```
CREATE SCHEMA `exercise3` ;


CREATE TABLE users
( id int AUTO_INCREMENT,
  name varchar(255),
  type ENUM('admin', 'normal'),
  PRIMARY KEY(id)
);

INSERT INTO users(name, type) VALUES('Nishant', 'admin');
INSERT INTO users(name, type) VALUES('Navin', 'normal');
INSERT INTO users(name, type) VALUES('Deepak', 'normal');
INSERT INTO users(name, type) VALUES('Bhavik', 'admin');


CREATE TABLE categories
( id int AUTO_INCREMENT,
  name varchar(255),
  PRIMARY KEY(id)
);

INSERT INTO categories(name) VALUES('Travel');
INSERT INTO categories(name) VALUES('Adventur');
INSERT INTO categories(name) VALUES('History');
INSERT INTO categories(name) VALUES('Space');

CREATE TABLE articles
( id int AUTO_INCREMENT,
  user_id int,
  category_id int,
  title varchar(255),
  PRIMARY KEY(id ,title),
  FOREIGN KEY(user_id) REFERENCES users(id),
  FOREIGN KEY(category_id) REFERENCES categories(id)
);


INSERT INTO articles(user_id, category_id, title) VALUES(2, 4, 'Future in space');
INSERT INTO articles(user_id, category_id, title) VALUES(1, 3, 'Historic Places');
INSERT INTO articles(user_id, category_id, title) VALUES(4, 2, 'Wild Adventures');
INSERT INTO articles(user_id, category_id, title) VALUES(3, 4, 'New Technologies');
INSERT INTO articles(user_id, category_id, title) VALUES(3, 1, 'Travel places');
INSERT INTO articles(user_id, category_id, title) VALUES(1, 1, 'Travel Plans');
```

```
CREATE TABLE comments
( id int AUTO_INCREMENT,
  user_id int,
  article_id int,
  comment_text varchar(255),
  PRIMARY KEY(id),
  FOREIGN KEY(user_id) REFERENCES users(id),
  FOREIGN KEY(article_id) REFERENCES articles(id)
);

INSERT INTO comments(user_id, article_id, comment_text) VALUES(1, 1, 'Very Helpful');
INSERT INTO comments(user_id, article_id, comment_text) VALUES(3, 1, 'Nice');
INSERT INTO comments(user_id, article_id, comment_text) VALUES(2, 3, 'Accurate');
INSERT INTO comments(user_id, article_id, comment_text) VALUES(1, 4, 'Average');
INSERT INTO comments(user_id, article_id, comment_text) VALUES(4, 2, 'Very Great');
```

2 select all articles whose author's name is user3

```
SELECT users.name, articles.title AS article FROM articles
INNER JOIN users WHERE users.name IN(SELECT name FROM users WHERE id = 3)
AND articles.user_id = users.id;
```

```
Deepak          New Technologies
Deepak          Travel places
```

2.1)select all articles whose author's name is user3 (Do this exercise using variable also).

```
SET @user_id = 3;
SELECT users.name, articles.title AS article FROM articles
INNER JOIN users WHERE users.id = @user_id
AND articles.user_id = users.id;
```

```
Deepak          New Technologies
Deepak          Travel places
```

3 For all the articles being selected above, select all the articles and also the comments associated with those articles in a single query (Do this using subquery also)

```
SELECT articles.title AS article, comments.comment_text AS comment FROM comments
INNER JOIN articles WHERE articles.title
IN(SELECT title FROM articles WHERE user_id = 3)
AND comments.article_id = articles.id;
```

```
New Technologies    Average
```

3.2) For all the articles being selected above, select all the articles and also the comments associated with those articles in a single query (Do this using subquery also)

```
SELECT article_id, comment_text
FROM comments
WHERE article_id IN (
  SELECT id FROM articles
  WHERE user_id = 3
);
```

4 Write a query to select all articles which do not have any comments

```
SELECT articles.title AS 'article with no comments' FROM articles
LEFT JOIN comments ON articles.id = comments.article_id
WHERE comments.article_id IS NULL;
```

4.1)Write a query to select all articles which do not have any comments (Do using subquery also)

```
SELECT title
FROM articles
WHERE id NOT IN (SELECT article_id FROM comments);
```

```
Travel Plans
Travel places
```

5 Write a query to select article which has maximum comments

```
SELECT articles.title, count(comments.article_id) AS commentCount
FROM articles, comments
WHERE articles.id = comments.article_id
GROUP BY comments.article_id
```

```
HAVING commentCount = (
  SELECT count(comments.article_id) AS count
  FROM articles, comments
  WHERE articles.id = comments.article_id
  GROUP BY comments.article_id
  ORDER BY count DESC
  LIMIT 1
);
```

```
 Future in      2
 space
```

6 Write a query to select article which does not have more than one comment by the same user (do this using left join and group by)

```
SELECT articles.title AS 'article (having not more than one comment from same user)'
FROM articles LEFT JOIN comments ON articles.id = comments.article_id
GROUP BY articles.title HAVING COUNT(comments.user_id) = COUNT(DISTINCT comments.user_id);
```

```
Future in space
Historic Places
New Technologies
Travel places
Travel Plans
Wild Adventures
```