**View Creation for Use Cases**

1. How many total courses are available for Information Systems Program in Northeastern University?

CREATE VIEW InformationSystems\_Total\_Courses AS

SELECT a.program\_name,

COUNT(a.course\_name), b.program\_url

FROM neu\_course\_catalog a

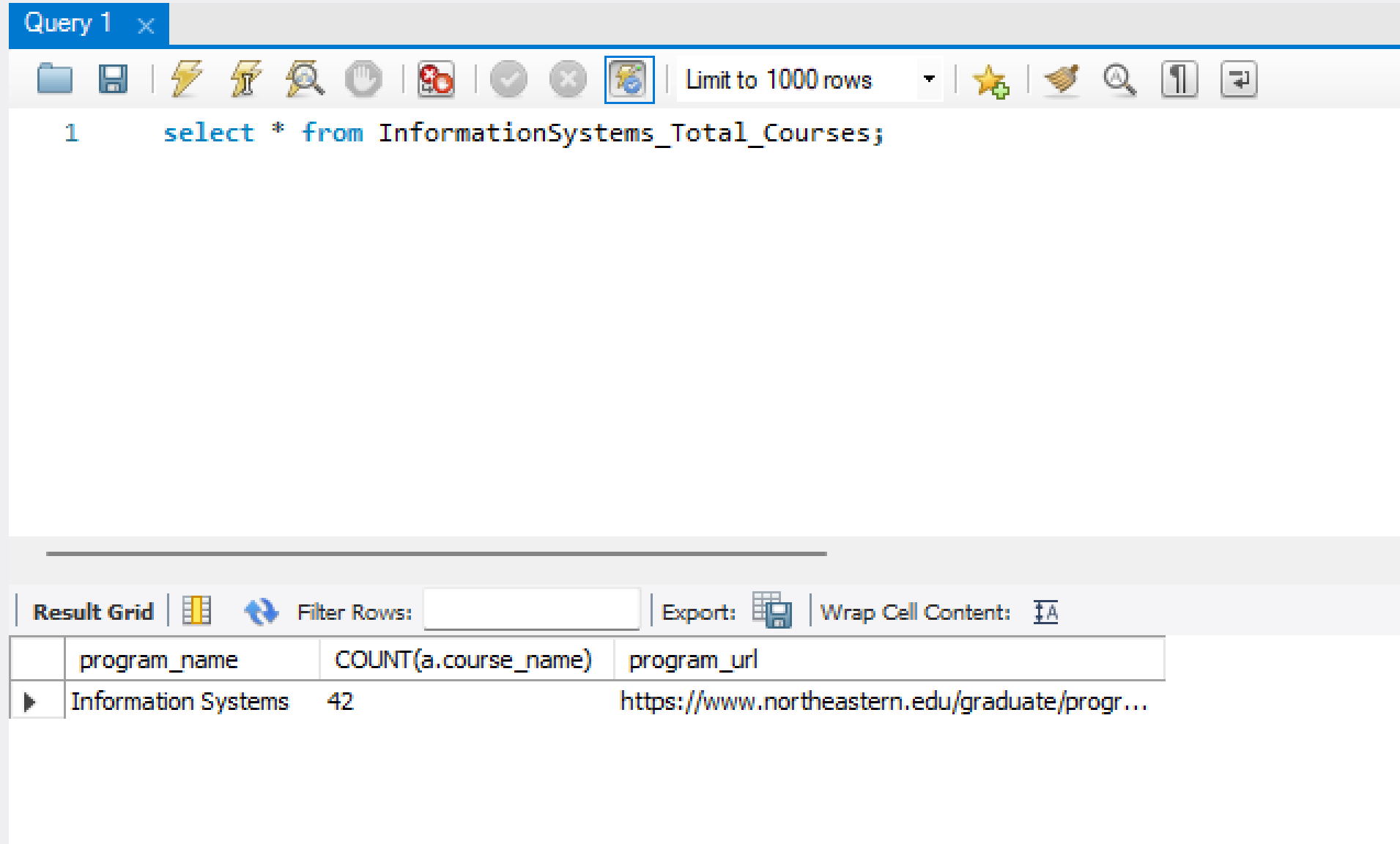
LEFT OUTER JOIN

NEU\_Program b

ON a.program\_name = b.program\_name

WHERE b.program\_name = 'Information Systems'

GROUP BY a.program\_name;



1. Which courses do we need to take to do specialization in User Experience Concentration?

CREATE VIEW User\_Experience\_Specialization\_Courses AS

SELECT a.specialization\_name,b.course\_id,c.course\_name

FROM

neu\_specialization a

LEFT JOIN neu\_course\_specialization b

ON a.specialization\_id = b.specialization\_id

RIGHT JOIN neu\_course\_catalog c

ON b.course\_id = c.course\_id

WHERE a.specialization\_name = 'User Experience Concentration';

Graphical user interface, text, application, email

Description automatically generated

1. List top rated professors at NEU whose rating is above 4. Also mention the courses and its description taught by the professor.

