MINI PROJECT - 1

NAME: Nandhini V DATE: 14-07-2025

Table Creation:

```
Query:
```

```
Create table CUSTOMER_MASTER
(

CUSTOMER_ID Varchar(10),

CUSTOMER_NAME Varchar(30) NOT NULL,

CONTACT_NO Varchar(10),

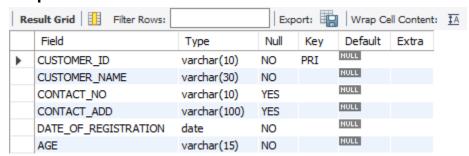
CONTACT_ADD Varchar(100),

DATE_OF_REGISTRATION Date NOT NULL,

AGE Varchar(15) NOT NULL,

Constraint MT_cts1 PRIMARY KEY(CUSTOMER_ID)
);
desc CUSTOMER MASTER;
```

Output:



```
Create table MOVIES_MASTER
(

MOVIE_ID Varchar(10),
MOVIE_NAME Varchar(80) NOT NULL,
RELEASE_DATE Varchar(30) NOT NULL,
LANGUAGE Varchar(30),
RATING int,
DURATION_In_Minutes VARCHAR(10) NOT NULL,
MOVIE TYPE Varchar(100),
```

```
MOVIE_CATEGORY VARCHAR(40) NOT NULL,
DIRECTOR VARCHAR(60) NOT NULL,
LEAD_Actor_name1 Varchar(50) NOT NULL,
LEAD_Actor_name2 VARCHAR(60) NOT NULL,
RENTAL_COST INT,
Constraint MT_cts4 PRIMARY KEY(MOVIE_ID)
);
desc MOVIES_MASTER;
```

Re	sult Grid III Filter Rows	51		Export:	Wrap	Cell Conte	ent: I
	Field	Туре	Null	Key	Default	Extra	
•	MOVIE_ID	varchar(10)	NO	PRI	NULL		
	MOVIE_NAME	varchar(80)	NO		NULL		
	RELEASE_DATE	varchar(30)	NO		HULL		
	LANGUAGE	varchar(30)	YES		NULL		
	RATING	int	YES		HULL		
	DURATION_In_Minutes	varchar(10)	NO		NULL		
	MOVIE_TYPE	varchar(100)	YES		NULL		
	MOVIE_CATEGORY	varchar(40)	NO		NULL		
	DIRECTOR	varchar(60)	NO		NULL		
	LEAD_Actor_name1	varchar(50)	NO		NULL		
	LEAD_Actor_name2	varchar(60)	NO		NULL		
	RENTAL_COST	int	YES		NULL		

```
Create table CUSTOMER_ISSUE_DETAILS

(

ISSUE_ID Varchar(10) NOT NULL,

CUSTOMER_ID Varchar(10) NOT NULL,

MOVIE_ID VARCHAR(10),

ISSUE_DATE Date NOT NULL,

RETURN_DATE Date NOT NULL,

ACTUAL_DATE_RETURN Date NOT NULL,

Constraint MT_cts5 PRIMARY KEY(ISSUE_ID),

Constraint MT_Mem FOREIGN KEY(CUSTOMER_ID) References

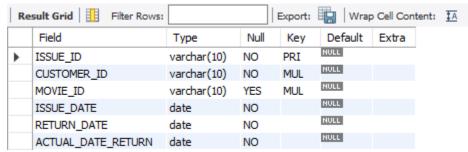
CUSTOMER_MASTER(CUSTOMER_ID),

Constraint MT_Mem1 FOREIGN KEY(MOVIE_ID) References

MOVIES_MASTER(MOVIE_ID)

);

desc CUSTOMER_ISSUE_DETAILS;
```



