**Task1: Connect to MySql**

shyam007@kh1260-02 (/home/shyam007) % module load soft/mysql

shyam007@kh1260-02 (/home/shyam007) % mysql -uC4707F13U70 -h egon.cs.umn.edu -P3307 -p --local-infile=1 C4707F13U70

Enter password:

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 158843

Server version: 5.5.20-log MySQL Community Server (GPL)

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affiliates. Other names may be trademarks of their respective

owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;

+--------------------+

| Database |

+--------------------+

| information\_schema |

| C4707F13U70 |

+--------------------+

2 rows in set (0.05 sec)

mysql> use C4707F13U70

Database changed

**Task2: Create Tables**

mysql> CREATE TABLE Student (

-> snum INTEGER NOT NULL DEFAULT '0',

-> sname CHAR(20) DEFAULT NULL,

-> major CHAR(20) DEFAULT NULL,

-> level CHAR(20) DEFAULT NULL,

-> age INTEGER DEFAULT NULL,

-> PRIMARY KEY (snum))

-> ;

Query OK, 0 rows affected (0.11 sec)

mysql> CREATE TABLE Faculty (

-> fid INTEGER NOT NULL DEFAULT '0',

-> fname CHAR(20) DEFAULT NULL,

-> deptid INTEGER DEFAULT NULL,

-> PRIMARY KEY (fid));

Query OK, 0 rows affected (0.09 sec)

mysql> CREATE TABLE Class (

-> name CHAR(20) NOT NULL DEFAULT '',

-> meets\_at TIME DEFAULT NULL,

-> room CHAR(20) DEFAULT NULL,

-> fid INTEGER DEFAULT NULL,

-> PRIMARY KEY (name),

-> FOREIGN KEY (fid) REFERENCES Faculty (fid));

Query OK, 0 rows affected (0.10 sec)

mysql> CREATE TABLE Enrolled (

-> snum INTEGER NOT NULL DEFAULT '0',

-> cname CHAR(20) NOT NULL DEFAULT '',

-> PRIMARY KEY (snum, cname),

-> FOREIGN KEY (snum) REFERENCES Student (snum),

-> FOREIGN KEY (cname) REFERENCES Class (name));

Query OK, 0 rows affected (0.18 sec)

**Task3: Load Data**

mysql> LOAD DATA LOCAL INFILE '/home/shyam007/Courses/4707/Assignment/Student.csv' INTO TABLE Faculty FIELDS TERMINATED BY ',' ENCLOSED BY '"' LINES TERMINATED BY '\n';

Query OK, 95 rows affected (0.12 sec)

Records: 95 Deleted: 0 Skipped: 0 Warnings: 0

mysql> select \* from Student;

