

Kathmandu University

**Department of Computer Science and
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A Report on ‘Lab Work 2’ [COMP 232]

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**Submitted to:
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Tables made in this lab work according to the er diagram submitted in previous lab 1 are attached below;

Author table

	author_id	auth_name	phone_no	email	qualification	dob	gender
▶	1	saugat poudel	9842101201	saugat.poudel478@gmail.com	phd in literature	1964-02-21	male
	2	swastik acharya	9842101211	swastik.acharya@gmail.com	phd in arts	1965-02-22	male
	3	sukriti poudel	9842104201	sukriti.poudel118@gmail.com	phd in literature	1955-06-01	female
	4	aryan dahal	9842185201	aryan.dahal852@gmail.com	masters in business	1968-03-25	male
	5	rohan dhakal	9844561201	rohan.dhakal666@gmail.com	phd in literature	1962-03-28	male
	6	saskar khadka	9842221201	saskar.khadka99@gmail.com	phd in psychology	1963-04-27	male
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Book table

	book_id	editionno	page_no	isbn_no	price	published_date	language	title	genre	auth_id
▶	1	10	500	979	2000	2021-10-22	English	Dont look up	sci-fi	1
	2	11	5000	978	20000	2021-10-07	English	Ambience	sci-fi	1
	3	12	200	975	200	2021-10-05	English	look down	lovestory	1
	4	13	300	95	700	2021-10-06	Nepali	pari	lovestory	2
	5	14	400	105	800	1998-10-21	Nepali	sathi	fiction	2
	6	15	500	108	850	1992-07-06	korean	miracle in cell no 7	novel	4
	7	16	666	852	5000	1992-04-08	nepali	shaswot prem	novel	5
	8	17	455	999	5000	1992-04-08	english	amplify	sci-fi	2
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Magazine table

	magazine_id	title	language	page_no	genre	issue_no	price	published_date
▶	1	family cricle	english	25	family fun	78952	2000	2021-10-20
	2	achyut	nepali	30	yoga	66628	2000	2021-10-23
	3	ronaldo	english	15	sport	55846	1500	2021-10-25
	4	redbook	english	10	family fun	78265	1000	2020-10-11
	5	wired	english	50	science	8888	3000	2020-10-30
	6	traditional home	english	22	culture	41256	1800	2020-11-20
	7	ashram	nepali	222	culture	41446	5000	2020-08-05

Distributor table

	distributor_id	location	email	pan_no	shop_name	phone_no
▶	1	birtamode	saugat.poudel478@gmail.com	422168	sarika books	9842623204
	2	surunga	ram.khanal@gmail.com	422178	surunga books	9842101201
	3	kathmandu	shyam.prasai@gmail.com	400198	authentic books	9807952323
	4	bhaktapur	sitasharma@gmail.com	22168	stationary and books	9852670110
	5	kavre	hariprasad@gmail.com	144167	sunshine books	984241401
	6	bhadrapur	sitoshna@gmail.com	421858	sitoshna books	9844689185
•	NULL	NULL	NULL	NULL	NULL	NULL

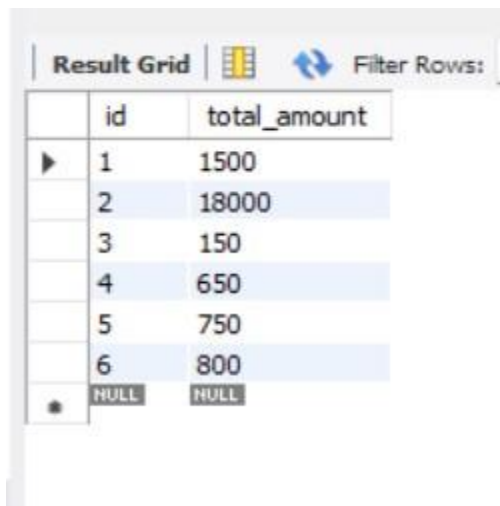
book_order table

	quantity	order_date	discount	book_id	id
▶	20	2021-10-21	500	1	1
	25	2021-08-22	500	1	2
	35	2021-08-22	500	1	5
	40	2021-08-09	500	1	6
	10	2021-12-18	2000	2	3
	30	2022-02-19	50	3	4
•	NULL	NULL	NULL	NULL	NULL