Query:

```
Create table LIBRARY_CARD_MASTER
(

CARD_ID Varchar(10),

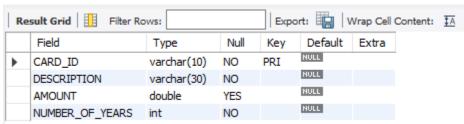
DESCRIPTION Varchar(30) NOT NULL,

AMOUNT Double,

NUMBER_OF_YEARS int NOT NULL,

Constraint MT_cts2 PRIMARY KEY(CARD_ID)
);
desc LIBRARY_CARD_MASTER;
```

Output:



```
Create table CUSTOMER_CARD_DETAILS

(

CUSTOMER_ID Varchar(10),

CARD_ID VARCHAR(10),

ISSUE_DATE DATE NOT NULL,

Constraint MT_cts3 PRIMARY KEY(CUSTOMER_ID),

Constraint MT_CTS41 FOREIGN KEY(CUSTOMER_ID) References

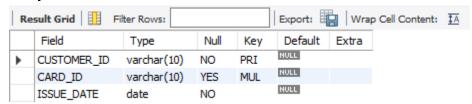
CUSTOMER_MASTER(CUSTOMER_ID),

Constraint MT_CTS42 FOREIGN KEY(CARD_ID) References

LIBRARY_CARD_MASTER(CARD_ID)

);

desc CUSTOMER_CARD_DETAILS;
```



Value Insertion:

Query:

insert into customer master values ('C00001',' NITIN ','9830354218',' A/122, KALKAJI',' 2012-10-15', 22), ('C00002',' ','8923156781', AGNESH '9/1,ANDHERI EAST',' 2012-11-01', 35), ('C00003',' T RAMACHANDRAN', '9831289761', '9/1, NANDABAKKAM', ' 2012-11-02', 25), ('C00004' ,'RAJIB MITRA' ,'9830356781',' H/56, BLOCK1, JADAVPUR', ' 2012-11-21', 45), NULL,' 2/2 PHASE II JAWAHAR NAGAR' ('C00005',' SHIV PRASAD', ,'2012-12-25', 30), ('C00006', 'AJAY GHOSH' ,'8763478901' ,'N/2,GANDHI COLONY DUM DUM', '2012-12-30' ,20), ('C00007', 'GEETHA REDDY' ,'8976167890',' AH 1/1 T NAGAR' ,'2012-12-31' ,30),('C00008', 'RIA NATRAJAN' ,'9856723190' ,'A/B GANDHI COLONY' ,'2013-01-01' ,45), ('C00009', 'RAJAN PILLAI' ,NULL,' A 1/66 KODAMBAKKAM ','2013-01-02', 40), 'RAGHAV SINGH', '9675167890', 'A/6 NEHRU JAWAHAR NAGAR', ('C00010', '2013-03-02' ,50), ('C00011', 'RAJ SEKHANRAN','8423178906' ,'A/1 MAYUR KUNJ' ,'2013-03-15' ,25);

select * from customer_master;

Re	sult Grid 🔢 🕠	Filter Rows:	Ed	it: 👍 🖶 Export/Import:	Wrap Cell Conten	t: <u>‡A</u>
	CUSTOMER_ID	CUSTOMER_NAME	CONTACT_NO	CONTACT_ADD	DATE_OF_REGISTRATION	AGE
•	C00001	NITIN	9830354218	A/122, KALKAJI	2012-10-15	22
	C00002	AGNESH	8923156781	9/1,ANDHERI EAST	2012-11-01	35
	C00003	T RAMACHANDRAN	9831289761	9/1,NANDABAKKAM	2012-11-02	25
	C00004	RAJIB MITRA	9830356781	H/56, BLOCK1, JADAVPUR	2012-11-21	45
	C00005	SHIV PRASAD	NULL	2/2 PHASE II JAWAHAR NAGAR	2012-12-25	30
	C00006	AJAY GHOSH	8763478901	N/2,GANDHI COLONY DUM DUM	2012-12-30	20
	C00007	GEETHA REDDY	8976167890	AH 1/1 T NAGAR	2012-12-31	30
	C00008	RIA NATRAJAN	9856723190	A/B GANDHI COLONY	2013-01-01	45
	C00009	RAJAN PILLAI	NULL	A 1/66 KODAMBAKKAM	2013-01-02	40
	C00010	RAGHAV SINGH	9675167890	A/6 NEHRU JAWAHAR NAGAR	2013-03-02	50
	C00011	RAJ SEKHANRAN	8423178906	A/1 MAYUR KUNJ	2013-03-15	25
	HULL	NULL	NULL	NULL	HULL	NULL

