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AMINA SHAFIQUE

21011519-034

SUBMITTED TO

SIR ZAHID



Database Project

Library Management System

Introduction

A library which contains different categories of books, and each category is managed by different staff members. The library has members of two types i.e. clients and readers. Only members can read and borrow/issue books. Books are issued by staff members.

Database Information

The project is made on SQL Management Server 2014 with database queries. The details of the project are given below:

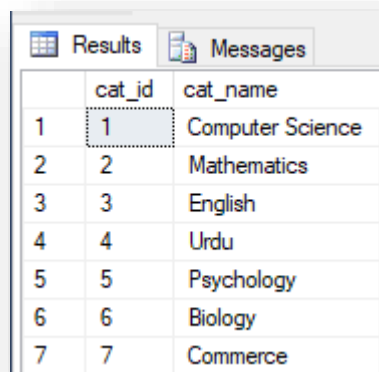
There are a total 8 number of tables in my project:

Tables:

-----Table 1

```
Create table Category (  
cat_id int,  
cat_name varchar (50),  
);  
  
Insert into Category values (1, 'Computer Science');  
Insert into Category values (2, 'Mathematics');  
Insert into Category values (3, 'English');  
Insert into Category values (4, 'Urdu');  
Insert into Category values (5, 'Psychology');  
Insert into Category values (6, 'Biology');  
Insert into Category values (7, 'Commerce');
```

Output:



The screenshot shows a SQL Server Results window with two tabs: 'Results' and 'Messages'. The 'Results' tab is active, displaying a table with two columns: 'cat_id' and 'cat_name'. The table contains seven rows of data, with the first row highlighted. The data is as follows:

	cat_id	cat_name
1	1	Computer Science
2	2	Mathematics
3	3	English
4	4	Urdu
5	5	Psychology
6	6	Biology
7	7	Commerce

-----Table 2

```
Create table Books (  
cat_id int,  
book_id int,  
book_name varchar (50),  
no_of_pages int,  
auth_id int,  
pub_id int,  
v_id int,  
price int,  
);
```

Output:

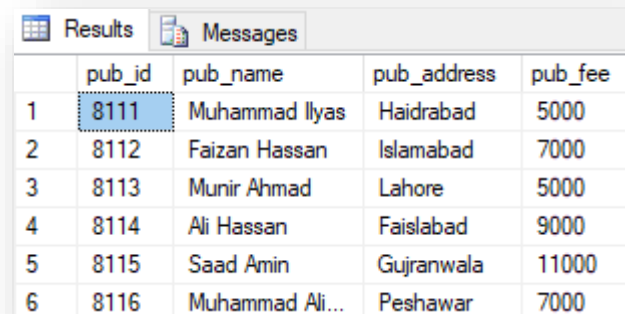
	cat_id	book_id	book_name	no_of_pages	auth_id	pub_id	v_id	price
1	1	1001	Computer Scientist	1000	9001	8111	56	800
2	1	1002	The Chip	900	9002	8111	56	800
3	1	1003	The Second Machine Age	600	9003	8111	56	800
4	1	1004	The Innovators	1000	9004	8111	56	700
5	1	1005	Code Complete	500	9005	8111	58	800
6	1	1006	The Pragmatic Programmer	300	9006	8113	58	200
7	1	1007	Algorithms-4th Edition	1100	9007	8113	58	800
8	1	1008	The Search	400	9008	8113	56	800
9	1	1009	Collective Intelligence	1100	9009	8113	58	800
10	1	1010	Machine Learning	600	9010	8113	58	800
11	2	1011	The Man Who Counted	500	9011	8112	57	1000
12	2	1012	The Universal History of Numbers	450	9012	8112	57	1000
13	2	1013	Zero	500	9013	8112	59	500
14	2	1014	The History of Pi	1050	9014	8112	57	900
15	2	1015	The Triumph of Numbers	500	9015	8112	57	1000
16	2	1016	The Joy of X	1000	9016	8114	59	1000
17	2	1017	Calculus Made Easy	2000	9017	8114	57	700
18	2	1018	Imagining Numbers	500	9018	8114	59	700
19	2	1019	Mathematics: From the birth of ...	1200	9019	8114	56	2000
20	2	1020	Introduction to Mathematics	500	9020	8112	58	1000
21	3	1021	Wuthering Heights	1000	9021	8111	60	700
22	3	1022	Middlemarch	900	9022	8115	61	700
23	3	1023	Nineteen Eighty Four	800	9023	8111	60	1000
24	3	1024	The Lord Of Rings	700	9024	8115	60	500
25	3	1025	Diary of a Nobody	600	9025	8111	61	700