+------+-------------+-------+--------+------+

| snum | sname | major | level | age |

+------+-------------+-------+--------+------+

| 1 | Nathen | CS | level0 | 19 |

| 2 | Magdy | CS | level1 | 20 |

| 3 | Victor | CS | level2 | 21 |

| 4 | Nathaniel | CS | level3 | 22 |

| 5 | Kevin Ray | CS | level4 | 23 |

| 6 | Kyle | CS | level5 | 24 |

| 7 | Stefan | CS | level6 | 25 |

| 8 | Riley | CS | level0 | 26 |

| 9 | Daniel | CS | level1 | 27 |

| 10 | Carlos | MATH | level2 | 18 |

| 11 | Yi | CS | level3 | 20 |

| 12 | Deukyeol | CS | level4 | 22 |

| 13 | Chase | CS | level5 | 24 |

| 14 | Patrick | CS | level6 | 26 |

| 15 | Joseph | CS | level0 | 28 |

| 16 | Paul | CS | level1 | 30 |

| 17 | Brent | MATH | level2 | 16 |

| 18 | Sudeepto | MATH | level3 | 19 |

| 19 | Lingfei | MATH | level4 | 22 |

| 20 | David | CS | level5 | 25 |

| 21 | Neha | MATH | level6 | 28 |

| 22 | Heesun | CS | level0 | 31 |

| 23 | Jungwoo | CS | level1 | 34 |

| 24 | Albert | CS | level2 | 37 |

| 25 | Jack | MATH | level3 | 40 |

| 26 | Colton | CS | level4 | 17 |

| 27 | Mark | CS | level5 | 18 |

| 28 | Thomas | CS | level6 | 19 |

| 29 | Maximillian | MATH | level4 | 20 |

| 30 | Sam | CS | level5 | 21 |

| 31 | David | CS | level6 | 22 |

| 32 | Ryan | CS | level4 | 23 |

| 33 | Nick | CS | level5 | 24 |

| 34 | Stephen | MATH | level6 | 25 |

| 35 | Christopher | MATH | level4 | 26 |

| 36 | Andrew | MATH | level5 | 27 |

| 37 | Daniel | MATH | level6 | 28 |

| 38 | Tyler | MATH | level4 | 19 |

| 39 | Peiqi | CS | level5 | 21 |

| 40 | Johanna | MATH | level6 | 23 |

| 41 | Chunxi | MATH | level4 | 25 |

| 42 | Cuong | CS | level5 | 27 |

| 43 | Qiyue | CS | level6 | 29 |

| 44 | Elan | MATH | null | 31 |

| 45 | Dale | CS | null | 33 |

| 46 | Andrew | MATH | null | 35 |

| 47 | Eshitha | MATH | null | 17 |

| 48 | Will | CS | level4 | 18 |

| 49 | Adam | CS | level5 | 19 |

| 50 | Minh | CS | level6 | 20 |

| 51 | Jacob | CS | level4 | 21 |

| 52 | Jacob | CS | level5 | 22 |

| 53 | Shraddha | CS | level6 | 23 |

| 54 | Hieu | CS | level0 | 24 |

| 55 | Kevin | CS | level1 | 25 |

| 56 | Ashok | CS | level2 | 26 |

| 57 | Thomas | CS | level3 | 27 |

| 58 | Lingjun | CS | level4 | 28 |

| 59 | Kanika | CS | null | 29 |

| 60 | Xiaoyi | CS | null | 30 |

| 61 | Van | CS | level0 | 31 |

| 62 | Maxwell | CS | level1 | 32 |

| 63 | Yohanna | CS | level2 | 33 |

| 64 | Nicholas | CS | level3 | 34 |

| 65 | Michael | CS | level4 | 35 |

| 66 | David | Math | null | 36 |

| 67 | Efe | Math | null | 37 |

| 68 | Patrick | Math | null | 16 |

| 69 | Harrison | Math | null | 18 |

| 70 | Harshita | Math | null | 20 |

| 71 | Chirasak | Math | null | 22 |

| 72 | Daniel | Math | null | 24 |

| 73 | Qikai | Math | null | 26 |

| 74 | Zheng | Math | null | 28 |

| 75 | Alec | Math | level0 | 30 |

| 76 | Michael | Math | level1 | 32 |

| 77 | Shakil | Math | level2 | 34 |

| 78 | Jeremiah | Math | level3 | 36 |

| 79 | Nicholas | Math | level4 | 38 |

| 80 | Grayson | Math | null | 17 |

| 81 | Pamela-Rose | Math | null | 19 |

| 82 | Stephen | Math | null | 21 |

| 83 | Louis | Math | null | 23 |

| 84 | Qin | Math | null | 25 |

| 85 | Joel | Math | null | 27 |

| 86 | Samuel | Math | null | 29 |

| 87 | Kyle | Math | null | 31 |

| 88 | Daryl | CS | level0 | 33 |

| 89 | Yuanshun | CS | level1 | 35 |

| 90 | Bowen | CS | level2 | 37 |

| 91 | Chan Kit | CS | level3 | 39 |

| 92 | Muhan | CS | level4 | 41 |

| 93 | Yameng | CS | null | 19 |

| 94 | Zhen | CS | null | 21 |

| 95 | Cody | CS | null | 20 |

+------+-------------+-------+--------+------+

95 rows in set (0.00 sec)

mysql> LOAD DATA LOCAL INFILE '/home/shyam007/Courses/4707/Assignment/Faculty.csv' INTO TABLE Faculty FIELDS TERMINATED BY ',' ENCLOSED BY '"' LINES TERMINATED BY '\n';

