

**Query 1: Find the names of all instructors.**

select name

from instructor;

**name**

Lembr

Bawa

Yazdi

Wieland

DAgostino

Liley

Kean

Atanassov

Moreira

Gustafsson

Bourrier

Bondi

Soisalon-Soininen

Morris

Arias

Murata

Tung

Luo

Vicentino

Romero

Lent

Sarkar

Shuming

Konstantinides

Bancilhon

**Query 2: Find the department names of all instructors.**

select dept\_name

from instructor;

**dept\_name**

Accounting

Accounting

Accounting

Accounting

Astronomy

Athletics

Athletics

Athletics

Athletics

Athletics

Biology

Biology

Comp. Sci.

Comp. Sci.

Cybernetics

Cybernetics

Cybernetics

Cybernetics

Elec. Eng.

Elec. Eng.

Elec. Eng.

Elec. Eng.

English

English

English

**Query 3: Force the elimination of duplicates.**

select distinct dept\_name

from instructor;

**dept\_name**

Accounting

Astronomy

Athletics

Biology

Comp. Sci.

Cybernetics

Elec. Eng.

English

Finance

Geology

Languages

Marketing

Mech. Eng.

Physics

Pol. Sci.

Psychology

Statistics

**Query 4: “Find the names of all instructors in the Computer Science department who have salary greater than $70,000.**

select name

from instructor

where dept\_name = 'Comp. Sci.' and salary > 70000;

**name**

Bourrier

Bondi

**Query 5: Retrieve the names of all instructors, along with their department names and department building name.**

select name, instructor.dept\_name, building

from instructor, department

where instructor.dept\_name = department.dept\_name;