Query:

COMEDY',

```
insert into movies_master values
('M00001',' DIE HARD',' 1998 ','ENGLISH ',4 ,120 ,'UNIVERSAL','
ACTION',
'JOHN MCTIERNAN', 'BRUCE WILLIS', 'BONNIE BEDELIA', 100),
('M00002','
           THE DARK KNIGHT','2008',' ENGLISH', 5 ,90 ,'PARENTAL
GUIDENCE',' ACTION','
CHRISTOPHER NOLAN'
'CHRISTIAN BALE', 'HEALTH LEDGER', 100),
('M00003',' THE MATRIX', 1999,' ENGLISH',
                                        4, 120,' UNIVERSAL',' ACTION','
ANDY LARRY','
                 KEANU REEVES
'CARRIE-ANEE MOSS',
                      100),
('M00004','
           INCEPTION', 2010 ,'ENGLISH ',5
                                             ,120,' PARENTAL GUIDENCE
','ACTION',
'CHRISTOPHER NOLAN', 'LEONARDO DICAPRIO','
                                              JOSEPH GORDAN', 100),
('M00005','OFFICE SPACE', 1999 ,'ENGLISH', 4, 95 ,'UNIVERSAL ','COMEDY
'MIKE JUDGE','
                 RON LIVINGSTON', JENNIFER ANISTON',100),
('M00006
           ','YOUNG FRANKENSTEIN','1974',' ENGLISH', 4 ,130,' UNIVERSAL','
```

'MEL BROOKS',' GENE WILDER',' TERI GARR', 100),

```
('M00007','
            SHAUN OF THE DEAD',
                                    2004 ,'ENGLISH', 4
                                                            .95.'
                                                                  UNIVERSAL',
'COMEDY',
'EDGAR WRIGHT',' SIMON PEGG','KATE ASHFIELD'
                                               ,100),
('M00008','
            CASABLANCA',
                              1942,' ENGLISH',
                                                3,
                                                      120
                                                            ,'UNIVERSAL','
ROMANCE','
           MICHAEL
CURTIZ','
           HUMPREY BOGART','
                                    INGRID BERGMAN', 1000),
           ','THE NOTEBOOK', 2004 ,'ENGLISH', 3
('M00009
                                                      .120
                                                            ,'PARENTAL
GUIDENCE',' ROMANCE
'NICK CASSAVETES','
                        RYAN GOSLING','
                                          RACHEL MCADAMS',
                                                                  100),
            ','GONE WITH THE WIND ',1939 ,'ENGLISH', 3
('M00010
                                                            ,120,' PARENTAL
           ','ROMANCE',
GUIDENCE
'VICTOR FLEMMING',
                        'CLARK GABLE','
                                          VIVIEN LEIGH
                                                            ',100),
('M00011
            ','TITANIC',
                        1997 ,'ENGLISH
                                          ',3
                                                ,120 ,'PARENTAL GUIDENCE','
ROMANCE'
,'JAMES CAMERON','
                       LEONARDO DICAPRIO
                                                ','KATE WINSLET',
                                                                  100);
```

select * from movies_master;

Output:

