session_max_rows=25&is_browse_distinct=0)** | **[department\_id](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+students+WHERE+name+LIKE+'S%'++%0AORDER+BY+`students`.`department_id`+ASC&sql_signature=57e8737100c19a0e030dc961e46f8c8a0756959f9e57b6d1bdda097c1fc7cdbe&session_max_rows=25&is_browse_distinct=0)** |  | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 101 | Shruti | 20 | [1](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=0fb0bcee50f380f5619434b7cae958be3d6c1eda94e102e0779a1d4760b26216&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+1" \o "Computer Science) |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 104 | Sneha | 20 | [3](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=eb1f8c13d4ed528cf1dd6d49d741e6f636e9c4e0580d3cfb996cd400bc686239&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+3" \o "Physics) |

### 4. Update age of 'Shruti'

UPDATE students SET age = 19 WHERE name = 'Shruti';

| **[Partial texts](http://localhost/phpmyadmin/index.php)** | | | | **[student\_id IMG_257 1](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+`students`++%0AORDER+BY+`students`.`student_id`+DESC&sql_signature=225a3cffdc5e0cfe95120e811f69ddc47317d06fe1a394d65a2d70afd652f04f&session_max_rows=25&is_browse_distinct=0)** | **[name](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+`students`++%0AORDER+BY+`students`.`name`+ASC&sql_signature=f9f4cca4feec27664984195237fe9a03f0a2f9f7c79d20bf7381bdf5070407c2&session_max_rows=25&is_browse_distinct=0)** | **[age](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+`students`++%0AORDER+BY+`students`.`age`+ASC&sql_signature=3270359f1313f4f30f0bbf3cc9fe4bb22fc75b16fd1c174400e2d2cf2af90297&session_max_rows=25&is_browse_distinct=0)** | **[department\_id](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+`students`++%0AORDER+BY+`students`.`department_id`+ASC&sql_signature=0e7492640cf3ac3881733188c77c0832ce2bb01957717b79306d59fc1ec25d2c&session_max_rows=25&is_browse_distinct=0)** |  | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 101 | Shruti | 19 | [1](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=0fb0bcee50f380f5619434b7cae958be3d6c1eda94e102e0779a1d4760b26216&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+1" \o "Computer Science) |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 102 | Rahul | 21 | [2](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=52cc3a12a53e6424146e396ee3cde77341f3881ca880794f68c62e737785b6e1&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+2" \o "Mathematics) |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 103 | Aman | 22 | [1](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=0fb0bcee50f380f5619434b7cae958be3d6c1eda94e102e0779a1d4760b26216&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+1" \o "Computer Science) |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 104 | Sneha | 20 | [3](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=eb1f8c13d4ed528cf1dd6d49d741e6f636e9c4e0580d3cfb996cd400bc686239&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+3" \o "Physics) |  |  |  |  |

### 5. Delete

| **[Full texts](http://localhost/phpmyadmin/index.php)** | | | | **[student\_id IMG_257 1](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+`students`++%0AORDER+BY+`students`.`student_id`+DESC&sql_signature=225a3cffdc5e0cfe95120e811f69ddc47317d06fe1a394d65a2d70afd652f04f&session_max_rows=25&is_browse_distinct=0)** | **[name](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+`students`++%0AORDER+BY+`students`.`name`+ASC&sql_signature=f9f4cca4feec27664984195237fe9a03f0a2f9f7c79d20bf7381bdf5070407c2&session_max_rows=25&is_browse_distinct=0)** | **[age](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+`students`++%0AORDER+BY+`students`.`age`+ASC&sql_signature=3270359f1313f4f30f0bbf3cc9fe4bb22fc75b16fd1c174400e2d2cf2af90297&session_max_rows=25&is_browse_distinct=0)** | **[department\_id](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=students&sql_query=SELECT+*+FROM+`students`++%0AORDER+BY+`students`.`department_id`+ASC&sql_signature=0e7492640cf3ac3881733188c77c0832ce2bb01957717b79306d59fc1ec25d2c&session_max_rows=25&is_browse_distinct=0)** |  | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 101 | Shruti | 19 | [1](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=0fb0bcee50f380f5619434b7cae958be3d6c1eda94e102e0779a1d4760b26216&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+1" \o "Computer Science) |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 102 | Rahul | 21 | [2](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=52cc3a12a53e6424146e396ee3cde77341f3881ca880794f68c62e737785b6e1&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+2" \o "Mathematics) |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 104 | Sneha | 20 | [3](http://localhost/phpmyadmin/index.php?route=/sql&db=college_db&table=departments&pos=0&sql_signature=eb1f8c13d4ed528cf1dd6d49d741e6f636e9c4e0580d3cfb996cd400bc686239&sql_query=SELECT+*+FROM+`college_db`.`departments`+WHERE+`department_id`+=+3" \o "Physics) |  |  |  |  |