Query OK, 4 rows affected (0.12 sec)

Records: 4 Deleted: 0 Skipped: 0 Warnings: 0

mysql> select \* from Faculty;

+-----+---------+--------+

| fid | fname | deptid |

+-----+---------+--------+

| 1 | Jaideep | 12 |

| 2 | Shashi | 33 |

| 3 | Vipin | 15 |

| 4 | John | 33 |

+-----+---------+--------+

4 rows in set (0.00 sec)

mysql> LOAD DATA LOCAL INFILE '/home/shyam007/Courses/4707/Assignment/Class.csv' INTO TABLE Class FIELDS TERMINATED BY ',' ENCLOSED BY '"' LINES TERMINATED By '\n';

Query OK, 5 rows affected (0.13 sec)

Records: 5 Deleted: 0 Skipped: 0 Warnings: 0

mysql> select \* from Class;

+-----------+----------+--------------+------+

| name | meets\_at | room | fid |

+-----------+----------+--------------+------+

| CSCI 4707 | 09:45:00 | Phys 170 | 1 |

| CSCI 5523 | 04:00:00 | Keller 3-230 | 3 |

| CSCI 5707 | 11:00:00 | Keller 3-125 | 2 |

| CSCI 8715 | 01:30:00 | Mech 102 | 2 |

| MATH 101 | 02:00:00 | Mech 102 | 1 |

+-----------+----------+--------------+------+

5 rows in set (0.00 sec)

mysql> LOAD DATA LOCAL INFILE '/home/shyam007/Courses/4707/Assignment/Enrolled.csv' INTO TABLE Enrolled FIELDS TERMINATED BY ',' ENCLOSED BY '"' LINES TERMINATED By '\n';

Query OK, 168 rows affected (0.13 sec)

Records: 171 Deleted: 0 Skipped: 3 Warnings: 0

mysql> select \* from Enrolled;