| [**name**](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=instructor&sql_query=select+name%2C+instructor.dept_name%2C+building%0D%0Afrom+instructor%2C+department%0D%0Awhere+instructor.dept_name+%3D+department.dept_name++%0AORDER+BY+%60instructor%60.%60name%60+ASC&sql_signature=271ef4698c5e3cfafd4a1ef9a0cae96978d6bfeabd4396f6b43e7ca284a3ce72&session_max_rows=25&is_browse_distinct=0) | [**dept\_name**](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=instructor&sql_query=select+name%2C+instructor.dept_name%2C+building%0D%0Afrom+instructor%2C+department%0D%0Awhere+instructor.dept_name+%3D+department.dept_name++%0AORDER+BY+%60instructor%60.%60dept_name%60+ASC&sql_signature=b893afa3115a5dc34c04fbf4f6b2df4af8f588c4509c2064481a4eca2c0de000&session_max_rows=25&is_browse_distinct=0) | [**building**](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=instructor&sql_query=select+name%2C+instructor.dept_name%2C+building%0D%0Afrom+instructor%2C+department%0D%0Awhere+instructor.dept_name+%3D+department.dept_name++%0AORDER+BY+%60department%60.%60building%60+ASC&sql_signature=8690c6284b7992d296d14fe9ef683d6291c4a69845eedaf0d199bf5a9deb2255&session_max_rows=25&is_browse_distinct=0) |  |
| --- | --- | --- | --- |
| Lembr | [Accounting](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=fd2b9c9345eae1fb3fcf35c23ed22540f4db9f25a2832976d6bc507b10dce164&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Accounting%27) | Saucon |  |
| Moreira | [Accounting](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=fd2b9c9345eae1fb3fcf35c23ed22540f4db9f25a2832976d6bc507b10dce164&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Accounting%27) | Saucon |  |
| Hau | [Accounting](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=fd2b9c9345eae1fb3fcf35c23ed22540f4db9f25a2832976d6bc507b10dce164&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Accounting%27) | Saucon |  |
| Ullman | [Accounting](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=fd2b9c9345eae1fb3fcf35c23ed22540f4db9f25a2832976d6bc507b10dce164&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Accounting%27) | Saucon |  |
| Romero | [Astronomy](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=fe3c1dd77fd06d983f45913ceff896446404a827a37946632a348385808997a3&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Astronomy%27) | Taylor |  |
| Bawa | [Athletics](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=7795177a95b8365039a7f3d1e4522e2d603865958ccb57193a535fdf4cc3a77e&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Athletics%27) | Bronfman |  |
| Yazdi | [Athletics](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=7795177a95b8365039a7f3d1e4522e2d603865958ccb57193a535fdf4cc3a77e&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Athletics%27) | Bronfman |  |
| Murata | [Athletics](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=7795177a95b8365039a7f3d1e4522e2d603865958ccb57193a535fdf4cc3a77e&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Athletics%27) | Bronfman |  |
| Tung | [Athletics](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=7795177a95b8365039a7f3d1e4522e2d603865958ccb57193a535fdf4cc3a77e&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Athletics%27) | Bronfman |  |
| Jaekel | [Athletics](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=7795177a95b8365039a7f3d1e4522e2d603865958ccb57193a535fdf4cc3a77e&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Athletics%27) | Bronfman |  |
| Queiroz | [Biology](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=8609254d5fdb2652c1739bd1f15f1c2d7da5d74af5d4f7bb347c6639bf834286&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Biology%27) | Candlestick |  |
| Valtchev | [Biology](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=8609254d5fdb2652c1739bd1f15f1c2d7da5d74af5d4f7bb347c6639bf834286&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Biology%27) | Candlestick |  |
| Bourrier | [Comp. Sci.](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=573778ef067d2bcf2dea5ec33abf5c698f4fc5a947845f0bdbd292790e0cbcdf&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Comp.+Sci.%27) | Lamberton |  |
| Bondi | [Comp. Sci.](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=573778ef067d2bcf2dea5ec33abf5c698f4fc5a947845f0bdbd292790e0cbcdf&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Comp.+Sci.%27) | Lamberton |  |
| McKinnon | [Cybernetics](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=bb794bcf49aec9219fd74c254458ed68a7c0ae7433f47fcbb82ed44c4f31d5e7&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Cybernetics%27) | Mercer |  |
| Pimenta | [Cybernetics](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=bb794bcf49aec9219fd74c254458ed68a7c0ae7433f47fcbb82ed44c4f31d5e7&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Cybernetics%27) | Mercer |  |
| Bietzk | [Cybernetics](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=bb794bcf49aec9219fd74c254458ed68a7c0ae7433f47fcbb82ed44c4f31d5e7&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Cybernetics%27) | Mercer |  |
| Dale | [Cybernetics](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=bb794bcf49aec9219fd74c254458ed68a7c0ae7433f47fcbb82ed44c4f31d5e7&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Cybernetics%27) | Mercer |  |
| Gustafsson | [Elec. Eng.](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=87b47560b9a49883b7006fa3332916851449c75ac0dbeba87f09934dfbef409f&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Elec.+Eng.%27) | Main |  |
| Vicentino | [Elec. Eng.](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=87b47560b9a49883b7006fa3332916851449c75ac0dbeba87f09934dfbef409f&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Elec.+Eng.%27) | Main |  |
| Sullivan | [Elec. Eng.](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=87b47560b9a49883b7006fa3332916851449c75ac0dbeba87f09934dfbef409f&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Elec.+Eng.%27) | Main |  |
| Levine | [Elec. Eng.](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=87b47560b9a49883b7006fa3332916851449c75ac0dbeba87f09934dfbef409f&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Elec.+Eng.%27) | Main |  |
| Kean | [English](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=4fdf188908e947a99ad412b2d8c87917820b585a9ae881dbd0fb3c41ebe5391b&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27English%27) | Palmer |  |
| Luo | [English](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=4fdf188908e947a99ad412b2d8c87917820b585a9ae881dbd0fb3c41ebe5391b&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27English%27) | Palmer |  |
| Yin | [English](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=4fdf188908e947a99ad412b2d8c87917820b585a9ae881dbd0fb3c41ebe5391b&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27English%27) | Palmer |  |

**Query 6: For all instructors in the university who have taught some course, find their names and the course ID of all courses they taught.**

select name, course\_id

from instructor, teaches

where instructor.ID= teaches.ID;