Authoredby table

	author_id	book_id
▶	1	1
	1	2
	1	3
	2	4
	2	5
	4	6
•	NULL	NULL

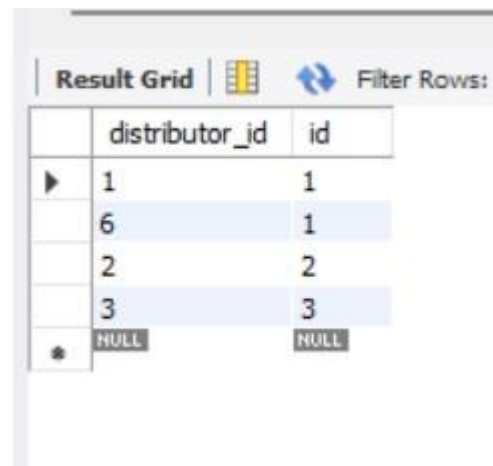
Orders



Result Grid | Filter Rows:

	id	total_amount
▶	1	1500
	2	18000
	3	150
	4	650
	5	750
	6	800
•	NULL	NULL

Makes order table



Result Grid | Filter Rows:

	distributor_id	id
▶	1	1
	6	1
	2	2
	3	3
•	NULL	NULL

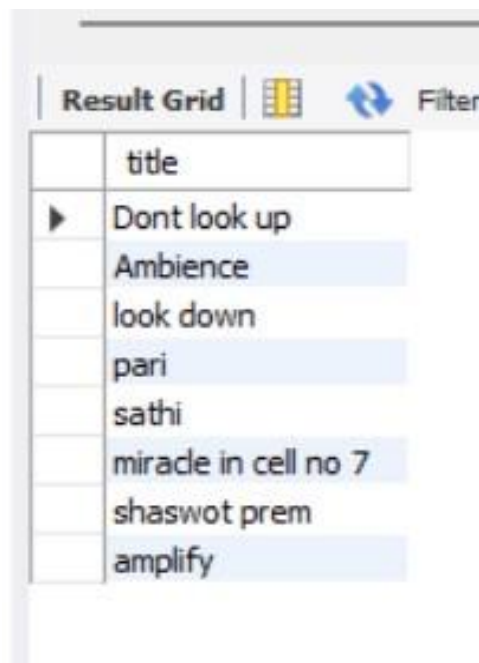
PROBLEMS OF QUESTION NO 6 SOLVED HERE

-- 1 find the name of all published books

Query:

π_{title} books

select title from books;



Result Grid | Filter

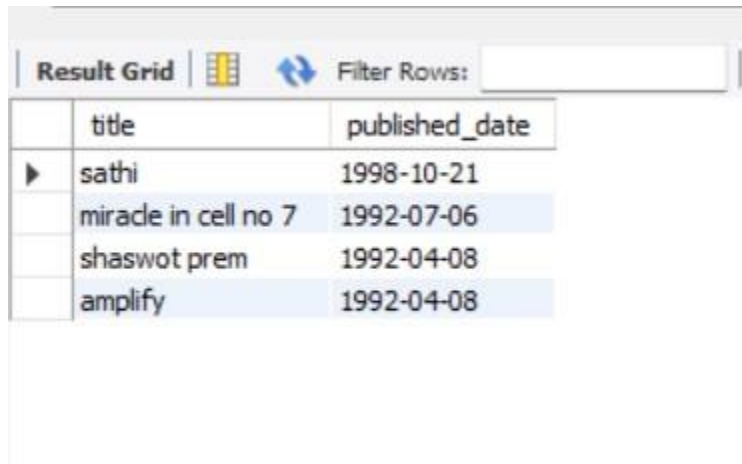
	title
▶	Dont look up
	Ambience
	look down
	pari
	sathi
	mirade in cell no 7
	shaswot prem
	amplify

-- 2 find the name of all published books before 2000

Query:

Π title, published_date
 σ published_date < "2000-01-01" books

```
select title, published_date
from books
where published_date < '2000-01-01';
```



The screenshot shows a database interface with a 'Result Grid' tab. It contains a table with two columns: 'title' and 'published_date'. There are four rows of data, with the first row expanded to show a small triangle icon on the left. The data is as follows:

	title	published_date
▶	sathi	1998-10-21
	miracle in cell no 7	1992-07-06
	shaswot prem	1992-04-08
	amplify	1992-04-08

-- 3 get the details of the book written by a particular author

Query:

Π b . book_id, editionno, published_date, language, title, genre, author . auth_name, title, page_no, isbn_no, genre
(ρ_b books \bowtie b . book_id = a . book_id
 ρ_a authored_by \bowtie auth_name = "swastik acharya" AND author . author_id = a . author_id author)

```
select b.book_id,editionno,published_date,language,title,genre,
author.auth_name, title, page_no, isbn_no, genre
from books as b
join authored_by as a
on b.book_id = a.book_id join author on auth_name = "swastik acharya" and
author.author_id = a.author_id;
```

```
select b.book_id,editionno,published_date,language,title,genre, author.auth_name,
title, page_no, isbn_no, genre
from books as b
join authored_by as a
on b.book_id = a.book_id join author on auth_name = "saugat poudel" and
author.author_id = a.author_id;
```