+------+-----------+

| snum | cname |

+------+-----------+

| 1 | CSCI 4707 |

| 3 | CSCI 4707 |

| 5 | CSCI 4707 |

| 6 | CSCI 4707 |

| 7 | CSCI 4707 |

| 8 | CSCI 4707 |

| 12 | CSCI 4707 |

| 15 | CSCI 4707 |

| 16 | CSCI 4707 |

| 17 | CSCI 4707 |

| 20 | CSCI 4707 |

| 21 | CSCI 4707 |

| 22 | CSCI 4707 |

| 24 | CSCI 4707 |

| 25 | CSCI 4707 |

| 26 | CSCI 4707 |

| 28 | CSCI 4707 |

| 30 | CSCI 4707 |

| 31 | CSCI 4707 |

| 35 | CSCI 4707 |

| 41 | CSCI 4707 |

| 45 | CSCI 4707 |

| 48 | CSCI 4707 |

| 50 | CSCI 4707 |

| 51 | CSCI 4707 |

| 53 | CSCI 4707 |

| 56 | CSCI 4707 |

| 57 | CSCI 4707 |

| 65 | CSCI 4707 |

| 67 | CSCI 4707 |

| 68 | CSCI 4707 |

| 70 | CSCI 4707 |

| 73 | CSCI 4707 |

| 75 | CSCI 4707 |

| 77 | CSCI 4707 |

| 78 | CSCI 4707 |

| 81 | CSCI 4707 |

| 86 | CSCI 4707 |

| 87 | CSCI 4707 |

| 92 | CSCI 4707 |

| 93 | CSCI 4707 |

| 94 | CSCI 4707 |

| 2 | CSCI 5523 |

| 5 | CSCI 5523 |

| 7 | CSCI 5523 |

| 9 | CSCI 5523 |

| 10 | CSCI 5523 |

| 11 | CSCI 5523 |

| 12 | CSCI 5523 |

| 13 | CSCI 5523 |

| 14 | CSCI 5523 |

| 15 | CSCI 5523 |

| 17 | CSCI 5523 |

| 23 | CSCI 5523 |

| 24 | CSCI 5523 |

| 25 | CSCI 5523 |

| 29 | CSCI 5523 |

| 30 | CSCI 5523 |

| 34 | CSCI 5523 |

| 36 | CSCI 5523 |

| 39 | CSCI 5523 |

| 40 | CSCI 5523 |

| 41 | CSCI 5523 |

| 42 | CSCI 5523 |

| 45 | CSCI 5523 |

| 47 | CSCI 5523 |

| 48 | CSCI 5523 |

| 50 | CSCI 5523 |

| 52 | CSCI 5523 |

| 54 | CSCI 5523 |

| 55 | CSCI 5523 |

| 56 | CSCI 5523 |

| 57 | CSCI 5523 |

| 58 | CSCI 5523 |

| 59 | CSCI 5523 |

| 60 | CSCI 5523 |

| 68 | CSCI 5523 |

| 69 | CSCI 5523 |

| 70 | CSCI 5523 |

| 71 | CSCI 5523 |

| 74 | CSCI 5523 |

| 76 | CSCI 5523 |

| 79 | CSCI 5523 |

| 81 | CSCI 5523 |

| 82 | CSCI 5523 |

| 85 | CSCI 5523 |

| 87 | CSCI 5523 |

| 88 | CSCI 5523 |

| 89 | CSCI 5523 |

| 90 | CSCI 5523 |

| 95 | CSCI 5523 |

| 1 | CSCI 5707 |

| 3 | CSCI 5707 |

| 4 | CSCI 5707 |

| 7 | CSCI 5707 |

| 9 | CSCI 5707 |

| 11 | CSCI 5707 |

| 13 | CSCI 5707 |

| 18 | CSCI 5707 |

| 19 | CSCI 5707 |

| 22 | CSCI 5707 |

| 23 | CSCI 5707 |

| 24 | CSCI 5707 |

| 25 | CSCI 5707 |

| 27 | CSCI 5707 |

| 28 | CSCI 5707 |

| 34 | CSCI 5707 |

| 35 | CSCI 5707 |

| 36 | CSCI 5707 |

| 38 | CSCI 5707 |

| 39 | CSCI 5707 |