| [**name**](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=instructor&sql_query=select+name%2C+course_id%0D%0Afrom+instructor%2C+teaches%0D%0Awhere+instructor.ID%3D+teaches.ID++%0AORDER+BY+%60instructor%60.%60name%60+ASC&sql_signature=4aa59f10a59bcd49458abfcd919ae5992fd9764fbd6cfaeb6e814419624e6905&session_max_rows=25&is_browse_distinct=0) | [**course\_id**](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=instructor&sql_query=select+name%2C+course_id%0D%0Afrom+instructor%2C+teaches%0D%0Awhere+instructor.ID%3D+teaches.ID++%0AORDER+BY+%60teaches%60.%60course_id%60+ASC&sql_signature=54a0961a44940280bb63d9c4f06bd01b624ebb2a6c5eecfddb0faac02a5b4841&session_max_rows=25&is_browse_distinct=0) |  |
| --- | --- | --- |
| Lembr | 200 |  |
| Lembr | 843 |  |
| Bawa | 457 |  |
| Wieland | 545 |  |
| Wieland | 581 |  |
| Wieland | 591 |  |
| DAgostino | 338 |  |
| DAgostino | 338 |  |
| DAgostino | 352 |  |
| DAgostino | 400 |  |
| DAgostino | 400 |  |
| DAgostino | 482 |  |
| DAgostino | 599 |  |
| DAgostino | 642 |  |
| DAgostino | 663 |  |
| DAgostino | 867 |  |
| DAgostino | 962 |  |
| DAgostino | 972 |  |
| DAgostino | 991 |  |
| Liley | 192 |  |
| Kean | 366 |  |
| Kean | 808 |  |
| Atanassov | 603 |  |
| Atanassov | 604 |  |
| Gustafsson | 169 |  |

**Query 7: only instructor names and course identifiers for instructors in the Computer Science department**

select name, course\_id

from instructor, teaches

where instructor.ID= teaches.ID and instructor.dept\_name = 'Comp. Sci.';

| [**name**](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=instructor&sql_query=select+name%2C+course_id%0D%0Afrom+instructor%2C+teaches%0D%0Awhere+instructor.ID%3D+teaches.ID+and+instructor.dept_name+%3D+%27Comp.+Sci.%27++%0AORDER+BY+%60instructor%60.%60name%60+ASC&sql_signature=3d06c9fcfa9f28395ddfea2302eaebe093f12bfd38eebc0377e55e5aa348fd97&session_max_rows=25&is_browse_distinct=0) | [**course\_id**](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=instructor&sql_query=select+name%2C+course_id%0D%0Afrom+instructor%2C+teaches%0D%0Awhere+instructor.ID%3D+teaches.ID+and+instructor.dept_name+%3D+%27Comp.+Sci.%27++%0AORDER+BY+%60teaches%60.%60course_id%60+ASC&sql_signature=c92bccaeb2b20c4ae11d0c5211590024a17f760fb6bf797a3a4a9d604fd2a63d&session_max_rows=25&is_browse_distinct=0) |  |
| --- | --- | --- |
| Bourrier | 949 |  |
| Bourrier | 960 |  |
| Bondi | 274 |  |
| Bondi | 571 |  |
| Bondi | 747 |  |

Query 8: **Ordering the Display of Tuples**

select \*

from instructor

order by salary desc, name asc;