Results		Messages						
	cat_id	book_id	book_name	no_of_pages	auth_id	pub_id	v_id	price
26	3	1026	His dark material, trilogy	500	9026	8115	61	700
27	3	1027	Jane Eyre	450	9027	8111	60	600
28	3	1028	Great Expectations	400	9028	8115	60	500
29	3	1029	Rebecca	600	9029	8111	60	1000
30	3	1030	Far from the Maddling Crowd	1000	9030	8115	61	1500
31	4	1031	Peer-e-Kamil	1000	9034	8112	62	2000
32	4	1032	Humsafar	1000	9032	8112	62	400
33	4	1033	Sang-e-mamar	1000	9033	8112	62	200
34	4	1034	Ehd-e-Wafa	1000	9033	8112	62	1100
35	4	1035	Bin Roye	1000	9032	8112	62	500
36	4	1036	Musam	1000	9035	8112	62	300
37	4	1037	Jannat k Pattey	1000	9031	8112	62	2500
38	4	1038	Anaa	1000	9034	8112	62	400
39	5	1039	The Power Of Habit	500	9036	8113	57	1000
40	5	1040	Influence	600	9037	8116	57	300
41	5	1041	Man Search for Meaning	700	9038	8113	57	800
42	5	1042	Games People Play	800	9039	8116	57	3000
43	5	1043	Mindset	900	9040	8113	57	400
44	5	1044	Flourish	1000	9041	8116	56	500
45	5	1045	Emotional Intelligence	1100	9042	8113	56	600
46	5	1046	The Undiscovered self	700	9043	8116	56	700
47	5	1047	Man and his Symbols	800	9043	8113	56	800
48	5	1048	The Social Animal	900	9044	8116	56	500
49	6	1049	Philosophic Zoolgique	1000	9045	8115	59	2000
50	6	1050	Philosophic Botanica	1200	9046	8115	61	2000

51	6	1051	Historia Generalis Plantarum	1000	9047	8115	61	2000
52	6	1052	Species Platarum	900	9046	8115	59	2000
53	6	1053	Human Anatomy	850	9048	8115	59	2000
54	6	1054	Process of Organic Evalution	1050	9049	8115	61	2000
55	6	1055	On the structure of Human Body	950	9050	8115	59	2000
56	6	1056	Alhasreef	800	9051	8115	61	2000
57	6	1057	The doule Helix	1000	9052	8115	61	2000
58	6	1058	Micrography	1013	9053	8115	59	2000
59	7	1059	Accountancy	500	9054	8113	56	1000
60	7	1060	The Ecology of Commerce	500	9055	8113	56	1000
61	7	1061	Call of the mall	700	9055	8113	56	1000
62	7	1062	The Intelligent investor	500	9056	8113	56	1000
63	7	1063	Why we buy	800	9055	8113	56	1000
64	7	1064	Business Adventure	900	9057	8113	60	1000
65	7	1065	Double Entry	1000	9058	8113	60	1000
66	7	1066	Ninety Percent	800	9059	8113	60	1000
67	7	1067	Teaching of commerce	500	9060	8113	60	1000
68	7	1068	Financial Mnagement	500	9061	8113	60	1000
69	4	1069	Namal	1410	9031	8112	62	2500

-----Table 3

```
Create table Publisher (  
pub_id int,  
pub_name varchar (50),  
pub_address varchar (50),  
pub_fee int,  
);
```