| 42 | CSCI 5707 |

| 43 | CSCI 5707 |

| 47 | CSCI 5707 |

| 51 | CSCI 5707 |

| 53 | CSCI 5707 |

| 54 | CSCI 5707 |

| 55 | CSCI 5707 |

| 57 | CSCI 5707 |

| 61 | CSCI 5707 |

| 63 | CSCI 5707 |

| 64 | CSCI 5707 |

| 66 | CSCI 5707 |

| 68 | CSCI 5707 |

| 69 | CSCI 5707 |

| 75 | CSCI 5707 |

| 79 | CSCI 5707 |

| 81 | CSCI 5707 |

| 87 | CSCI 5707 |

| 88 | CSCI 5707 |

| 89 | CSCI 5707 |

| 94 | CSCI 5707 |

| 1 | CSCI 8715 |

| 6 | CSCI 8715 |

| 8 | CSCI 8715 |

| 9 | CSCI 8715 |

| 13 | CSCI 8715 |

| 23 | CSCI 8715 |

| 28 | CSCI 8715 |

| 29 | CSCI 8715 |

| 31 | CSCI 8715 |

| 32 | CSCI 8715 |

| 33 | CSCI 8715 |

| 34 | CSCI 8715 |

| 37 | CSCI 8715 |

| 44 | CSCI 8715 |

| 45 | CSCI 8715 |

| 46 | CSCI 8715 |

| 49 | CSCI 8715 |

| 50 | CSCI 8715 |

| 51 | CSCI 8715 |

| 57 | CSCI 8715 |

| 62 | CSCI 8715 |

| 65 | CSCI 8715 |

| 69 | CSCI 8715 |

| 72 | CSCI 8715 |

| 74 | CSCI 8715 |

| 75 | CSCI 8715 |

| 76 | CSCI 8715 |

| 77 | CSCI 8715 |

| 80 | CSCI 8715 |

| 83 | CSCI 8715 |

| 84 | CSCI 8715 |

| 85 | CSCI 8715 |

| 90 | CSCI 8715 |

| 91 | CSCI 8715 |

| 92 | CSCI 8715 |

| 93 | CSCI 8715 |

+------+-----------+

168 rows in set (0.00 sec)

**Task4: Execute SQL Queries**

Query 1:

SELECT S.snum, S.sname

FROM Student S , Enrolled E

WHERE S.snum = E.snum AND E.cname = ‘CSCI 4707’;

+------+-------------+

| snum | sname |

+------+-------------+

| 1 | Nathen |

| 3 | Victor |

| 5 | Kevin Ray |

| 6 | Kyle |

| 7 | Stefan |

| 8 | Riley |

| 12 | Deukyeol |

| 15 | Joseph |

| 16 | Paul |

| 17 | Brent |

| 20 | David |

| 21 | Neha |

| 22 | Heesun |

| 24 | Albert |

| 25 | Jack |

| 26 | Colton |

| 28 | Thomas |

| 30 | Sam |

| 31 | David |

| 35 | Christopher |

| 41 | Chunxi |

| 45 | Dale |

| 48 | Will |

| 50 | Minh |

| 51 | Jacob |

| 53 | Shraddha |

| 56 | Ashok |

| 57 | Thomas |

| 65 | Michael |

| 67 | Efe |

| 68 | Patrick |

| 70 | Harshita |

| 73 | Qikai |

| 75 | Alec |

| 77 | Shakil |

| 78 | Jeremiah |

| 81 | Pamela-Rose |

| 86 | Samuel |

| 87 | Kyle |

| 92 | Muhan |

| 93 | Yameng |

| 94 | Zhen |

+------+-------------+

42 rows in set (0.00 sec)

Query 2:

SELECT \* FROM Student S

WHERE EXISTS

(SELECT \* FROM Student S2 where S2.snum>50 AND S.snum=S2.snum);