CREATE VIEW NEU\_Top\_Rated\_Professors AS

SELECT a.faculty\_name,a.faculty\_rating,b.course\_id,c.course\_description

FROM neu\_facultys a

JOIN neu\_course\_faculty b

ON a.faculty\_name = b.faculty\_name

JOIN neu\_course\_catalog c

ON b.course\_id = c.course\_id

WHERE a.faculty\_rating >= 4;

Graphical user interface, text, application

Description automatically generated

1. What are the core course requirements for Information Systems, Software Engineering Systems and Data Analytics?

CREATE VIEW Programs\_Core\_Course\_requirement AS

SELECT a.program\_name, GROUP\_CONCAT(a.course\_id SEPARATOR '|'),

COUNT(a.course\_id), b.program\_url

FROM Course\_Core\_requirement a

LEFT JOIN NEU\_Program b

ON a.program\_name = b.program\_name

GROUP BY a.program\_name;

Graphical user interface, text, application

Description automatically generated

1. List courses available for Data Analytics Engineering along with its course\_outcome.

CREATE VIEW Data\_Analytics\_course\_outcome AS

SELECT

program\_name, course\_id,course\_name, course\_description

FROM

NEU\_Course\_Catalog

WHERE program\_name = 'Data Analytics Engineering';

Graphical user interface, text, application, email

Description automatically generated

### What is the average overall rating given by students to a professor for a given course?

Create VIEW Professor\_Avg\_rating AS

SELECT faculty\_name, round (AVG(faculty\_rating),1) as Average\_rating

FROM neu\_Facultys

GROUP BY faculty\_name;

Table

Description automatically generated with medium confidence

1. Which courses students need to take to do specialization in Big Data Systems concentration and which resources are available for them?

CREATE VIEW Big\_data\_Course\_Resource AS

SELECT a.specialization\_name, b.course\_id,c.course\_name,d.software\_name,e.online\_platform

FROM neu\_specialization a

LEFT JOIN neu\_course\_specialization b

ON a.specialization\_id = b.specialization\_id

LEFT JOIN neu\_course\_catalog c

ON b.course\_id = c.course\_id

LEFT JOIN neu\_course\_resource d

ON c.course\_id = d.course\_id

LEFT JOIN neu\_resource\_materials e

ON d.software\_name = e.software\_name

WHERE a.specialization\_name like '%Big Data%';

Graphical user interface, text, application, email

Description automatically generated

1. Which job positions are available for students in Data Analytics Engineering and list the details related to those positions?

CREATE VIEW Data\_Analytics\_Job\_Positions AS

SELECT b.program\_name, a.job\_id,a.title,a.company\_name,a.description,a.location

FROM program\_jobs b

LEFT JOIN job\_info a

ON a.job\_id = b.job\_id

WHERE b.program\_name LIKE '%Data%';

Graphical user interface, text, application, email

Description automatically generated

1. Which professors teach courses related to User Experience and list the ratings given by students for the course?

CREATE VIEW User\_Experience\_Professors AS

SELECT a.specialization\_name, b.course\_id,c.program\_name, d.faculty\_name,e.faculty\_rating

FROM neu\_specialization a

LEFT JOIN neu\_course\_specialization b

ON a.specialization\_id = b.specialization\_id

LEFT JOIN neu\_course\_catalog c

ON b.course\_id = c.course\_id

LEFT JOIN neu\_course\_faculty d

ON d.course\_id = c.course\_id

LEFT JOIN neu\_facultys e

ON e.faculty\_name = d.faculty\_name

WHERE a.specialization\_name like '%User%';

Graphical user interface, text, email

Description automatically generated

1. Find the average course rating for Information Systems Program

CREATE VIEW Information\_System\_Avg\_Course\_rating AS

SELECT a.program\_name, AVG(b.course\_rating)

FROM neu\_course\_catalog a

RIGHT JOIN neu\_course\_resource b

ON a.course\_id = b.course\_id

WHERE a.program\_name ='Information Systems';

Graphical user interface, text

Description automatically generated

1. List courses with lowest rating.

CREATE VIEW Lowest\_Rating\_Courses As

SELECT a.course\_id, a.course\_name,a.course\_description,b.course\_rating

FROM neu\_course\_catalog a

LEFT JOIN neu\_course\_resource b

ON a.course\_id = b.course\_id

WHERE b.course\_rating = (select min(course\_rating) from neu\_course\_resource);

Graphical user interface, text, application

Description automatically generated

1. . Find the professors who taught DAMG 7350, INFO 5100, DAMG 6105, DAMG 7275 courses.

CREATE VIEW Professor\_DAMG7350\_INFO5100\_DAMG6105\_DAMG7275 AS

select a.faculty\_name, b.course\_id

from neu\_facultys a

JOIN NEU\_Course\_faculty b

ON a.faculty\_name = b.faculty\_name

where b.course\_id IN ('DAMG 7350', 'INFO 5100','DAMG 6105' ,'DAMG 7275');

Graphical user interface, text, application, email

Description automatically generated

1. Which resources are available for students who have chosen Information Systems

program?

CREATE VIEW Information\_Systems\_Resource\_Details AS

SELECT a.program\_name,a.course\_id,b.software\_name,

c.software\_download\_url,c.online\_platform

FROM neu\_course\_catalog a

JOIN neu\_course\_resource b

ON a.course\_id = b.course\_id

JOIN neu\_resource\_materials c

ON b.software\_name = c.software\_name

WHERE a.program\_name = 'Information Systems';

Graphical user interface, text, application

Description automatically generated