The screenshot shows a database query results window with two tabs: 'Results' and 'Messages'. The 'Results' tab is active, displaying a table with the following data:

	pub_id	pub_name	pub_address	pub_fee
1	8111	Muhammad Ilyas	Haidrabad	5000
2	8112	Faizan Hassan	Islamabad	7000
3	8113	Munir Ahmad	Lahore	5000
4	8114	Ali Hassan	Faislabad	9000
5	8115	Saad Amin	Gujranwala	11000
6	8116	Muhammad Ali...	Peshawar	7000

-----Table 4

```
Create table Author (  
c_id int,  
auth_id int,  
auth_name varchar (50),  
auth_country varchar (50),  
);
```

	c_id	auth_id	auth_name	auth_country
1	1	9001	Cory Althoff	England
2	1	9002	T.R. Reid	England
3	1	9003	Andrew McAfee	Russia
4	1	9004	Walter Isaacson	United States
5	1	9005	Steve McConnell	Russia
6	1	9006	Andrew Hunt	England
7	1	9007	Robert Sedgewick	New Zealand
8	1	9008	John Battele	Australia
9	1	9009	Toby Segaran	England
10	1	9010	Drew Conway	United States
11	2	9011	Malba Tahan	United States
12	2	9012	George Ifrah	England
13	2	9013	Charles Seife	Oman
14	2	9014	Petr Beckman	United States
15	2	9015	I.B. Cohen	Russia
16	2	9016	Steven Strogatz	United States
17	2	9017	Silvanus Thomp...	Oman
18	2	9018	Bary Mazur	England
19	2	9019	Jan Gullberg	United States
20	2	9020	Keith Devlin	United States
21	3	9021	Emily Bronte	Korea
22	3	9022	George Eliot	United States
23	3	9023	George Orwell	Russia
24	3	9024	J.R.R. Tolkein	England
25	3	9025	Weedon Grossm...	Canada

	c_id	auth_id	auth_name	auth_country
26	3	9026	Philip Pullman	Canada
27	3	9027	Charlotte Bronte	England
28	3	9028	Charles Dicken	Denmark
29	3	9029	Daphne du Maur...	Denmark
30	3	9030	Thomas Hardy	Thailand
31	4	9031	Nimra Ahmad	Pakistan
32	4	9032	Farhat Ishtiaq	Pakistan
33	4	9033	Mustafa Afridi	Pakistan
34	4	9034	Umera Ahmad	Pakistan
35	4	9035	Aalia Bukhari	Pakistan
36	5	9036	Charles Duhigg	Korea
37	5	9037	Robert B.Cialdini	United States
38	5	9038	Viktor Frankl	United States
39	5	9039	Eric Beme	Russia
40	5	9040	Carol Dweck	Korea
41	5	9041	Martin E.P.	Denmark
42	5	9042	Daniel Goleman	Thailand
43	5	9043	C.G. Jung	Russia
44	5	9044	Elliot Aranson	United States
45	6	9045	Lamarck	England
46	6	9046	C. Linnaeus	Thailand
47	6	9047	John Ray	United States
48	6	9048	Gallen	Canada
49	6	9049	G.L. Stabbins	Canada
50	6	9050	Vesalius	Denmark

51	6	9051	Abu Al-Qasim	Turkey
52	6	9052	Helix Watson	Australia
53	6	9053	Roberk Hooke	England
54	7	9054	D.K. Goel	Switzerland
55	7	9055	Paco Underhill	Switzerland
56	7	9056	Benjamin Grahm	Switzerland
57	7	9057	John Brooks	England
58	7	9058	Marsha Collier	Oman
59	7	9059	Marsha George	United States
60	7	9060	J.C. Aggarwall	Switzerland
61	7	9061	Khan	Pakistan

-----Table 5

```
Create table vendor (
v_id int,
v_contact varchar (11),
v_address varchar (50),
v_fee int,
);
```

	v_id	v_contact	v_address	v_fee
1	56	03358547211	Gujrat	12000
2	57	03378529631	Karachi	12000
3	58	03314587952	Lahore	9000
4	59	03897541256	Gujrat	12000
5	60	03345687922	Peshawar	12000
6	61	03314569878	Gigit Bal...	12000
7	62	03325648971	Karachi	11000