| **[Full texts](http://localhost/phpmyadmin/index.php)** | | | | [**ID**](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=instructor&sql_query=select+%2A%0D%0Afrom+instructor++%0AORDER+BY+%60instructor%60.%60ID%60+ASC&sql_signature=5a676dfe3acf11804716ad70680b7cefde8c533e1faa6f0cf5fbf85c6008df96&session_max_rows=25&is_browse_distinct=0) | [**name [Ascending](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=instructor&sql_query=select+%2A%0D%0Afrom+instructor++%0AORDER+BY+%60instructor%60.%60name%60+DESC&sql_signature=fcd09335057f63543d8bc12a80a46721258402a302f184c50cecf8fe6e7284c3&session_max_rows=25&is_browse_distinct=0) 2**](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=instructor&sql_query=select+%2A%0D%0Afrom+instructor++%0AORDER+BY+%60instructor%60.%60name%60+DESC&sql_signature=fcd09335057f63543d8bc12a80a46721258402a302f184c50cecf8fe6e7284c3&session_max_rows=25&is_browse_distinct=0) | [**dept\_name**](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=instructor&sql_query=select+%2A%0D%0Afrom+instructor++%0AORDER+BY+%60instructor%60.%60dept_name%60+ASC&sql_signature=d43db7c74a07a1a5fb935d2a0312554a277f2afe0e142364b53f5d6c9c571924&session_max_rows=25&is_browse_distinct=0) | [**salary [Descending](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=instructor&sql_query=select+%2A%0D%0Afrom+instructor++%0AORDER+BY+%60instructor%60.%60salary%60+ASC&sql_signature=94f84ee1ac0d7574adb1369570ee8af3169fa1c230b3c3891b6f6804538815de&session_max_rows=25&is_browse_distinct=0) 1**](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=instructor&sql_query=select+%2A%0D%0Afrom+instructor++%0AORDER+BY+%60instructor%60.%60salary%60+ASC&sql_signature=94f84ee1ac0d7574adb1369570ee8af3169fa1c230b3c3891b6f6804538815de&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) | 19368 | Wieland | [Pol. Sci.](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=ffcc869fdf2728642ff410e8edadd008e4fd23efe4fd6c835fea5db5aebe5d6c&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Pol.+Sci.%27) | 124651 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 74420 | Voronina | [Physics](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=6b1097ed62e85fc84ef38930d0d84c2c4c88d71e67a335f9f48ca0312abbe3cd&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Physics%27) | 121142 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 96895 | Mird | [Marketing](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=e60eacfe99fd9a49543cc65a730f49ce5f63f484c3877914cd2836c6a9175bc2&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Marketing%27) | 119921 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 95709 | Sakurai | [English](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=529c3f4c404c2dbfbca47c895ca744276fcc5395c902fede082e558cc3f88cf9&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27English%27) | 118144 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 90376 | Bietzk | [Cybernetics](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=ad140af942ef43bac352cad6b75722af7e1d951aa0e2acac30a86d55755ba4e7&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Cybernetics%27) | 117837 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 34175 | Bondi | [Comp. Sci.](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=39cf7b72cf7028328c329fd1f5d92699a2001f8b23a5b925cab392a3d0ec68e1&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Comp.+Sci.%27) | 115469 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 50330 | Shuming | [Physics](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=6b1097ed62e85fc84ef38930d0d84c2c4c88d71e67a335f9f48ca0312abbe3cd&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Physics%27) | 108012 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 48507 | Lent | [Mech. Eng.](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=7bd18958aded5f113e10beba7f0b4a94b418af56b3c36a4a666c16b1d0fc3970&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Mech.+Eng.%27) | 107978 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 74426 | Kenje | [Marketing](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=e60eacfe99fd9a49543cc65a730f49ce5f63f484c3877914cd2836c6a9175bc2&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Marketing%27) | 106555 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 6569 | Mingoz | [Finance](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=909d86f9de60a3deb47e44347c15d110dd4ef95fd1da3a8c8941c646850e5909&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Finance%27) | 105311 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 37687 | Arias | [Statistics](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=2f48b4f0794ea634ffcc130a510c36d8bb2af7c7b2d108c49955b471fed57d18&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Statistics%27) | 104563 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 63287 | Jaekel | [Athletics](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=c351fc289053ccf71b7ef7224535f32d3cd6a3cbf185daf19c3cb2aa6eb438c3&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Athletics%27) | 103147 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 77346 | Mahmoud | [Geology](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=41759120e0f029ba33c31508a57ffc0b8eeab75cb1bb483e40a534aa066e5450&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Geology%27) | 99383 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 16807 | Yazdi | [Athletics](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=c351fc289053ccf71b7ef7224535f32d3cd6a3cbf185daf19c3cb2aa6eb438c3&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Athletics%27) | 98334 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 63395 | McKinnon | [Cybernetics](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=ad140af942ef43bac352cad6b75722af7e1d951aa0e2acac30a86d55755ba4e7&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Cybernetics%27) | 94334 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 99052 | Dale | [Cybernetics](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=ad140af942ef43bac352cad6b75722af7e1d951aa0e2acac30a86d55755ba4e7&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Cybernetics%27) | 93349 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 25946 | Liley | [Languages](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=d960a385be199b2d641b6515bc895d4a9ab82cb408dac245ae736f434ff5243c&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Languages%27) | 90892 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 73623 | Sullivan | [Elec. Eng.](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=499b1184b30aea50966d530546c39d91a89070c6b9ef99ed2a5881ea1b5b31a2&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Elec.+Eng.%27) | 90038 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 79653 | Levine | [Elec. Eng.](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=499b1184b30aea50966d530546c39d91a89070c6b9ef99ed2a5881ea1b5b31a2&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Elec.+Eng.%27) | 89806 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 4233 | Luo | [English](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=529c3f4c404c2dbfbca47c895ca744276fcc5395c902fede082e558cc3f88cf9&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27English%27) | 88791 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 52647 | Bancilhon | [Pol. Sci.](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=ffcc869fdf2728642ff410e8edadd008e4fd23efe4fd6c835fea5db5aebe5d6c&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Pol.+Sci.%27) | 87958 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 48570 | Sarkar | [Pol. Sci.](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=ffcc869fdf2728642ff410e8edadd008e4fd23efe4fd6c835fea5db5aebe5d6c&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Pol.+Sci.%27) | 87550 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 28400 | Atanassov | [Statistics](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=2f48b4f0794ea634ffcc130a510c36d8bb2af7c7b2d108c49955b471fed57d18&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Statistics%27) | 84983 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 3199 | Gustafsson | [Elec. Eng.](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=499b1184b30aea50966d530546c39d91a89070c6b9ef99ed2a5881ea1b5b31a2&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Elec.+Eng.%27) | 82534 |  |  |  |  |
|  | [Edit Edit](http://localhost/phpmyadmin/index.php) | [Copy Copy](http://localhost/phpmyadmin/index.php) | [Delete Delete](http://localhost/phpmyadmin/index.php) | 3335 | Bourrier | [Comp. Sci.](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=department&pos=0&sql_signature=39cf7b72cf7028328c329fd1f5d92699a2001f8b23a5b925cab392a3d0ec68e1&sql_query=SELECT+%2A+FROM+%60university%60.%60department%60+WHERE+%60dept_name%60+%3D+%27Comp.+Sci.%27) | 80798 |  |  |  |  |

