

MySQL Tasks

1. For the cats table created in the previous task, write SQL queries to :

Change Jackson's name to Jack

Change Ringo's breed to "British Shorthair"

Update both Maine Coons' ages to be 12

Delete all 4 year old cats

Delete cats whose age is the same as their cat_id

Delete all data in cats table

2. Execute the below query :

```
CREATE TABLE books
```

```
(
    book_id INT NOT NULL AUTO_INCREMENT,
    title VARCHAR(100),
    author_fname VARCHAR(100),
    author_lname VARCHAR(100),
    released_year INT,
    stock_quantity INT,
    pages INT,
    PRIMARY KEY(book_id)
);
```

```
INSERT INTO books (title, author_fname, author_lname,
released_year, stock_quantity, pages)
VALUES
('The Namesake', 'Jhumpa', 'Lahiri', 2003, 32, 291),
('Norse Mythology', 'Neil', 'Gaiman', 2016, 43, 304),
('American Gods', 'Neil', 'Gaiman', 2001, 12, 465),
('Interpreter of Maladies', 'Jhumpa', 'Lahiri', 1996, 97,
198),
('A Hologram for the King: A Novel', 'Dave', 'Eggers', 2012,
154, 352),
('The Circle', 'Dave', 'Eggers', 2013, 26, 504),
('The Amazing Adventures of Kavalier & Clay', 'Michael',
'Chabon', 2000, 68, 634),
('Just Kids', 'Patti', 'Smith', 2010, 55, 304),
('A Heartbreaking Work of Staggering Genius', 'Dave',
'Eggers', 2001, 104, 437),
('Coraline', 'Neil', 'Gaiman', 2003, 100, 208),
('What We Talk About When We Talk About Love: Stories',
'Raymond', 'Carver', 1981, 23, 176),
('Where I'm Calling From: Selected Stories', 'Raymond',
'Carver', 1989, 12, 526),
('White Noise', 'Don', 'DeLillo', 1985, 49, 320),
('Cannery Row', 'John', 'Steinbeck', 1945, 95, 181),
('Oblivion: Stories', 'David', 'Foster Wallace', 2004, 172,
329),
('Consider the Lobster', 'David', 'Foster Wallace', 2005, 92,
343);
```

Write SQL Queries to :

Select all titles that contain the word 'stories'

title
What We Talk About When We Talk About Love: Stories
Where I'm Calling From: Selected Stories
Oblivion: Stories

Find the longest book. Print its title and page count.

title	pages
The Amazing Adventures of Kavalier & Clay	634

Print a summary containing the title and year, for the 3 most recent books

summary
Lincoln In The Bardo - 2017
Norse Mythology - 2016
10% Happier - 2014

Find all books with an author_lname that contains a space character.

title	author_lname
Oblivion: Stories	Foster Wallace
Consider the Lobster	Foster Wallace

Find the 3 books with the lowest stock. Select title, year and stock.

title	released_year	stock_quantity
American Gods	2001	12
Where I'm Calling From: Selected Stories	1989	12
What We Talk About When We Talk About Love: Stories	1981	23

Print out how many books were released in each year.

Print out the total number of books in stock

Output this data :

year	# books	avg pages
1945	1	181.0000
1981	1	176.0000
1985	1	320.0000
1989	1	526.0000
1996	1	198.0000
2000	1	634.0000
2001	3	443.3333
2003	2	249.5000
2004	1	329.0000
2005	1	343.0000
2010	1	304.0000
2012	1	352.0000
2013	1	504.0000
2014	1	256.0000
2016	1	304.0000
2017	1	367.0000

3. Create two tables named **Students** and **Papers**.

```
CREATE TABLE students (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    first_name VARCHAR(100)  
);
```

```
CREATE TABLE papers (  
    title VARCHAR(100),  
    grade INT,  
    student_id INT,  
    FOREIGN KEY (student_id)  
        REFERENCES students(id)  
        ON DELETE CASCADE  
);
```

```
INSERT INTO students (first_name) VALUES  
( 'Caleb'),  
( 'Samantha'),  
( 'Raj'),  
( 'Carlos'),  
( 'Lisa');
```

```
INSERT INTO papers (student_id, title, grade ) VALUES  
(1, 'My First Book Report', 60),  
(1, 'My Second Book Report', 75),  
(2, 'Russian Lit Through The Ages', 94),  
(2, 'De Montaigne and The Art of The Essay', 98),  
(4, 'Borges and Magical Realism', 89);
```

Write SQL queries to :

Print this output :

first_name	title	grade
Samantha	De Montaigne and The Art of The Essay	98
Samantha	Russian Lit Through The Ages	94
Carlos	Borges and Magical Realism	89
Caleb	My Second Book Report	75
Caleb	My First Book Report	60

Print this output :

first_name	title	grade
Caleb	My First Book Report	60
Caleb	My Second Book Report	75
Samantha	Russian Lit Through The Ages	94
Samantha	De Montaigne and The Art of The Essay	98
Raj	NULL	NULL
Carlos	Borges and Magical Realism	89
Lisa	NULL	NULL

Print this output :

first_name	title	grade
Caleb	My First Book Report	60
Caleb	My Second Book Report	75
Samantha	Russian Lit Through The Ages	94
Samantha	De Montaigne and The Art of The Essay	98
Raj	MISSING	0
Carlos	Borges and Magical Realism	89
Lisa	MISSING	0

Print this output :

first_name	average
Samantha	96.0000
Carlos	89.0000
Caleb	67.5000
Raj	0
Lisa	0

Print this output :

A student passes if the average > 75.

first_name	average	passing_status
Samantha	96.0000	PASSING
Carlos	89.0000	PASSING
Caleb	67.5000	FAILING
Raj	0	FAILING
Lisa	0	FAILING