-----Table 6

```
Create table Member (
m_id int,
m_name varchar (50),
m_type varchar (50),
m_address varchar (50),
expire_date date,
);
```

	m_id	m_name	m_type	m_address	expire_date
1	101	Maryam Shafique	Client	Pakistan	2025-02-21
2	102	Sarah Hanaan	Client	Pakistan	2025-10-28
3	103	Zainab Amin	Client	Pakistan	2025-01-30
4	104	Zainab Saif	Client	Pakistan	2025-02-15
5	105	Eman Siddique	Client	Pakistan	2025-03-01
6	106	Rania Shafique	Reader	Iran	2025-04-02
7	107	Manahil Qadeer	Reader	Iran	2025-04-04
8	108	Samra Ali	Reader	Iran	2025-04-04
9	109	Saad Amin	Reader	Afghanistan	2025-04-10
10	110	Awais Nadeem	Reader	Iran	2025-04-10
11	111	Zhang Lurang	Reader	China	2025-04-02
12	112	Su Zaizai	Reader	China	2025-04-02
13	113	Fang Yuke	Reader	China	2025-05-15
14	114	Zhou Linlin	Reader	China	2025-06-15
15	115	Tang Yibai	Reader	China	2025-06-29
16	116	Kim Su Hun	Reader	South-Korea	2025-07-20
17	117	Lu Si Cheng	Reader	South-korea	2025-07-25
18	118	Yi Ming	Reader	South-Korea	2025-07-25
19	119	Tong Nian	Reader	Thailand	2025-08-01
20	120	Fu Zeyi	Reader	Thailand	2025-08-02

-----Table 7

```
Create table Borrow (  
cat_id int,  
book_id int,  
m_id int,  
issue_date date,  
return_date date,  
staff_id int  
);
```

	cat_id	book_id	m_id	issue_date	return_date	staff_id
1	4	1069	101	2023-07-15	2023-08-15	211
2	1	1007	118	2023-07-17	2023-08-17	212

-----Table 8

```
Create table staff (  
cat_id int,  
staff_id int,  
staff_name varchar (50),  
staff_address varchar (50),  
staff_contact varchar (50),  
);
```

	cat_id	staff_id	staff_name	staff_address	staff_contact
1	1	211	Akbar	Pakistan	03348447040
2	2	212	Ahmad	Pakistan	03324569632
3	3	213	Abdullah	Pakistan	03314563214
4	4	214	Ali	Pakistan	03527894521
5	5	215	Ayaaz	Pakistan	03351234598
6	6	216	Babar	Pakistan	03458912354
7	7	217	Hassan	Pakistan	03332587436

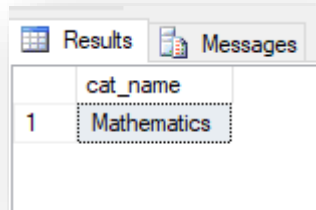
-----Table 9

```
Create table Expired (  
mem_id int,  
mem_name varchar(50),  
Expiry_status varchar(50)  
);
```


-----Procedures

-----Procedure to find categories name by giving numbers

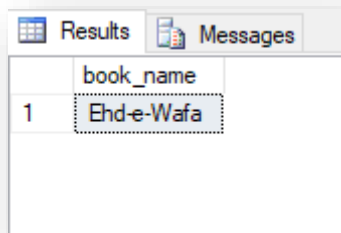
```
Create Procedure  
proc_2 @c_id int  
as  
Select cat_name from Category  
where cat_id = @c_id;  
  
Exec proc_2 @c_id = 2;
```



	cat_name
1	Mathematics

-----Find book name by book id

```
Create Procedure  
proc_3 @b_id int  
as  
select book_name from Books  
where book_id = @b_id;  
  
Exec proc_3 @b_id = 1034;
```



	book_name
1	Ehd-e-Wafa

-----Finding book price by biik name.

```
Create procedure  
proc_4 @b_name varchar (50)  
as  
select book_id, book_name, no_of_pages, price, pub_id, v_id from Books  
Where book_name=@b_name;  
  
Exec proc_4 @b_name = 'The Social Animal';
```

	book_id	book_name	no_of_pages	price	pub_id	v_id
1	1048	The Social Animal	900	500	8116	56