+------+-------------+-------+--------+------+

| snum | sname | major | level | age |

+------+-------------+-------+--------+------+

| 51 | Jacob | CS | level4 | 21 |

| 52 | Jacob | CS | level5 | 22 |

| 53 | Shraddha | CS | level6 | 23 |

| 54 | Hieu | CS | level0 | 24 |

| 55 | Kevin | CS | level1 | 25 |

| 56 | Ashok | CS | level2 | 26 |

| 57 | Thomas | CS | level3 | 27 |

| 58 | Lingjun | CS | level4 | 28 |

| 59 | Kanika | CS | null | 29 |

| 60 | Xiaoyi | CS | null | 30 |

| 61 | Van | CS | level0 | 31 |

| 62 | Maxwell | CS | level1 | 32 |

| 63 | Yohanna | CS | level2 | 33 |

| 64 | Nicholas | CS | level3 | 34 |

| 65 | Michael | CS | level4 | 35 |

| 66 | David | Math | null | 36 |

| 67 | Efe | Math | null | 37 |

| 68 | Patrick | Math | null | 16 |

| 69 | Harrison | Math | null | 18 |

| 70 | Harshita | Math | null | 20 |

| 71 | Chirasak | Math | null | 22 |

| 72 | Daniel | Math | null | 24 |

| 73 | Qikai | Math | null | 26 |

| 74 | Zheng | Math | null | 28 |

| 75 | Alec | Math | level0 | 30 |

| 76 | Michael | Math | level1 | 32 |

| 77 | Shakil | Math | level2 | 34 |

| 78 | Jeremiah | Math | level3 | 36 |

| 79 | Nicholas | Math | level4 | 38 |

| 80 | Grayson | Math | null | 17 |

| 81 | Pamela-Rose | Math | null | 19 |

| 82 | Stephen | Math | null | 21 |

| 83 | Louis | Math | null | 23 |

| 84 | Qin | Math | null | 25 |

| 85 | Joel | Math | null | 27 |

| 86 | Samuel | Math | null | 29 |

| 87 | Kyle | Math | null | 31 |

| 88 | Daryl | CS | level0 | 33 |

| 89 | Yuanshun | CS | level1 | 35 |

| 90 | Bowen | CS | level2 | 37 |

| 91 | Chan Kit | CS | level3 | 39 |

| 92 | Muhan | CS | level4 | 41 |

| 93 | Yameng | CS | null | 19 |

| 94 | Zhen | CS | null | 21 |

| 95 | Cody | CS | null | 20 |

+------+-------------+-------+--------+------+

45 rows in set (0.01 sec)

Query 3:

SELECT DISTINCT S.sname

FROM Student S, Class C

WHERE C.name NOT IN

(SELECT C.name

FROM Faculty F, Class C

WHERE F.fname = “Jaideep” AND F.fid = C.fid);

+-------------+

| sname |

+-------------+

| Nathen |

| Magdy |

| Victor |

| Nathaniel |

| Kevin Ray |

| Kyle |

| Stefan |

| Riley |

| Daniel |

| Carlos |

| Yi |

| Deukyeol |

| Chase |

| Patrick |

| Joseph |

| Paul |

| Brent |

| Sudeepto |

| Lingfei |

| David |

| Neha |

| Heesun |

| Jungwoo |

| Albert |

| Jack |

| Colton |

| Mark |

| Thomas |

| Maximillian |

| Sam |

| Ryan |

| Nick |

| Stephen |

| Christopher |

| Andrew |

| Tyler |

| Peiqi |

| Johanna |

| Chunxi |

| Cuong |

| Qiyue |

| Elan |

| Dale |

| Eshitha |

| Will |

| Adam |

| Minh |

| Jacob |

| Shraddha |

| Hieu |

| Kevin |

| Ashok |

| Lingjun |

| Kanika |

| Xiaoyi |

| Van |

| Maxwell |

| Yohanna |

| Nicholas |

| Michael |

| Efe |

| Harrison |

| Harshita |

| Chirasak |

| Qikai |

| Zheng |

| Alec |

| Shakil |

| Jeremiah |

| Grayson |

| Pamela-Rose |

| Louis |

| Qin |

| Joel |

| Samuel |

| Daryl |

| Yuanshun |

| Bowen |

| Chan Kit |

| Muhan |

| Yameng |

| Zhen |

| Cody |

+-------------+

83 rows in set (0.01 sec)

Query 4:

SELECT \* FROM Student LEFT JOIN Enrolled

On (Student.snum = Enrolled.snum)

WHERE Student.snum<50;