Result Grid											
Filter Rows:			Export:		Wrap Cell Content: I A						
	book_id	editionno	published_date	language	title	genre	auth_name	title	page_no	isbn_no	genre
▶	1	10	2021-10-22	English	Dont look up	sci-fi	saugat poudel	Dont look up	500	979	sci-fi
	2	11	2021-10-07	English	Ambience	sci-fi	saugat poudel	Ambience	5000	978	sci-fi
	3	12	2021-10-05	English	look down	lovestory	saugat poudel	look down	200	975	lovestory

Result Grid											
Filter Rows:			Export:		Wrap Cell Content: I A						
	book_id	editionno	published_date	language	title	genre	auth_name	title	page_no	isbn_no	genre
▶	4	13	2021-10-06	Nepali	pari	lovestory	swastik acharya	pari	300	95	lovestory
	5	14	1998-10-21	Nepali	sathi	fiction	swastik acharya	sathi	400	105	fiction

-- 4 Find the name of all weekly publications.

Query:

Π title, published_date

σ published_date > "2021-10-01" **books**

Π title, published_date

σ published_date > "2021-10-19" **magazine**

```
select title,published_date
from books
where published_date > '2021-10-01';
```

```
select title,published_date
from magazine
where published_date > '2021-10-19';
```

Magazine

Result Grid			Filter Rows:
	title	published_date	
▶	family circle	2021-10-20	
	achyut	2021-10-23	
	ronaldo	2021-10-25	

Books

Result Grid			Filter Rows:
	title	published_date	
▶	Dont look up	2021-10-22	
	Ambience	2021-10-07	
	look down	2021-10-05	
	pari	2021-10-06	

-- 5 find the name of pre ordered books

Query:

Π id, quantity, title, order_date, editionno, page_no, isbn_no, price
 $\sigma_{o.order_date < books.published_date}$
 $(\rho_o book_order \bowtie_{o.book_id = books.book_id} books)$

select id, quantity, title, order_date, editionno, page_no, isbn_no, price
from book_order as o join books on o.book_id = books.book_id
where o.order_date < books.published_date;

Result Grid									Filter Rows:	Export:	Wrap Cell Content:
	id	quantity	title	order_date	editionno	page_no	isbn_no	price			
▶	1	20	Dont look up	2021-10-21	10	500	979	2000			
	2	25	Dont look up	2021-08-22	10	500	979	2000			
	5	40	look down	2021-08-09	12	200	975	200			
	4	34	pari	2021-08-22	13	300	95	700			

-- 6 Get the details of all publications with the name starting with an 'A'.

Query:

σ title LIKE "A%" **books**

σ title LIKE "A%" **magazine**

select * from books where title like 'A%';

select * from magazine where title like 'A%';

	book_id	editionno	page_no	isbn_no	price	published_date	language	title	genre	auth_id
▶	2	11	5000	978	20000	2021-10-07	English	Ambience	sci-fi	1
	8	17	455	999	5000	1992-04-08	english	amplify	sci-fi	2
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

	magazine_id	title	language	page_no	genre	issue_no	price	published_date
▶	2	achyut	nepali	30	yoga	66628	2000	2021-10-23
	7	ashram	nepali	222	culture	41446	5000	2020-08-05

-- 7 Find all the orders for a particular book. The result must be sorted based on the order date.

Query:



π book_order . order_date

π book_order . id, title, order_date, quantity



σ books . title = "Dont look up" (**books** \bowtie book_order . book_id = books . book_id **book_order**)

select book_order.id, title, order_date, quantity
from books join book_order on book_order.book_id = books.book_id
where books.title ='Dont look up' order by book_order.order_date;

select book_order.id, title, order_date, quantity
from books join book_order on book_order.book_id = books.book_id
where books.title ='Dont look up' order by book_order.order_date desc;

Result Grid   Filter Rows: <input type="text"/>					Export
	id	title	order_date	quantity	
▶	2	Dont look up	2021-08-22	25	
	1	Dont look up	2021-10-21	20	

Desc order by date

Result Grid   Filter Rows: <input type="text"/>					Export
	id	title	order_date	quantity	
▶	1	Dont look up	2021-10-21	20	
	2	Dont look up	2021-08-22	25	