-----Finding book price by book name

```
Create procedure
proc_5 @b_id int
as
select book_name, no_of_pages, price, pub_id, v_id from Books
Where book_id=@b_id;
```

```
Exec proc_5 @b_id=1048;
```

	book_name	no_of_pages	price	pub_id	v_id
1	The Social Animal	900	500	8116	56

-----Finding author name by author id

```
Create procedure
proc_6 @a_id int
as
select auth_name from Author
where auth_id=@a_id;
```

```
Exec proc_6 @a_id = 9034;
```

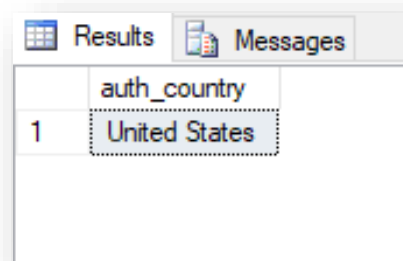
	auth_name
1	Umera Ahmad

-----Finding author country by author name

```
Create procedure
proc_7 @a_name varchar (50)
as
select auth_country from Author
```

```
where auth_name=@a_name;
```

```
Exec proc_7 @a_name='Drew Conway';
```

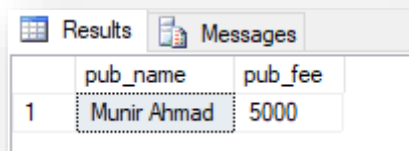


	auth_country
1	United States

-----Finding publisher fee by publisher id

```
Create procedure  
proc_8 @p_id int  
as  
select pub_name, pub_fee from Publisher  
where pub_id=@p_id;
```

```
Exec proc_8 @p_id = 8113;
```

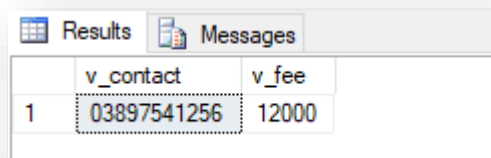


	pub_name	pub_fee
1	Munir Ahmad	5000

-----Finding vendor fee by vendor id

```
Create Procedure  
proc_9 @ven_id int  
as  
select v_contact, v_fee from vendor  
where v_id=@ven_id;
```

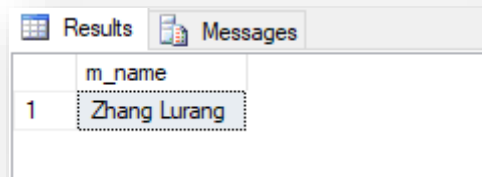
```
Exec proc_9 @ven_id=59;
```



	v_contact	v_fee
1	03897541256	12000

-----Finding member name by member id

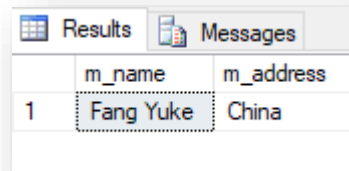
```
Create procedure  
proc_10 @mem_id int  
as  
select m_name from member  
where m_id=@mem_id;  
  
Exec proc_10 @mem_id = 111;
```



	m_name
1	Zhang Lurang

-----Finding member country by member name

```
Create procedure  
proc_11 @mem_name varchar (50)  
as  
select m_name, m_address from member  
where m_name=@mem_name;  
  
Exec proc_11 @mem_name = 'Fang Yuke';
```



	m_name	m_address
1	Fang Yuke	China

-----Finding return date of book_id

```
Create procedure  
proc_12 @b_id int  
as  
select return_date from borrow  
where book_id=@b_id;  
  
Exec proc_12 @b_id = 1007;
```

Results		Messages	
	return_date		
1	2023-08-17		

-----Finding staff contact number by staff name

```
Create procedure
proc_13 @s_name varchar (50)
as
select staff_name, staff_contact from staff
where staff_name=@s_name;

Exec proc_13 @s_name = 'AKBAR';
```