Re	sult Grid	Filter Rows:	Ed	it: 🚄 🖶	Expor	t/Import: 🙀 🦝 Wra	p Cell Content: IA					
	MOVIE_ID	MOVIE_NAME	RELEASE_DATE	LANGUAGE	RATING	DURATION_In_Minutes	MOVIE_TYPE	MOVIE_CATEGORY	DIRECTOR	LEAD_Actor_name1	LEAD_Actor_name2	RENTAL_COST
þ.	M00001	DIE HARD	1998	ENGLISH	4	120	UNIVERSAL	ACTION	JOHN MCTIERNAN	BRUCE WILLIS	BONNIE BEDELIA	100
	M00002	THE DARK KNIGHT	2008	ENGLISH	5	90	PARENTAL GUIDENCE	ACTION	CHRISTOPHER NOLAN	CHRISTIAN BALE	HEALTH LEDGER	100
	M00003	THE MATRIX	1999	ENGLISH	4	120	UNIVERSAL	ACTION	ANDY LARRY	KEANU REEVES	CARRIE-ANEE MOSS	100
	M00004	INCEPTION	2010	ENGLISH	5	120	PARENTAL GUIDENCE	ACTION	CHRISTOPHER NOLAN	LEONARDO DICAPRIO	JOSEPH GORDAN	100
	M00005	OFFICE SPACE	1999	ENGLISH	4	95	UNIVERSAL	COMEDY	MIKE JUDGE	RON LIVINGSTON	JENNIFER ANISTON	100
	M00006	YOUNG FRANKENSTEIN	1974	ENGLISH	4	130	UNIVERSAL	COMEDY	MEL BROOKS	GENE WILDER	TERI GARR	100
	M00007	SHAUN OF THE DEAD	2004	ENGLISH	4	95	UNIVERSAL	COMEDY	EDGAR WRIGHT	SIMON PEGG	KATE ASHFIELD	100
	M00008	CASABLANCA	1942	ENGLISH	3	120	UNIVERSAL	ROMANCE	MICHAEL CURTIZ	HUMPREY BOGART	INGRID BERGMAN	1000
	M00009	THE NOTEBOOK	2004	ENGLISH	3	120	PARENTAL GUIDENCE	ROMANCE	NICK CASSAVETES	RYAN GOSLING	RACHEL MCADAMS	100
	M00010	GONE WITH THE WIND	1939	ENGLISH	3	120	PARENTAL GUIDENCE	ROMANCE	VICTOR FLEMMING	CLARK GABLE	VIVIEN LEIGH	100
	M00011	TITANIC	1997	ENGLISH	3	120	PARENTAL GUIDENCE	ROMANCE	JAMES CAMERON	LEONARDO DICAPRIO	KATE WINSLET	100
	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

```
insert into customer_issue_details values  \label{lem:customer_issue_details} (100001', 100001', 1000001', 12012-10-15', 12012-10-17', 12012-10-17'), \\ (100002', 100002', 1000002', 1000002', 12012-11-02', 12012-12-04', 12012-12-03'), \\ (100003', 1000002', 1000003', 1000003', 12012-11-02', 12012-11-04', 12012-11-10'), \\ (100005', 100003', 1000003', 1000004', 12012-11-10', 12012-11-12', 12012-11-12'), \\ (100006', 1000003', 1000005', 12012-11-12', 12012-11-14', 12012-11-14'), \\ (100007', 1000004', 1000006', 12012-11-21', 12012-11-23', 12012-11-24'), \\ (100008', 1000010', 1000008', 12013-03-02', 12013-03-04', 12013-03-05'), \\ (100009', 1000011', 1000010', 12013-03-16', 12013-03-18', 12013-03-18'), \\ (100009', 1000011', 1000010', 12013-03-16', 12013-03-18', 12013-03-18'), \\ (100009', 1000011', 1000010', 12013-03-16', 12013-03-18', 12013-03-18'), \\ (100009', 1000011', 1000010', 12013-03-16', 12013-03-18', 12013-03-18'), \\ (100009', 1000011', 1000010', 12013-03-16', 12013-03-18', 12013-03-18'), \\ (1000011', 1000010', 1000010', 12013-03-16', 12013-03-18', 12013-03-18'), \\ (10000111', 1000010', 1000010', 12013-03-16', 12013-03-18', 12013-03-18'), \\ (10000111', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 1000010', 10000010', 1000000', 1000000', 1000000', 100000', 100000', 10000
```

```
('I00010','C00004' ,'M00007','2012-11-25','2012-11-27','2012-11-27'), ('I00011','C00004' ,'M00007','2012-11-28','2012-11-30','2012-11-30'), ('I00012','C00001','M00001','2013-11-28','2013-11-30','2013-11-30'), ('I00013','C00003','M00001','2012-12-03','2012-12-05','2012-12-05'), ('I00014','C00003','M00010 ','2013-01-02','2013-01-04','2013-01-05'), ('I00015','C00003','M00011 ','2013-02-03','2013-02-05','2013-02-06'), ('I00016','C00003','M00011 ','2013-03-05','2013-03-07','2013-03-07'), ('I00017','C00003','M00008','2013-05-13','2013-04-17','2013-04-17'), ('I00018','C00002','M00010 ','2015-01-15','2015-01-17','2015-01-17'), ('I00019','C00004','M00001','2012-11-15 ','2012-11-17','2012-11-17');
```