**Query 9: find the names of instructors with salary amounts between $90,000 and $100,000**

select name

from instructor

where salary between 90000 and 100000;

**name**

Yazdi

Liley

McKinnon

Sullivan

Mahmoud

Dale

**Query 10: The *c1* relation, listing courses taught in Fall 2017**

select name, course\_id

from instructor, teaches

where (instructor.ID, dept\_name) = (teaches.ID, 'Biology');

**name course\_id**

Queiroz 559

Valtchev 415

Valtchev 702

**Query 11: The set of all courses taught in the Fall 2009 semester:**

select course\_id

from section

where semester = 'Fall' and year= 2009;

**course\_id**

105

237

242

960

304

334

486

**Query 12: The set of all courses taught in the Spring 2008 semester:**

select course\_id

from section

where semester = 'Spring' and year= 2008;

**course\_id**

362

852

991

962

237

349

345

158

704

**Query 13: Find the set of all courses taught either in Fall 2009 or in Spring 2008, or both.**

(select course\_id

from section

where semester = 'Fall' and year= 2009)

union

(select course\_id

from section

where semester = 'Spring' and year= 2008);

**course\_id**

105

237

242

960

304

334

486

362

852

991

962

349

345

158

704

**Query 14: To find the set of all courses taught in both the Fall 2009 and Spring 2008:**

(select course\_id

from section

where semester = 'Fall' and year= 2009)

intersect

(select course\_id

from section

where semester = 'Spring' and year= 2008);

| **course\_id** |  |
| --- | --- |
| [237](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=course&pos=0&sql_signature=8cd0c6d209d564a64639ae35133894f96fed9fa2ca095d71bf65177a7f8398ad&sql_query=SELECT+%2A+FROM+%60university%60.%60course%60+WHERE+%60course_id%60+%3D+%27237%27) |  |

**Query 15: To find all courses taught in the Fall 2009 semester but not in the Spring 2008 semester**

(select course\_id

from section

where semester = 'Fall' and year= 2009)

except

(select course\_id

from section

where semester = 'Spring' and year= 2008);

**course\_id**

105

242

960

304

334

486

**Query 16: Find the average salary of instructors in the Computer Science department.**

select avg (salary)

from instructor

where dept\_name = 'Comp. Sci.';

| **avg (salary)** |  |
| --- | --- |
| 98133.5000 |  |

Query 17: Find the total number of instructors who teach a course in the Spring 2008 semester

select count(distinct ID)

from teaches

where semester = 'Spring' and year = 2008;

| **count(distinct ID)** |  |
| --- | --- |
| **6** |  |

Query 18: find the number of tuples in the *course* relation

select count(\*)

from course;

| **count(\*)** |  |
| --- | --- |
| 200 |  |

Query 19: Find the average salary in each department.