Results		Messages	
	staff_name	staff_contact	
1	Akbar	03348447040	

-----Finding names of all the books of a particular category

```
Create Procedure
proc_14 @c_id int
as
Select category.cat_name,books.book_name from books
inner join Category
on books.cat_id=Category.cat_id
where category.cat_id=@c_id;

Exec proc_14 @c_id = 2;
```

	cat_name	book_name
1	Mathematics	The Man Who Counted
2	Mathematics	The Universal History of Numbers
3	Mathematics	Zero
4	Mathematics	The History of Pi
5	Mathematics	The Triumph of Numbers
6	Mathematics	The Joy of X
7	Mathematics	Calculus Made Easy
8	Mathematics	Imagining Numbers
9	Mathematics	Mathematics: From the birth of numbers
10	Mathematics	Introduction to Mathematics

-----Finding Books names and author name of a particular category

```

Create procedure
proc_16 @c_id int
as
select Category.cat_name, Books.book_name, Author.auth_name from books
inner join category
on books.cat_id=Category.cat_id
inner join author
on books.auth_id=Author.auth_id
where category.cat_id=@c_id;

Exec proc_16 @c_id = 5;

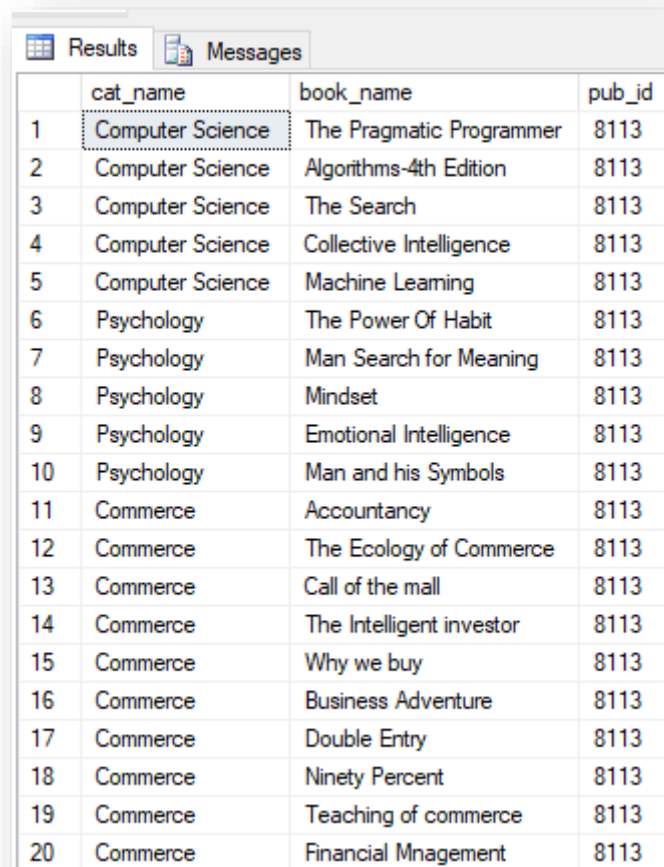
```

	cat_name	book_name	auth_name
1	Psychology	The Power Of Habit	Charles Duhigg
2	Psychology	Influence	Robert B.Cialdini
3	Psychology	Man Search for Meaning	Viktor Frankl
4	Psychology	Games People Play	Eric Berne
5	Psychology	Mindset	Carol Dweck
6	Psychology	Flourish	Martin E.P.
7	Psychology	Emotional Intelligence	Daniel Goleman
8	Psychology	The Undiscovered self	C.G. Jung
9	Psychology	Man and his Symbols	C.G. Jung
10	Psychology	The Social Animal	Elliot Aranson

-----Finding books name published by particular publisher

```
Create procedure
proc_17 @p_id int
as
Select category.cat_name, books.book_name, Publisher.pub_id from books
inner join publisher
on books.pub_id=Publisher.pub_id
inner join Category
on books.cat_id = Category.cat_id
where publisher.pub_id=@p_id;
```

```
Exec proc_17 @p_id = 8113;
```



