**Ice task 4**

--QUESTION 1

--DATABASE

CREATE DATABASE DVD\_RENTALS;

--TABLES

CREATE TABLE DVDS(DVD\_CODE VARCHAR(5) NOT NULL PRIMARY KEY, DVD\_TITLE VARCHAR(40) NOT NULL,

DIRECTOR VARCHAR(40) NOT NULL, RELEASE\_DATE SMALLDATETIME NOT NULL, RUNNING\_TIME SMALLINT NOT NULL);

CREATE TABLE STORES(STORE\_CODE VARCHAR(5) NOT NULL PRIMARY KEY, STORE\_NAME VARCHAR(20) NOT NULL, ADDRESS VARCHAR(50) NOT NULL,

CITY VARCHAR(20) NOT NULL);

CREATE TABLE AVAILABILITY(DVD\_CODE VARCHAR(5) NOT NULL, STORE\_CODE VARCHAR(5) NOT NULL, AVAILABLE\_STOCK SMALLINT NOT NULL

PRIMARY KEY(DVD\_CODE, STORE\_CODE),

FOREIGN KEY (DVD\_CODE) REFERENCES DVDS(DVD\_CODE),

FOREIGN KEY (STORE\_CODE) REFERENCES STORES(STORE\_CODE));

--INSERT INTO

INSERT INTO DVDS

VALUES ('D001', 'joker', 'Todd Phillips', '2019-08-15', 122),

('D002', 'Booksmart', 'Olivia Wilde', '2019-03-10', 105),

('D003', 'Gemini MAn', 'Ang Lee', '2019-10-01', 117),

('D004', 'Atlantics', 'Mati Diop', '2019-05-16', 124),

('D005', 'The Farewell', 'Lulu Wang', '2019-01-25', 100);

INSERT INTO STORES

VALUES('ST001', 'DVD Express', '167 Pert Road', 'Johannesburg'),

('ST002', 'DVD Rentals', '5 Second Avenue', 'Port ELizabeth'),

('ST003', 'Movies R Us', '33 Bertha Mkhize Street', 'Durban'),

('ST004', 'Pro Visions DVDs', '27 Bram Fischer Road', 'Durban'),

('ST005', 'Protea DVD Shop', '210 Du Toit Street', 'Pretoria');

INSERT INTO AVAILABILITY

VALUES('D002', 'ST001', 13),

('D002', 'ST004', 9),

('D003', 'ST005', 8),

('D004', 'ST003', 5),

('D004', 'ST001', 9);

--ALTER

ALTER TABLE AVAILABILITY

ADD STOCK\_ORDERED SMALLINT;

--UPDATE

UPDATE AVAILABILITY

SET STOCK\_ORDERED = 3

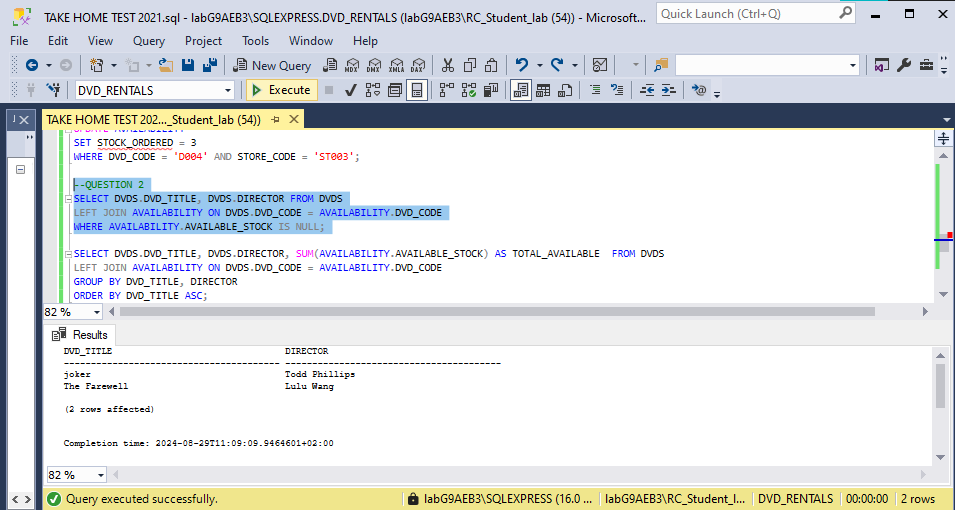
WHERE DVD\_CODE = 'D004' AND STORE\_CODE = 'ST003';