select * from customer issue details;

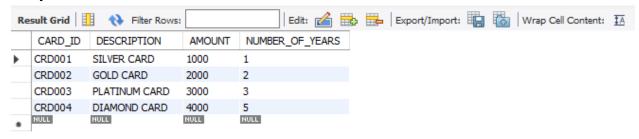
Output:

	tput.							
Re	sult Grid	Filter Row	/s:	Edit:	🚄 🖶 🖶	Export/Import:	Wrap Cell Content:	<u>‡A</u>
	ISSUE_ID	CUSTOMER_ID	MOVIE_ID	ISSUE_DATE	RETURN_DATE	ACTUAL_DATE_RETURN		
•	I00001	C00001	M00001	2012-10-15	2012-10-17	2012-10-17		
	100002	C00002	M00002	2012-11-02	2012-11-04	2012-11-05		
	100003	C00002	M00002	2012-12-02	2012-12-04	2012-12-03		
	100004	C00003	M00003	2012-11-02	2012-11-04	2012-11-10		
	100005	C00003	M00004	2012-11-10	2012-11-12	2012-11-12		
	100006	C00003	M00005	2012-11-12	2012-11-14	2012-11-14		
	100007	C00004	M00006	2012-11-21	2012-11-23	2012-11-24		
	100008	C00010	M00008	2013-03-02	2013-03-04	2013-03-05		
	100009	C00011	M00010	2013-03-16	2013-03-18	2013-03-18		
	I00010	C00004	M00007	2012-11-25	2012-11-27	2012-11-27		
	I00011	C00004	M00007	2012-11-28	2012-11-30	2012-11-30		
	I00012	C00001	M00001	2013-11-28	2013-11-30	2013-11-30		
	I00013	C00003	M00001	2012-12-03	2012-12-05	2012-12-05		
	I00014	C00003	M00010	2013-01-02	2013-01-04	2013-01-05		
	I00015	C00003	M00011	2013-02-03	2013-02-05	2013-02-06		
	I00016	C00003	M00011	2013-03-05	2013-03-07	2013-03-07		
	I00017	C00003	M00008	2013-05-13	2013-04-17	2013-04-17		
	I00018	C00002	M00010	2015-01-15	2015-01-17	2015-01-17		
	I00019	C00004	M00001	2012-11-15	2012-11-17	2012-11-17		
	NULL	NULL	NULL	NULL	NULL	NULL		

Query:

```
insert into library_card_master values ('CRD001', 'SILVER CARD' ,1000, 1), ('CRD002', 'GOLD CARD ',2000 ,2), ('CRD003', 'PLATINUM CARD' ,3000, 3), ('CRD004', 'DIAMOND CARD', 4000 ,5);
```

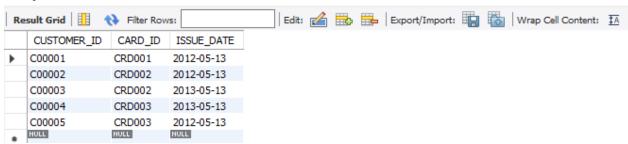
select * from library_card_master;