The screenshot shows a SQL query results window with two tabs: 'Results' and 'Messages'. The 'Results' tab is active, displaying a table with the following columns: 'cat_name', 'book_name', and 'pub_id'. The table contains 20 rows of data, numbered 1 to 20. The first row is highlighted. The data is as follows:

	cat_name	book_name	pub_id
1	Computer Science	The Pragmatic Programmer	8113
2	Computer Science	Algorithms-4th Edition	8113
3	Computer Science	The Search	8113
4	Computer Science	Collective Intelligence	8113
5	Computer Science	Machine Learning	8113
6	Psychology	The Power Of Habit	8113
7	Psychology	Man Search for Meaning	8113
8	Psychology	Mindset	8113
9	Psychology	Emotional Intelligence	8113
10	Psychology	Man and his Symbols	8113
11	Commerce	Accountancy	8113
12	Commerce	The Ecology of Commerce	8113
13	Commerce	Call of the mall	8113
14	Commerce	The Intelligent investor	8113
15	Commerce	Why we buy	8113
16	Commerce	Business Adventure	8113
17	Commerce	Double Entry	8113
18	Commerce	Ninety Percent	8113
19	Commerce	Teaching of commerce	8113
20	Commerce	Financial Mnagement	8113

-----Finding books name and author name of a published by a particular publisher

```
Create Procedure
proc_18 @p_id int
```

```

as
Select Category.cat_name, book_name, Author.auth_name, Publisher.pub_id from books
inner join publisher
on books.pub_id=Publisher.pub_id
inner join Author
on Books.auth_id=Author.auth_id
inner join Category
on Books.cat_id=Category.cat_id
where Publisher.pub_id=@p_id;

Exec proc_18 @p_id = 8113;

```

	cat_name	book_name	auth_name	pub_id
1	Computer Science	The Pragmatic Programmer	Andrew Hunt	8113
2	Computer Science	Algorithms-4th Edition	Robert Sedgewick	8113
3	Computer Science	The Search	John Battele	8113
4	Computer Science	Collective Intelligence	Toby Segaran	8113
5	Computer Science	Machine Learning	Drew Conway	8113
6	Psychology	The Power Of Habit	Charles Duhigg	8113
7	Psychology	Man Search for Meaning	Viktor Frankl	8113
8	Psychology	Mindset	Carol Dweck	8113
9	Psychology	Emotional Intelligence	Daniel Goleman	8113
10	Psychology	Man and his Symbols	C.G. Jung	8113
11	Commerce	Accountancy	D.K. Goel	8113
12	Commerce	The Ecology of Commerce	Paco Underhill	8113
13	Commerce	Call of the mall	Paco Underhill	8113
14	Commerce	Why we buy	Paco Underhill	8113
15	Commerce	The Intelligent investor	Benjamin Graham	8113
16	Commerce	Business Adventure	John Brooks	8113
17	Commerce	Double Entry	Marsha Collier	8113
18	Commerce	Ninety Percent	Marsha George	8113
19	Commerce	Teaching of commerce	J.C. Aggarwall	8113
20	Commerce	Financial Mnagement	Khan	8113

-----Finding books name purchased by a particular vendor

```

Create Procedure
proc_19 @ven_id int
as
Select Category.cat_name, Books.book_name, vendor.v_id from books
inner join Category
on category.cat_id=Books.cat_id
inner join Vendor
on vendor.v_id=Books.v_id
where vendor.v_id=@ven_id;

Exec proc_19 @ven_id =56;

```


	cat_name	book_name	v_id
1	Computer Science	Computer Scientist	56
2	Computer Science	The Chip	56
3	Computer Science	The Second Machine Age	56
4	Computer Science	The Innovators	56
5	Computer Science	The Search	56
6	Mathematics	Mathematics: From the birth of numbers	56
7	Psychology	Flourish	56
8	Psychology	Emotional Intelligence	56
9	Psychology	The Undiscovered self	56
10	Psychology	Man and his Symbols	56
11	Psychology	The Social Animal	56
12	Commerce	Accountancy	56
13	Commerce	The Ecology of Commerce	56
14	Commerce	Call of the mall	56
15	Commerce	The Intelligent investor	56
16	Commerce	Why we buy	56