--QUESTION 2

SELECT DVDS.DVD\_TITLE, DVDS.DIRECTOR FROM DVDS

LEFT JOIN AVAILABILITY ON DVDS.DVD\_CODE = AVAILABILITY.DVD\_CODE

WHERE AVAILABILITY.AVAILABLE\_STOCK IS NULL;

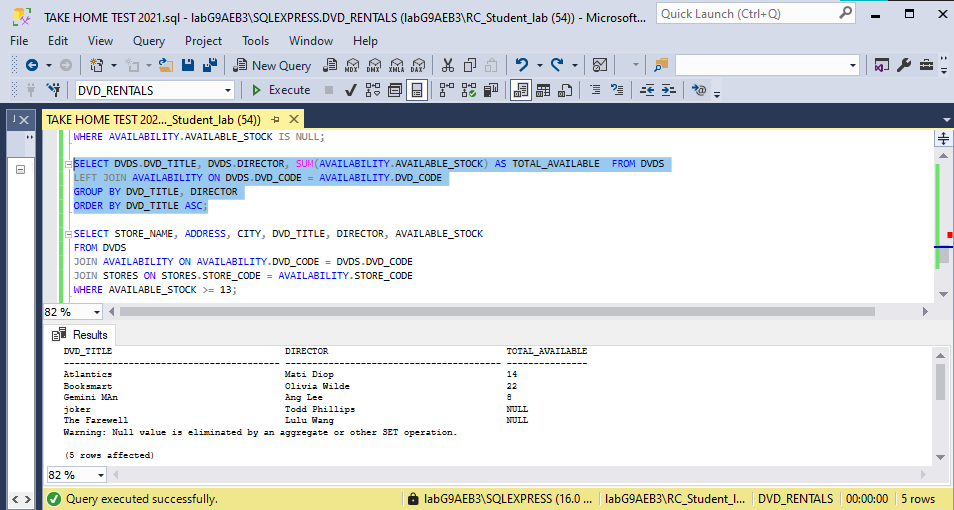


SELECT DVDS.DVD\_TITLE, DVDS.DIRECTOR, SUM(AVAILABILITY.AVAILABLE\_STOCK) AS TOTAL\_AVAILABLE FROM DVDS

LEFT JOIN AVAILABILITY ON DVDS.DVD\_CODE = AVAILABILITY.DVD\_CODE

GROUP BY DVD\_TITLE, DIRECTOR

ORDER BY DVD\_TITLE ASC;



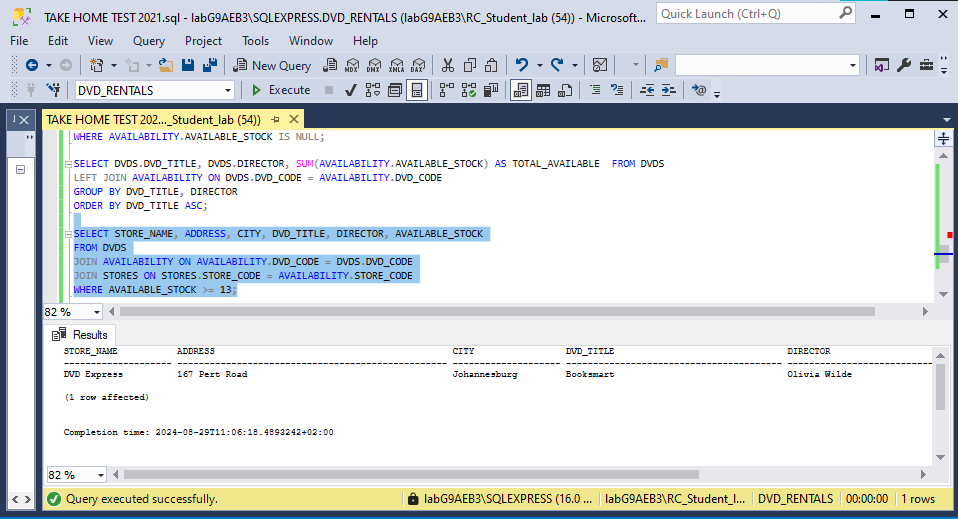
SELECT STORE\_NAME, ADDRESS, CITY, DVD\_TITLE, DIRECTOR, AVAILABLE\_STOCK

FROM DVDS

JOIN AVAILABILITY ON AVAILABILITY.DVD\_CODE = DVDS.DVD\_CODE

JOIN STORES ON STORES.STORE\_CODE = AVAILABILITY.STORE\_CODE

WHERE AVAILABLE\_STOCK >= 13;



**Reference**

Gido, J. Clements, P.J. Baker, R. 2022. Successful Project Management in South Africa. Second edition. Boston: Congage Learning.