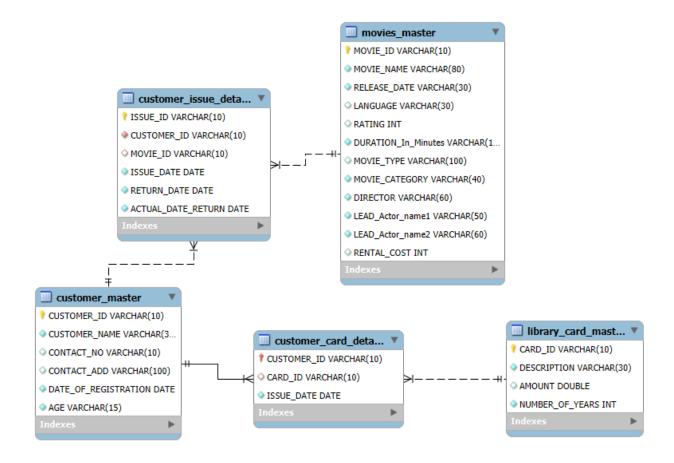
Query:

Insert into CUSTOMER_CARD_DETAILS Values ('C00001','CRD001','2012-05-13'), ('C00002','CRD002','2012-05-13'), ('C00003','CRD002','2013-05-13'), ('C00004','CRD003','2013-05-13'), ('C00005','CRD003','2012-05-13');

select * from CUSTOMER_CARD_DETAILS;



ER Diagram:



Questions & Solutions:

1. Write a query to display movie names and number of times that movie is issued to customers. In case movies are never issued to customers display number of times as 0.

Display the details in sorted order based on number of times (in descending order) and then by movie name (in ascending order).

The Alias name for the number of movies issued is ISSUE_COUNT.

Query:

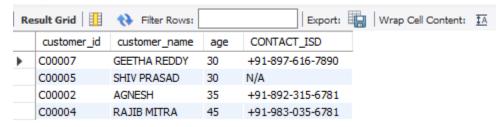
select movie_name, count(issue_id) ISSUE_COUNT from customer_issue_details right join movies_master using(movie_id) group by movie_id order by ISSUE_COUNT desc, movie_name asc:

Output:

	•	
Re	esult Grid 🔠 🙌 Filter	Rows:
	movie_name	ISSUE_COUNT
•	DIE HARD	4
	GONE WITH THE WIND	3
	CASABLANCA	2
	SHAUN OF THE DEAD	2
	THE DARK KNIGHT	2
	TITANIC	2
	INCEPTION	1
	THE MATRIX	1
	OFFICE SPACE	1
	YOUNG FRANKENSTEIN	1
	THE NOTEBOOK	0

2. Write a query to display id, name, age, contact no of customers whose age is greater than 25 and who have registered in the year 2012. Display contact no in the below format +91-XXX-XXXX example +91-987-678-3434 and use the alias name as "CONTACT_ISD". If the contact no is null then display as 'N/A' Sort all the records in ascending order based on age and then by name.

```
select customer_id, customer_name, age, coalesce(CONCAT('+91-', SUBSTRING(contact_no, 1, 3), '-', SUBSTRING(contact_no, 4, 3), '-', SUBSTRING(contact_no, 7, 4)),'N/A') CONTACT_ISD from customer_master where age > 25 and year(DATE_OF_REGISTRATION) = 2012 order by age asc, customer_name asc;
```



3. Write a query to display the movie category and number of movies in that category. Display records based on number of movies from higher to lower order and then by movie category in ascending order.

Hint: Use NO_OF_MOVIES as alias name for number of movies.

Query:

select movie_category, count(movie_id) NO_OF_MOVIES from movies_master group by MOVIE_CATEGORY order by NO_OF_MOVIES desc, movie_category asc;

Output:



4. Write a query to display the number of customers having card with description "Gold card". Use CUSTOMER_COUNT as alias name for number of customers.