-----Finding book name, author name of a particular vendor

```
Create procedure
proc_20 @pub_id int, @a_id int
as
select Category.cat_name, Books.book_name from books
inner join Category
on Category.cat_id=Books.cat_id
inner join Author
on Author.auth_id=Books.auth_id
Inner join Publisher
on Publisher.pub_id=books.pub_id
where Publisher.pub_id= @pub_id and author.auth_id = @a_id;

Exec proc_20 @pub_id = 8112 , @a_id=9032;
```

	cat_name	book_name
1	Urdu	Humsafar
2	Urdu	Bin Roye

-----Finding a book with writer name this and and price this

```
Create procedure
proc_21 @a_name varchar (50), @b_price int
as
select Books.book_name, Books.no_of_pages from books
inner join Author
on Books.auth_id=Author.auth_id
WHERE Author.auth_name=@a_name AND Books.price=@b_price;

Exec proc_21 @a_name = 'Philip Pullman', @b_price = 700;
```

Results		Messages
	book_name	no_of_pages
1	His dark material, trilogy	500

-----Finding a book which is issued by this staff

```
Create procedure
proc_22 @s_id int
as
select Books.book_name, Borrow.return_date from Books
inner join Borrow
on Books.book_id=Borrow.book_id
where Borrow.staff_id = @s_id;

Exec proc_22 @s_id = 212;
```

Results		Messages
	book_name	return_date
1	Algorithms-4th Edition	2023-08-17

-----Finding total number of books in library

```
Create procedure
proc_23
as
Select count(book_id) as 'Total number of books in library' from Books;

Exec proc_23;
```

Results		Messages
	Total number of books in library	
1	69	

-----Finding total number of employee in library

```
Create procedure
proc_24
as
Select count(staff_id) as 'Total number of employees in library' from staff;

Exec proc_24;
```

Results Messages	
Total number of employees in library	
1	7

-----Finding total number of member--reader in library from specific country

Create procedure

```
proc_25 @mem_type varchar (50) , @mem_country varchar (50)
as
```

```
Select count(m_id) as 'Total number of reader in library' from Member
where m_type = @mem_type and m_address = @mem_country;
```

```
Exec proc_25 @mem_type = 'Reader' , @mem_country = 'china';
```

Results Messages	
Total number of reader in library	
1	5

-----Books group by categories

Create Procedure

```
proc_26
```

```
as
```

```
select Category.cat_name, count(book_id) as 'No of books' from books
inner join Category
on Category.cat_id=Books.cat_id
group by cat_name
order by cat_name asc;
```

```
exec proc_26;
```

Results Messages		
	cat_name	No of books
1	Biology	10
2	Commerce	10
3	Computer Science	10
4	English	10
5	Mathematics	10
6	Psychology	10
7	Urdu	9

-----Find average price of books in library

Create Procedure

proc_27

as

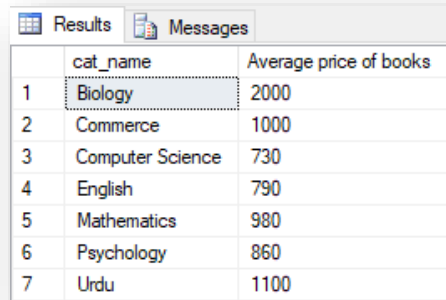
select Category.cat_name, avg(price) as 'Average price of books' from books

inner join Category

on Category.cat_id = Books.cat_id

group by cat_name;

exec proc_27;



	cat_name	Average price of books
1	Biology	2000
2	Commerce	1000
3	Computer Science	730
4	English	790
5	Mathematics	980
6	Psychology	860
7	Urdu	1100

-----Total number of

members in library

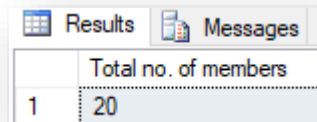
Create Procedure

proc_28

as

select count(m_id) as 'Total no. of members' from Member;

exec proc_28;



	Total no. of members
1	20



Library Management System

E-R diagram

