

# Reports

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## 1. Get all books, and the corresponding author, publisher and section

```
select title, author_name, sname, publisher_name
from item
join written on item.id = written.item_Id
join author on author.id = written.author_id
join section on section.id = item.section_id
join publisher on publisher.id = item.publisher_id
```

	Title	Author_Name	SName	Publisher_Name
1	Gray's Anatomy	Henry Gray	Medicine	Pearson
2	Calculus	James Stewart	Engineering	O'Reilly
3	Database Systems	Ramez Elmasri	Engineering	O'Reilly
4	الأيام	Taha Hussein	Literature	Al Ahram
5	Hamlet	William Shakespeare	Literature	Penguin
6	Oliver Twist	Charles Dickens	Literature	Penguin

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## 2. Get total number of books in each section

```
select sname, count(*) AS "Number of books"
from item
join written on item.id = written.item_id
join section on item.section_id = section.id
where written.book_flag IS NOT NULL
group by sname
```

	SName	Number of books
1	Engineering	2
2	Literature	3
3	Medicine	1

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### 3. Get list of unreturned books, and the member who borrowed them

```
select title, borrow_date, first_name, last_name, phone
from item
join written on (item.id = written.item_id)
join borrows on (item.id = borrows.item_id)
join member on (member.ssn = borrows.ssn)
where written.book_flag is not null and
borrows.return_date is null
```

	Title	Borrow_Date	First_Name	Last_Name	Phone
1	Gray's Anatomy	2018-12-01	Amira	Nagy	01001234567
2	Database Systems	2018-11-25	Adel	Zaki	01221234567

### 4. Get members who never borrowed a book

```
select *
from member
where not exists (select *
                  from borrows
                  where member.ssn = borrows.ssn)
```

	SSN	First_Name	Last_Name	Phone	End_Membership_Date	Age	Adr
1	444	Rania	Ramzy	01001234567	21/3/2019	12	9 Blue St.

### 5. Get sections that has less than 2 books

```
select sname, count(*)
from section
join item on item.section_id = section.id
join written on item.id = written.item_id
where written.book_flag is not NULL
group by sname
having count(*) < 2
order by count(*)
```

	SName	count(*)
1	Medicine	1

6. Get total number of borrows for each member (including members who never borrowed a book)

```
select      first_name, last_name, count(borrows.ssn) as "Number of borrows"
from        member
           left outer join borrows on member.ssn = borrows.ssn
group by    member.ssn
order by    "Number of borrows" DESC
```

	First_Name	Last_Name	Number of borrows
1	Ramy	Fouad	3
2	Amira	Nagy	2
3	Adel	Zaki	2
4	Rania	Ramzy	0