select dept\_name, avg (salary) as avg\_salary

from instructor

group by dept\_name;

dept\_name avg\_salary

Accounting 48716.592500

Astronomy 79070.080000

Athletics 77098.198000

Biology 61287.250000

Comp. Sci. 98133.470000

Cybernetics 96346.567500

Elec. Eng. 74162.740000

English 72089.050000

Finance 105311.380000

Geology 99382.590000

Languages 57421.856667

Marketing 84097.437500

Mech. Eng. 79813.020000

Physics 114576.900000

Pol. Sci. 100053.073333

Psychology 61143.050000

Statistics 67795.441667

Query 20: Find the number of instructors in each department who teach a course in the Spring 2008 semester.

select dept\_name, count(distinct instructor.ID) as instr\_count

from instructor, teaches

where instructor.ID= teaches.ID and

semester = 'Spring' and year = 2008

group by dept\_name;

dept\_name instr\_count

Accounting 1

Athletics 1

Cybernetics 1

Finance 1

Geology 1

Psychology 1

Query 21: Find the average salary of instructors in those departments where the average salary is more than $42,000

select dept\_name, avg(salary) as avg\_salary

from instructor

group by dept\_name

having avg (salary) > 42000;

dept\_name avg\_salary

Accounting 48716.592500

Astronomy 79070.080000

Athletics 77098.198000

Biology 61287.250000

Comp. Sci. 98133.470000

Cybernetics 96346.567500

Elec. Eng. 74162.740000

English 72089.050000

Finance 105311.380000

Geology 99382.590000

Languages 57421.856667

Marketing 84097.437500

Mech. Eng. 79813.020000

Physics 114576.900000

Pol. Sci. 100053.073333

Psychology 61143.050000

Statistics 67795.441667

Query 22: For each course section offered in 2007, find the average total credits (*tot cred*) of all students enrolled in the section, if the section has at least 2 students.

select course\_id, semester, year, sec\_id, avg(tot\_cred)

from student, takes

where student.ID= takes.ID and year = 2007

group by course\_id, semester, year, sec\_id

having count(student.ID) >= 2;