+------+-------------+-------+--------+------+------+-----------+

| snum | sname | major | level | age | snum | cname |

+------+-------------+-------+--------+------+------+-----------+

| 1 | Nathen | CS | level0 | 19 | 1 | CSCI 4707 |

| 1 | Nathen | CS | level0 | 19 | 1 | CSCI 5707 |

| 1 | Nathen | CS | level0 | 19 | 1 | CSCI 8715 |

| 2 | Magdy | CS | level1 | 20 | 2 | CSCI 5523 |

| 3 | Victor | CS | level2 | 21 | 3 | CSCI 4707 |

| 3 | Victor | CS | level2 | 21 | 3 | CSCI 5707 |

| 4 | Nathaniel | CS | level3 | 22 | 4 | CSCI 5707 |

| 5 | Kevin Ray | CS | level4 | 23 | 5 | CSCI 4707 |

| 5 | Kevin Ray | CS | level4 | 23 | 5 | CSCI 5523 |

| 6 | Kyle | CS | level5 | 24 | 6 | CSCI 4707 |

| 6 | Kyle | CS | level5 | 24 | 6 | CSCI 8715 |

| 7 | Stefan | CS | level6 | 25 | 7 | CSCI 4707 |

| 7 | Stefan | CS | level6 | 25 | 7 | CSCI 5523 |

| 7 | Stefan | CS | level6 | 25 | 7 | CSCI 5707 |

| 8 | Riley | CS | level0 | 26 | 8 | CSCI 4707 |

| 8 | Riley | CS | level0 | 26 | 8 | CSCI 8715 |

| 9 | Daniel | CS | level1 | 27 | 9 | CSCI 5523 |

| 9 | Daniel | CS | level1 | 27 | 9 | CSCI 5707 |

| 9 | Daniel | CS | level1 | 27 | 9 | CSCI 8715 |

| 10 | Carlos | MATH | level2 | 18 | 10 | CSCI 5523 |

| 11 | Yi | CS | level3 | 20 | 11 | CSCI 5523 |

| 11 | Yi | CS | level3 | 20 | 11 | CSCI 5707 |

| 12 | Deukyeol | CS | level4 | 22 | 12 | CSCI 4707 |

| 12 | Deukyeol | CS | level4 | 22 | 12 | CSCI 5523 |

| 13 | Chase | CS | level5 | 24 | 13 | CSCI 5523 |

| 13 | Chase | CS | level5 | 24 | 13 | CSCI 5707 |

| 13 | Chase | CS | level5 | 24 | 13 | CSCI 8715 |

| 14 | Patrick | CS | level6 | 26 | 14 | CSCI 5523 |

| 15 | Joseph | CS | level0 | 28 | 15 | CSCI 4707 |

| 15 | Joseph | CS | level0 | 28 | 15 | CSCI 5523 |

| 16 | Paul | CS | level1 | 30 | 16 | CSCI 4707 |

| 17 | Brent | MATH | level2 | 16 | 17 | CSCI 4707 |

| 17 | Brent | MATH | level2 | 16 | 17 | CSCI 5523 |

| 18 | Sudeepto | MATH | level3 | 19 | 18 | CSCI 5707 |

| 19 | Lingfei | MATH | level4 | 22 | 19 | CSCI 5707 |

| 20 | David | CS | level5 | 25 | 20 | CSCI 4707 |

| 21 | Neha | MATH | level6 | 28 | 21 | CSCI 4707 |

| 22 | Heesun | CS | level0 | 31 | 22 | CSCI 4707 |

| 22 | Heesun | CS | level0 | 31 | 22 | CSCI 5707 |

| 23 | Jungwoo | CS | level1 | 34 | 23 | CSCI 5523 |

| 23 | Jungwoo | CS | level1 | 34 | 23 | CSCI 5707 |

| 23 | Jungwoo | CS | level1 | 34 | 23 | CSCI 8715 |

| 24 | Albert | CS | level2 | 37 | 24 | CSCI 4707 |

| 24 | Albert | CS | level2 | 37 | 24 | CSCI 5523 |

| 24 | Albert | CS | level2 | 37 | 24 | CSCI 5707 |

| 25 | Jack | MATH | level3 | 40 | 25 | CSCI 4707 |

| 25 | Jack | MATH | level3 | 40 | 25 | CSCI 5523 |

| 25 | Jack | MATH | level3 | 40 | 25 | CSCI 5707 |

| 26 | Colton | CS | level4 | 17 | 26 | CSCI 4707 |

| 27 | Mark | CS | level5 | 18 | 27 | CSCI 5707 |

| 28 | Thomas | CS | level6 | 19 | 28 | CSCI 4707 |

| 28 | Thomas | CS | level6 | 19 | 28 | CSCI 5707 |

| 28 | Thomas | CS | level6 | 19 | 28 | CSCI 8715 |

| 29 | Maximillian | MATH | level4 | 20 | 29 | CSCI 5523 |

| 29 | Maximillian | MATH | level4 | 20 | 29 | CSCI 8715 |

| 30 | Sam | CS | level5 | 21 | 30 | CSCI 4707 |

| 30 | Sam | CS | level5 | 21 | 30 | CSCI 5523 |

| 31 | David | CS | level6 | 22 | 31 | CSCI 4707 |

| 31 | David | CS | level6 | 22 | 31 | CSCI 8715 |

| 32 | Ryan | CS | level4 | 23 | 32 | CSCI 8715 |

| 33 | Nick | CS | level5 | 24 | 33 | CSCI 8715 |

| 34 | Stephen | MATH | level6 | 25 | 34 | CSCI 5523 |

| 34 | Stephen | MATH | level6 | 25 | 34 | CSCI 5707 |

| 34 | Stephen | MATH | level6 | 25 | 34 | CSCI 8715 |

| 35 | Christopher | MATH | level4 | 26 | 35 | CSCI 4707 |

| 35 | Christopher | MATH | level4 | 26 | 35 | CSCI 5707 |

| 36 | Andrew | MATH | level5 | 27 | 36 | CSCI 5523 |

| 36 | Andrew | MATH | level5 | 27 | 36 | CSCI 5707 |

| 37 | Daniel | MATH | level6 | 28 | 37 | CSCI 8715 |

| 38 | Tyler | MATH | level4 | 19 | 38 | CSCI 5707 |

| 39 | Peiqi | CS | level5 | 21 | 39 | CSCI 5523 |

| 39 | Peiqi | CS | level5 | 21 | 39 | CSCI 5707 |

| 40 | Johanna | MATH | level6 | 23 | 40 | CSCI 5523 |

| 41 | Chunxi | MATH | level4 | 25 | 41 | CSCI 4707 |

| 41 | Chunxi | MATH | level4 | 25 | 41 | CSCI 5523 |

| 42 | Cuong | CS | level5 | 27 | 42 | CSCI 5523 |

| 42 | Cuong | CS | level5 | 27 | 42 | CSCI 5707 |

| 43 | Qiyue | CS | level6 | 29 | 43 | CSCI 5707 |

| 44 | Elan | MATH | null | 31 | 44 | CSCI 8715 |

| 45 | Dale | CS | null | 33 | 45 | CSCI 4707 |

| 45 | Dale | CS | null | 33 | 45 | CSCI 5523 |

| 45 | Dale | CS | null | 33 | 45 | CSCI 8715 |

| 46 | Andrew | MATH | null | 35 | 46 | CSCI 8715 |

| 47 | Eshitha | MATH | null | 17 | 47 | CSCI 5523 |

| 47 | Eshitha | MATH | null | 17 | 47 | CSCI 5707 |

| 48 | Will | CS | level4 | 18 | 48 | CSCI 4707 |

| 48 | Will | CS | level4 | 18 | 48 | CSCI 5523 |

| 49 | Adam | CS | level5 | 19 | 49 | CSCI 8715 |

+------+-------------+-------+--------+------+------+-----------+

88 rows in set (0.00 sec)

Query 5:

SELECT COUNT(S.snum), E.cname

FROM Student S, Enrolled E

WHERE S.snum=E.snum

GROUP BY E.cname;

+---------------+-----------+

| COUNT(S.snum) | cname |

+---------------+-----------+

| 42 | CSCI 4707 |

| 49 | CSCI 5523 |

| 41 | CSCI 5707 |

| 36 | CSCI 8715 |

+---------------+-----------+

4 rows in set (0.00 sec)