Query:

select count(customer_id) CUSTOMER_COUNT from library_card_master join customer_card_details using(card_id) where DESCRIPTION = 'GOLD CARD'



5. Write a query to display the customer id, customer name, year of registration, library card id, card issue date of all the customers who hold library card. Display the records sorted by customer name in descending order. Use REGISTERED_YEAR as alias name for year of registration.

Query:

select customer_id, customer_name, year(date_of_registration) REGISTERED_YEAR, card_id, issue_date from customer_master join customer_card_details using(customer_id) order by CUSTOMER_NAME desc;

Output:

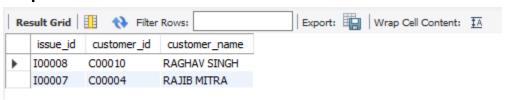


6. Write a query to display issue id, customer id, customer name for the customers who have paid fine and whose name starts with 'R'. Fine is calculated based on return date and actual date of return. If the date of actual return is after date of return then fine need to be paid by the customer.

Display the records sorted in ascending order based on customer name.

Query:

select issue_id, customer_id, customer_name from customer_issue_details join customer_master using(customer_id) where actual_date_return > return_date and CUSTOMER_NAME like 'R%' order by CUSTOMER_NAME;



7. Write a query to display customer id, customer name, card id, card description and card amount in dollars of customers who have taken movie on the same day the library card is registered. For Example Assume John registered a library card on 12th Jan 2013 and he took a movie on 12th Jan 2013 then display his details. AMOUNT_DOLLAR = amount/85.8 and round it to zero decimal places and display as \$Amount. Example Assume 500 is the amount then dollar value will be \$10. Use AMOUNT_DOLLAR as alias name for amount in dollar. Display the records in ascending order based on customer name.

Query:

select customer_id, customer_name, card_id, description, concat('\$',round(amount/85.8,0))

AMOUNT_DOLLAR from customer_master join customer_issue_details cid

using(customer_id)join customer_card_details ccd using(customer_id) join library_card_master

using(card_id) where cid.ISSUE_DATE = ccd.ISSUE_DATE order by customer_name;

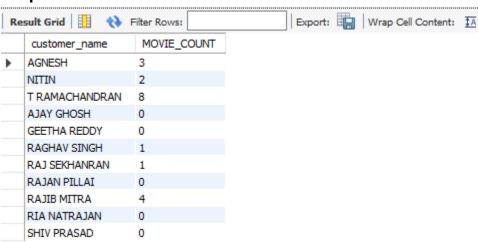
Output:



8. Write a query to display the customer name and number of movies issued to that customer sorted by customer name in ascending order. If a customer has not been issued with any movie then display 0. Use MOVIE_COUNT as alias name for number of movies issued.

Query:

select customer_name, count(issue_id) MOVIE_COUNT from customer_master left join customer_issue_details using(customer_id) group by CUSTOMER_ID order by customer_name;

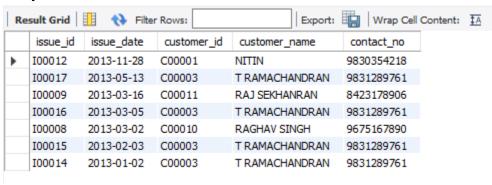


9. Write a query to display the issue id, issue date, customer id, customer name and contact number for videos that are issued in the year 2013. Display the records in descending order based on issue date of the video.

Query:

select issue_id, issue_date, customer_id, customer_name, contact_no from customer_master join customer_issue_details using(customer_id) where year(ISSUE_DATE) = 2013 order by ISSUE_DATE desc;

Output:



10. Write a query to display the director's name, number of movies directed by the director who directed more than one movie. Display the director name in capital letters. Use DIRECTOR_NAME as alias name for director name column Display the records sorted in ascending order based on director_name.

Query:

select upper(director) DIRECTOR_NAME, count(movie_id) from movies_master group by director having count(movie_id) > 1 order by director;