| [**course\_id**](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=instructor&sql_query=select+course_id%2C+semester%2C+year%2C+sec_id%2C+avg%28tot_cred%29%0D%0Afrom+student%2C+takes%0D%0Awhere+student.ID%3D+takes.ID+and+year+%3D+2007%0D%0Agroup+by+course_id%2C+semester%2C+year%2C+sec_id%0D%0Ahaving+count%28student.ID%29+%3E%3D+2++%0AORDER+BY+%60takes%60.%60course_id%60+ASC&sql_signature=ba6355eee53abefd69f12618764fa496dc85d22d3f051ea0c6ae6a2d52e2fad6&session_max_rows=25&is_browse_distinct=0) | [**semester**](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=instructor&sql_query=select+course_id%2C+semester%2C+year%2C+sec_id%2C+avg%28tot_cred%29%0D%0Afrom+student%2C+takes%0D%0Awhere+student.ID%3D+takes.ID+and+year+%3D+2007%0D%0Agroup+by+course_id%2C+semester%2C+year%2C+sec_id%0D%0Ahaving+count%28student.ID%29+%3E%3D+2++%0AORDER+BY+%60takes%60.%60semester%60+ASC&sql_signature=6649e9b509a9d9e15b965aa29f21b11db78702927cb764ea48f5c52d34e5811c&session_max_rows=25&is_browse_distinct=0) | [**year**](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=instructor&sql_query=select+course_id%2C+semester%2C+year%2C+sec_id%2C+avg%28tot_cred%29%0D%0Afrom+student%2C+takes%0D%0Awhere+student.ID%3D+takes.ID+and+year+%3D+2007%0D%0Agroup+by+course_id%2C+semester%2C+year%2C+sec_id%0D%0Ahaving+count%28student.ID%29+%3E%3D+2++%0AORDER+BY+%60takes%60.%60year%60+ASC&sql_signature=76935a35367837aa4ac8faff6ac8107a44126f2c2a008cf1e5326ea4b87cffed&session_max_rows=25&is_browse_distinct=0) | [**sec\_id**](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=instructor&sql_query=select+course_id%2C+semester%2C+year%2C+sec_id%2C+avg%28tot_cred%29%0D%0Afrom+student%2C+takes%0D%0Awhere+student.ID%3D+takes.ID+and+year+%3D+2007%0D%0Agroup+by+course_id%2C+semester%2C+year%2C+sec_id%0D%0Ahaving+count%28student.ID%29+%3E%3D+2++%0AORDER+BY+%60takes%60.%60sec_id%60+ASC&sql_signature=5eea07853a18cf33e99012171d937be5e5563c07c070fa60072f071f39c01f96&session_max_rows=25&is_browse_distinct=0) | [**avg(tot\_cred)**](http://localhost/phpmyadmin/index.php?route=/sql&db=university&table=instructor&sql_query=select+course_id%2C+semester%2C+year%2C+sec_id%2C+avg%28tot_cred%29%0D%0Afrom+student%2C+takes%0D%0Awhere+student.ID%3D+takes.ID+and+year+%3D+2007%0D%0Agroup+by+course_id%2C+semester%2C+year%2C+sec_id%0D%0Ahaving+count%28student.ID%29+%3E%3D+2++%0AORDER+BY+%60avg%28tot_cred%29%60+ASC&sql_signature=6d58a1101a4ec760fac548e3a5546a952d0298c8d7e3e62ef18fd013a22d9c8e&session_max_rows=25&is_browse_distinct=0) |  |
| --- | --- | --- | --- | --- | --- |
| 169 | Spring | 2007 | 1 | 63.8900 |  |
| 200 | Spring | 2007 | 1 | 64.0468 |  |
| 258 | Fall | 2007 | 1 | 63.5748 |  |
| 338 | Spring | 2007 | 1 | 66.0512 |  |
| 400 | Spring | 2007 | 1 | 68.2416 |  |
| 408 | Spring | 2007 | 1 | 66.5084 |  |
| 468 | Fall | 2007 | 2 | 64.9175 |  |
| 489 | Fall | 2007 | 1 | 69.0616 |  |
| 612 | Fall | 2007 | 1 | 69.6807 |  |
| 631 | Spring | 2007 | 1 | 65.9568 |  |
| 893 | Fall | 2007 | 1 | 62.2183 |  |
| 949 | Fall | 2007 | 1 | 64.3729 |  |

Query 23: Find all the courses taught in the both the Fall 2007 and Spring 2008 semesters.

select distinct course\_id

from section

where semester = 'Fall' and year= 2007 and

course\_id in (select course\_id

from section

where semester = 'Spring' and year= 2008);

NULL

Query 24: Find the names of all instructors whose salary is greater than at least one instructor

in the Biology department.

select dept\_name

from instructor

group by dept\_name

having avg(salary) >= all(select avg (salary)

from instructor

group by dept\_name);

Physics

Query 25: For all students in the university who have taken some course, find their names and the course ID of all courses they took

select name, course\_id

from student natural join takes;

name course\_id

Manber 239

Manber 319

Manber 362

Manber 493

Manber 571

Manber 642

Manber 663

Manber 696

Manber 748

Manber 802

Manber 959

Manber 962

Manber 972

Zelty 242

Zelty 334

Zelty 338

Zelty 338

Zelty 352

Zelty 362

Zelty 408

Zelty 408

Zelty 443

Zelty 445

Zelty 457

Zelty 486

Query 26: List the names of students along with the titles of courses that they have taken.

select name, title

from student natural join takes natural join course;

name title

Bedny Image Processing

Langer Image Processing

Williams Image Processing

Kanata Image Processing

Leitner Image Processing

Canellas Image Processing

Orono Image Processing

Fung Image Processing

Lui Image Processing

Hartsk Image Processing

Kruglyak Image Processing

Karande Image Processing

Nagle Image Processing

Higuchi Image Processing

Higuchi Image Processing

Fujii Image Processing

Eguchi Image Processing

Belmes Image Processing

Im Image Processing

Kelly Image Processing

Riser Image Processing

Aly Image Processing

Scheine Image Processing

Weiss Image Processing

Sanchez Image Processing

Query 27: