



# Introduction to SQL














Somkiat

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Somkiat Puisungnoen

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...
22 Pending Items



Intro

Software Craftsmanship


Software Practitioner at สยามชำนาญกิจ พ.ศ. 2556



Agile Practitioner and Technical at SPRINT3r



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Life Event



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Somkiat Puisungnoen

15 mins · Bangkok ·

▾

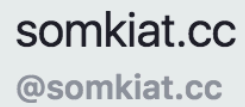
Java and Bigdata

...

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SQL

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## Posts

## Videos

## Photos



**+ Add a Button**

**<https://github.com/up1/course-sql>**



# Workshop



# Relationships



# Relationship



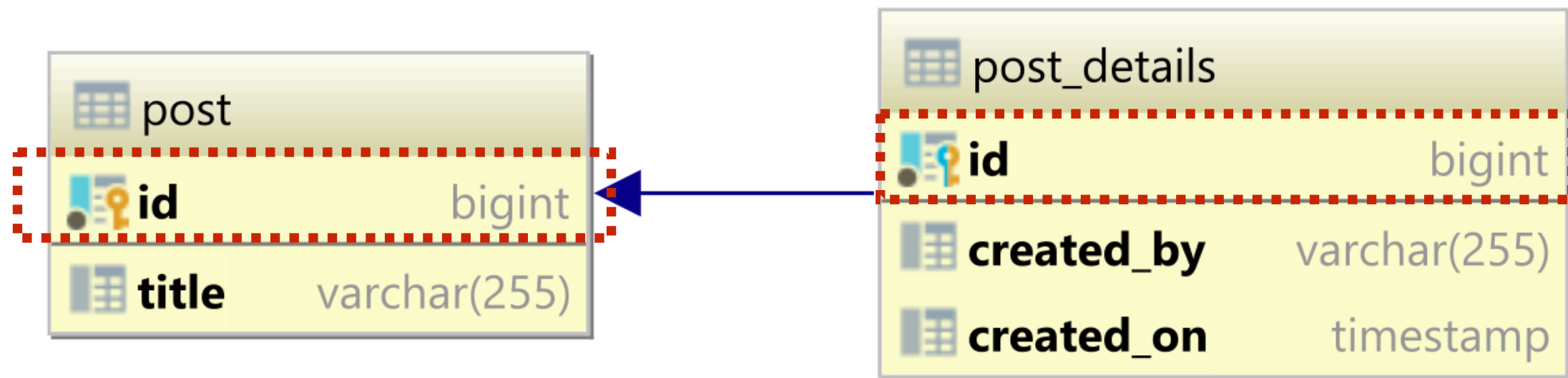


# Types of Relationship

One-to-One  
One-to-Many  
Many-to-Many



# One-to-One



# One-to-One

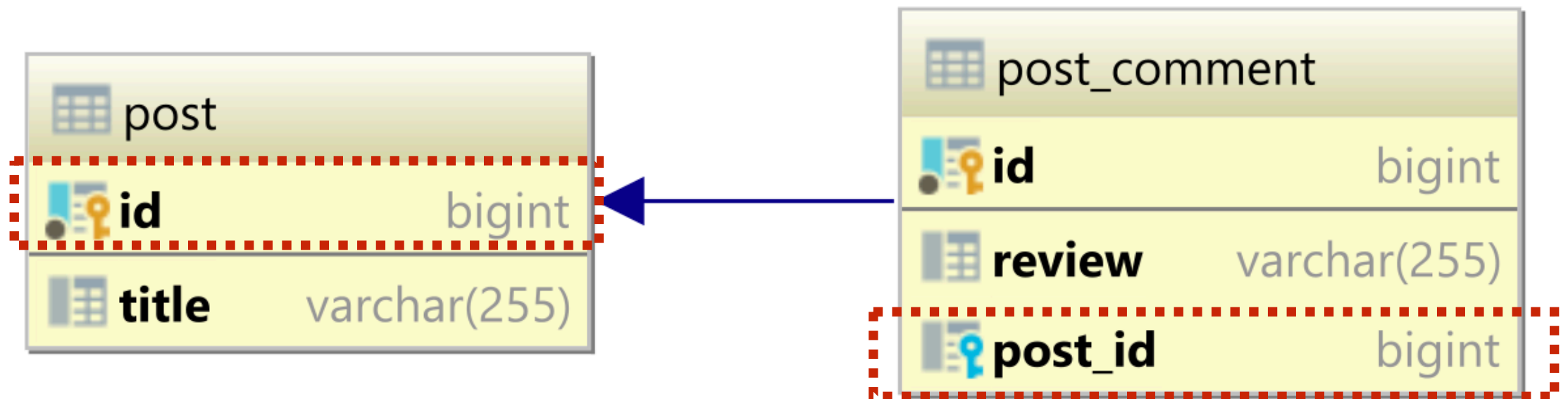
Primary key (PK)



Foreign key (FK)



# One-to-Many

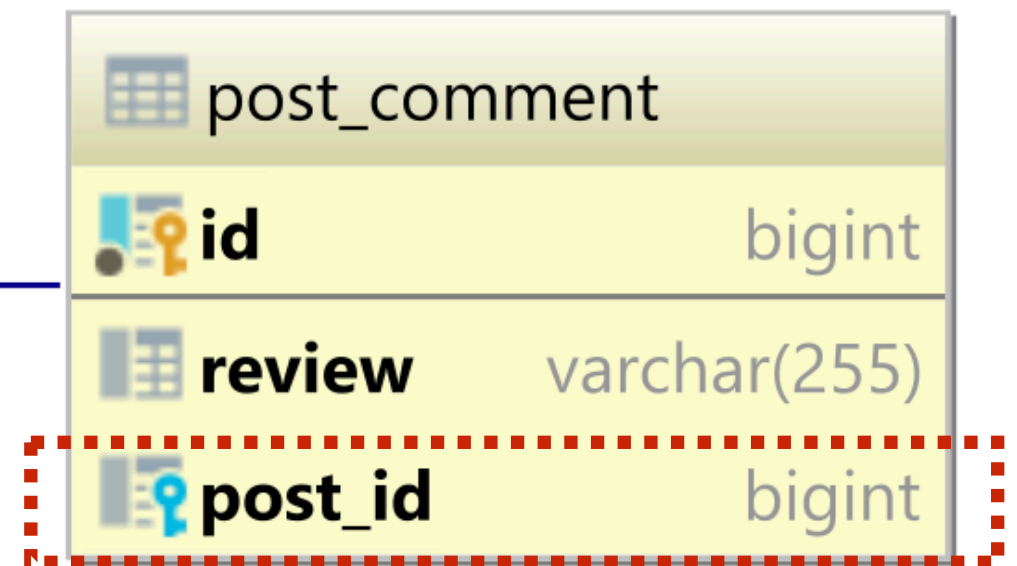


# One-to-Many

Primary key (PK)



Foreign key (FK)



# Many-to-Many



# Many-to-Many

Primary key (PK)

Primary key (PK)



Foreign key (FK)



# Many-to-Many

Primary key (PK)

Primary key (PK)



Composite Primary key (FK)





# Workshop with relationship



# One-to-One

## Post and Post\_detail table

```
CREATE TABLE post(  
    id bigint PRIMARY KEY,  
    title varchar(255)  
);
```

```
CREATE TABLE post_details(  
    id bigint PRIMARY KEY,  
    created_by varchar(255),  
    created_on timestamp  
);
```



# One-to-One

## Add relationship

```
ALTER TABLE  
  post_details  
ADD CONSTRAINT  
  fk_post_details_id  
FOREIGN KEY (id) REFERENCES post;
```



# One-to-Many

## Post and Post\_comment table

```
CREATE TABLE post(  
    id bigint PRIMARY KEY,  
    title varchar(255)  
);
```

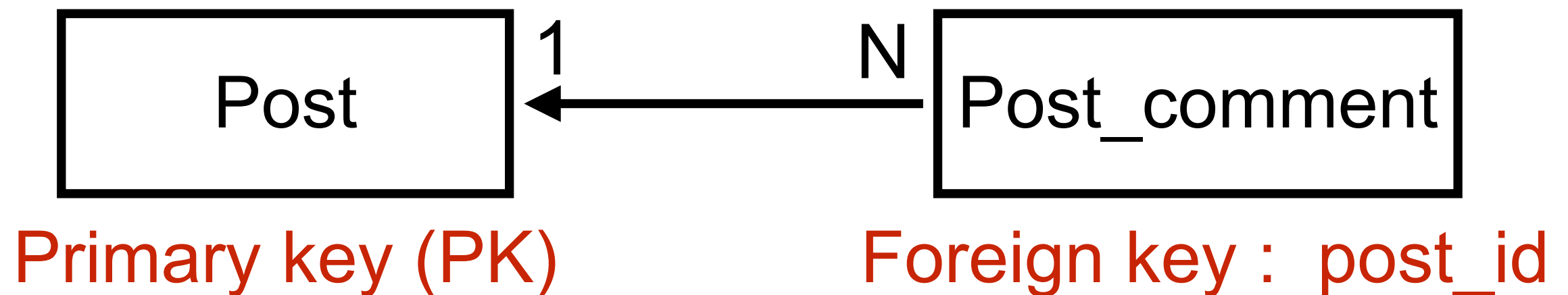
```
CREATE TABLE post_comment(  
    id bigint PRIMARY KEY,  
    review varchar(255),  
    post_id bigint NOT NULL  
);
```



# One-to-Many

## Add relationship

```
ALTER TABLE  
  post_comment  
ADD CONSTRAINT  
  fk_post_comment_post_id  
FOREIGN KEY (post_id) REFERENCES post;
```



# Many-to-Many

## Post, Tag, Post\_tag table

```
CREATE TABLE post(  
    id bigint PRIMARY KEY,  
    title varchar(255)  
);
```

```
CREATE TABLE tag(  
    id bigint PRIMARY KEY,  
    name varchar(255)  
);
```

```
CREATE TABLE post_tag(  
    post_id bigint NOT NULL,  
    tag_id bigint NOT NULL,  
    PRIMARY KEY(post_id, tag_id)  
);
```



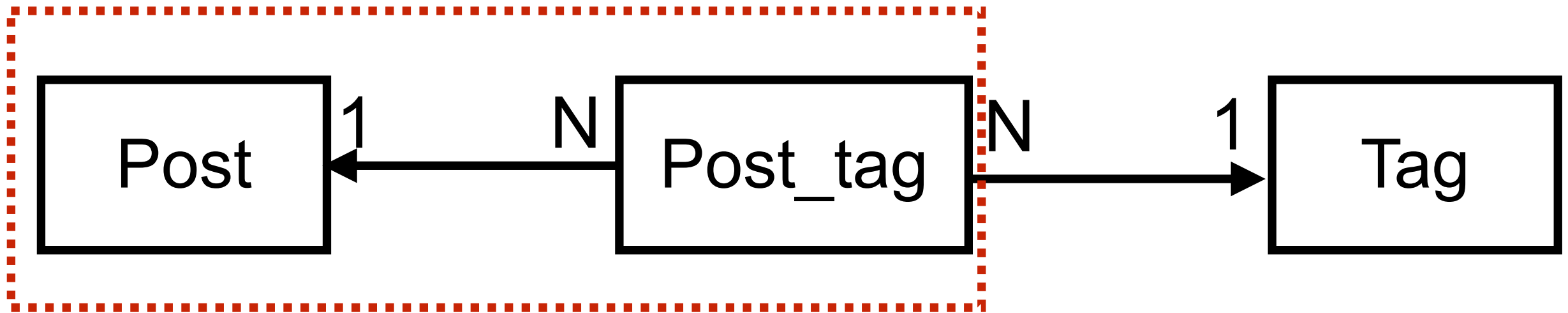
# Many-to-Many

Post, Tag, Post\_tag table



# Many-to-Many

Add relationship



Foreign key : post\_id

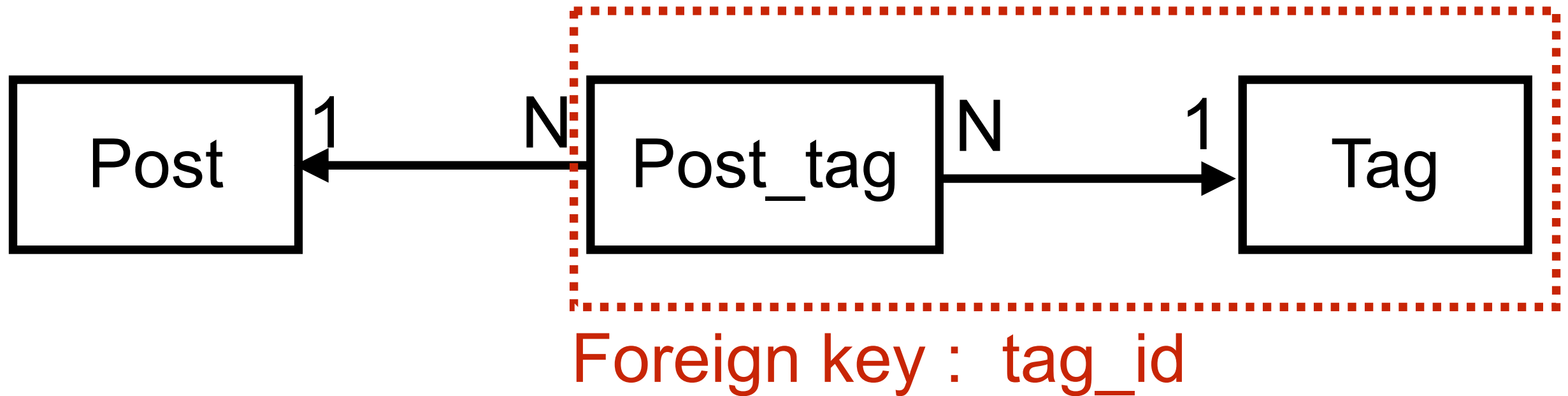
```
ALTER TABLE
  post_tag
ADD CONSTRAINT
  fk_post_tag_post_id
FOREIGN KEY (post_id) REFERENCES post;
```





# Many-to-Many

Add relationship

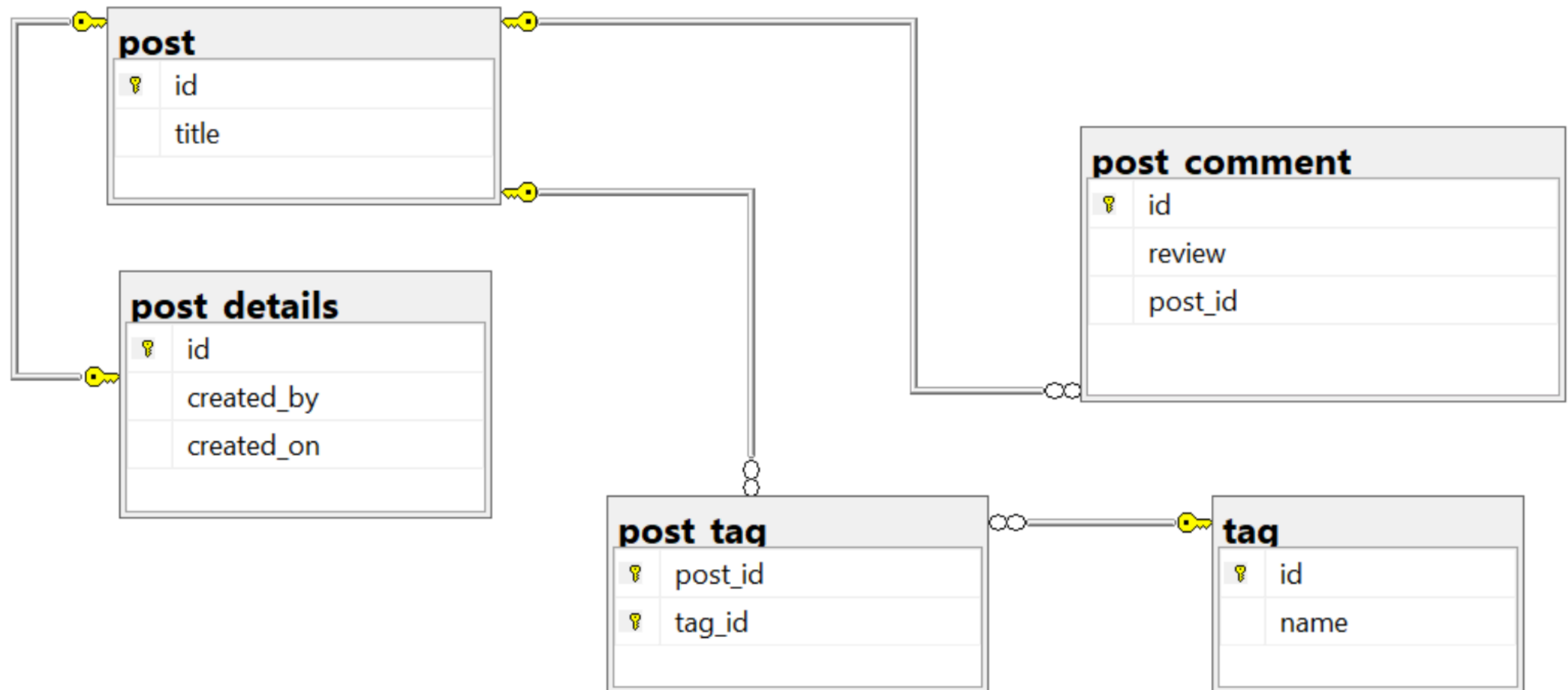


```
ALTER TABLE
  post_tag
ADD CONSTRAINT
  fk_post_tag_tag_id
FOREIGN KEY (tag_id) REFERENCES tag;
```



# Create Database Diagram

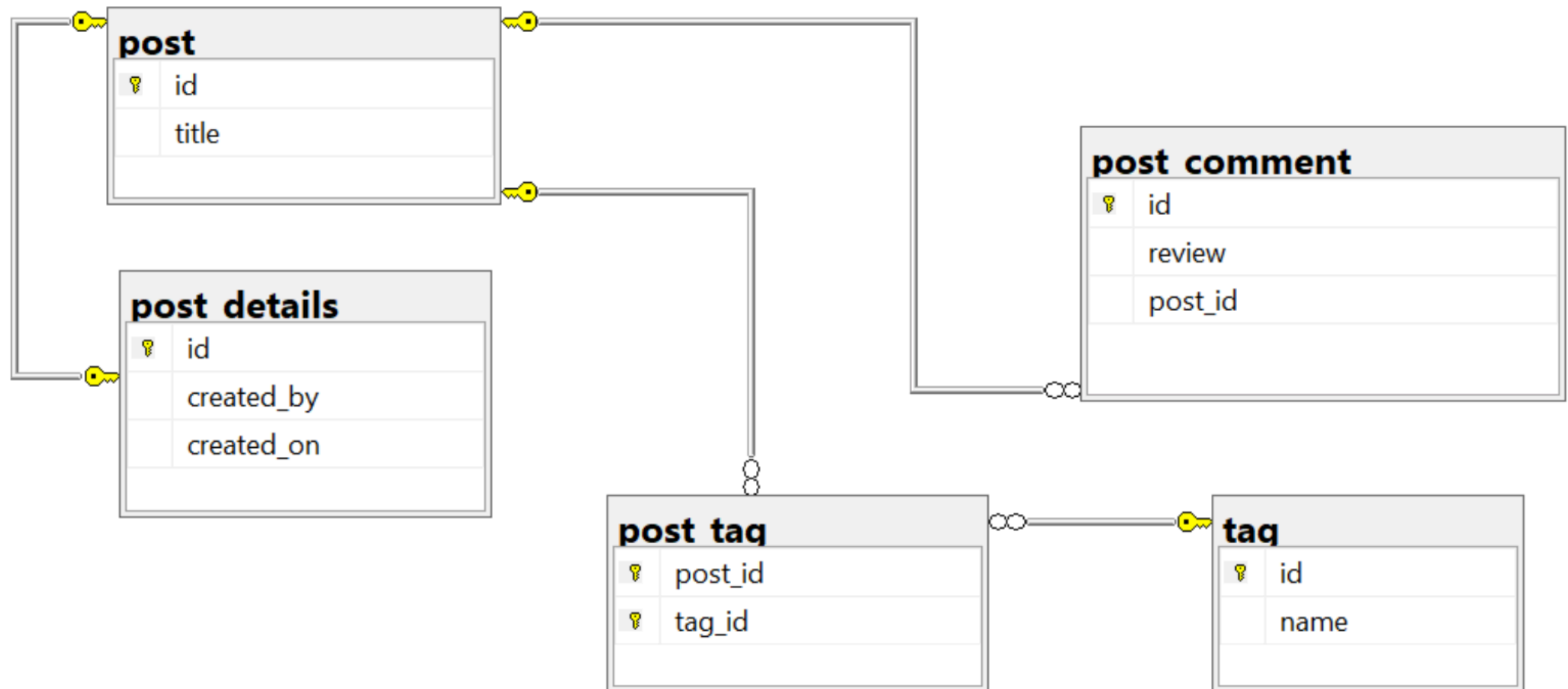
## Feature in MS SQL Server



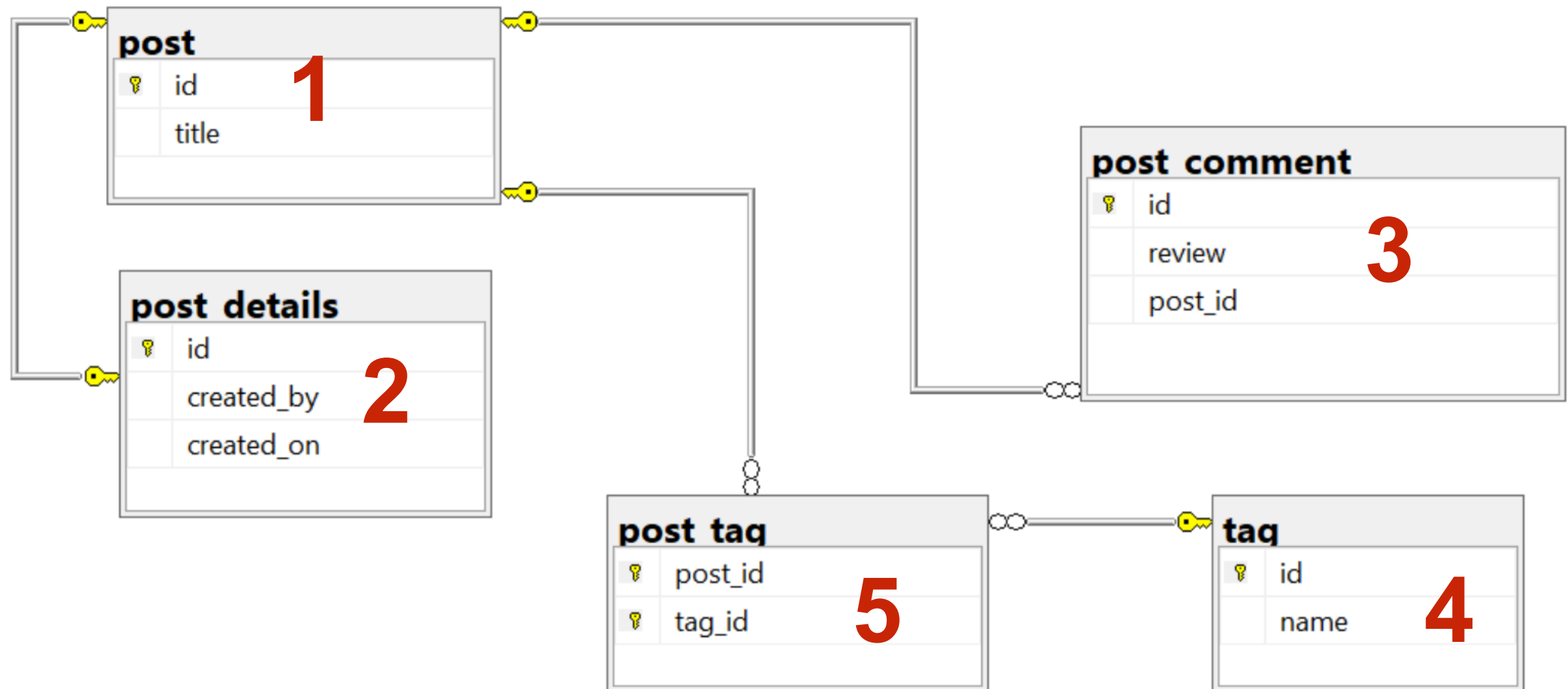
# Insert data into all tables



# How to insert data into tables ?



# Insert data into all tables



# **Insert data into all tables**

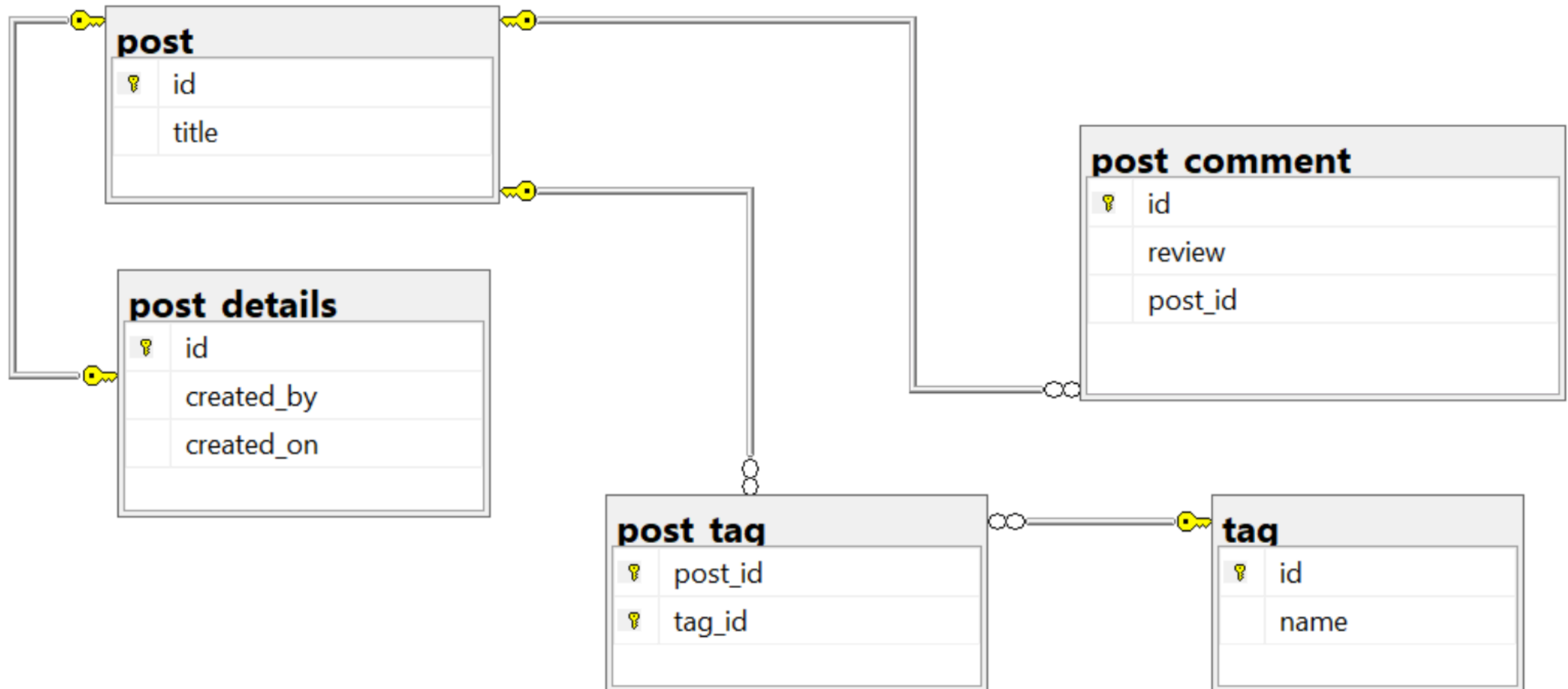
**workshop-post/02-insert-data.txt**



# Select data from tables ?

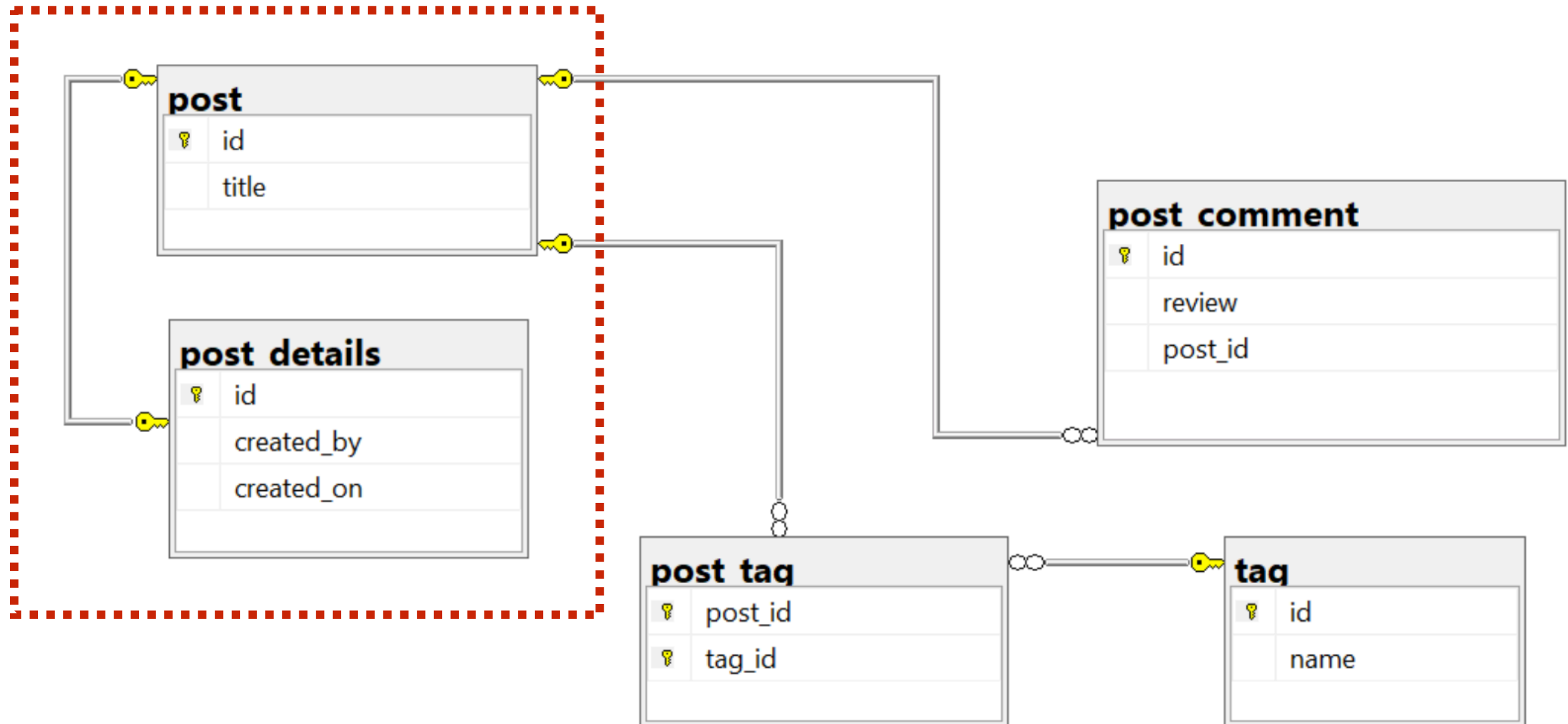


# Select data from tables ?

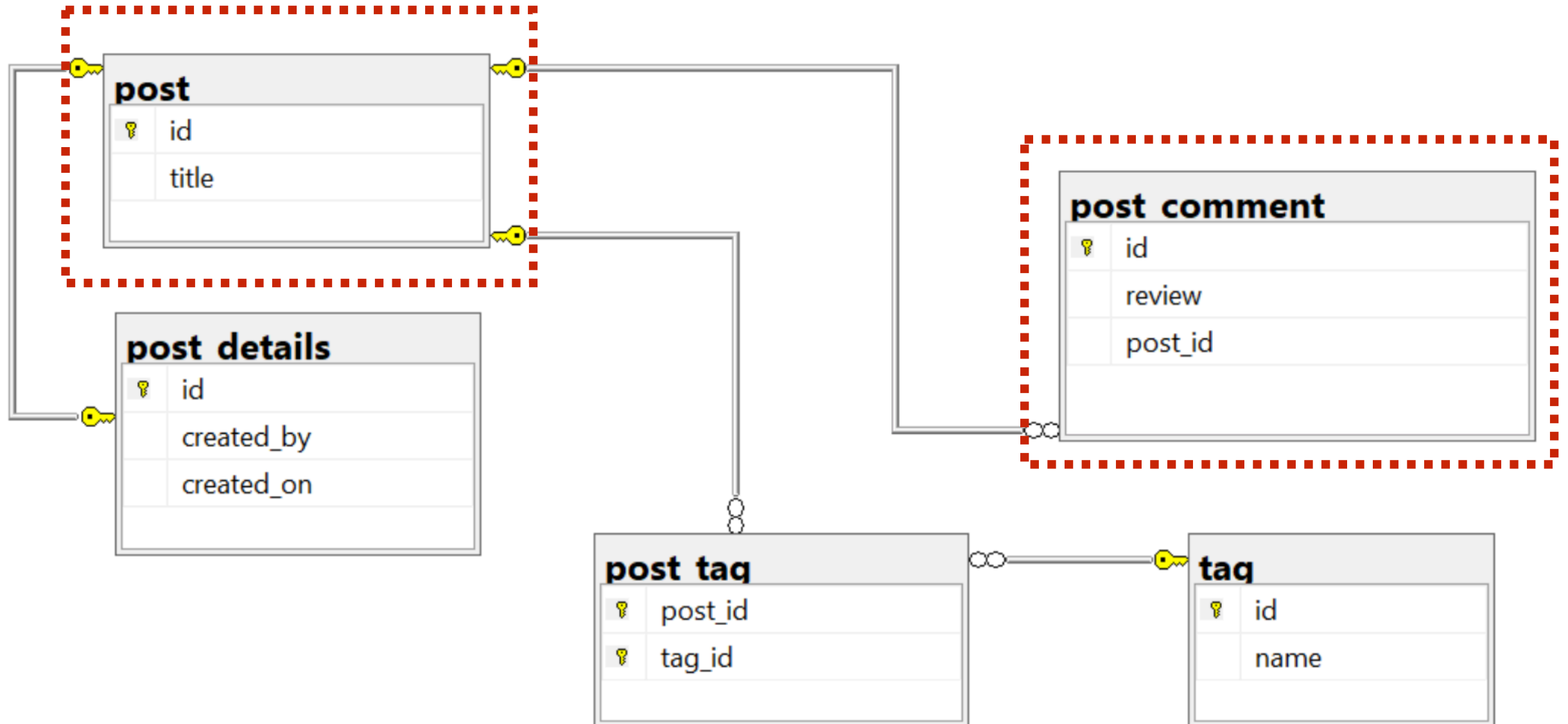




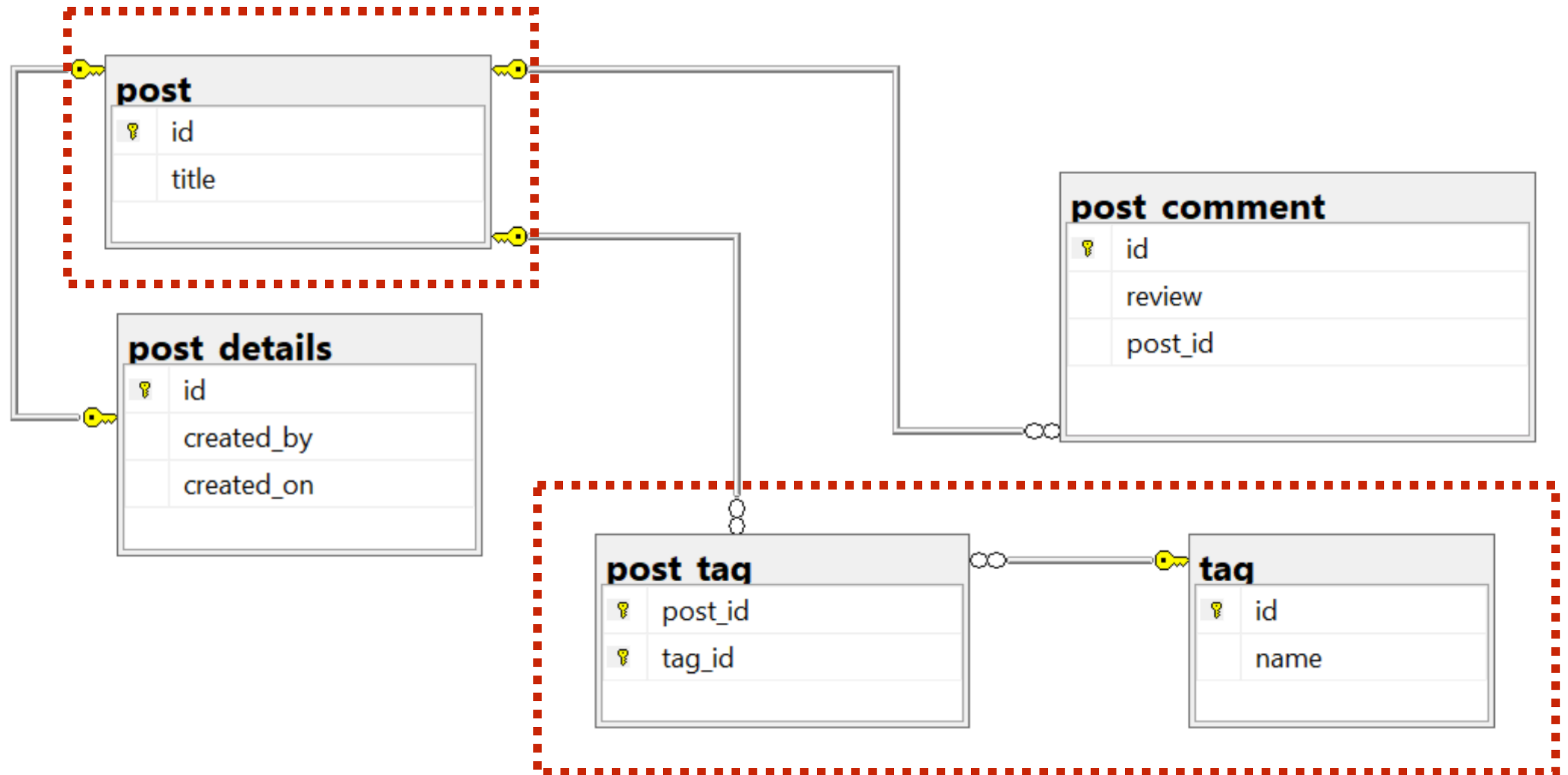
# ดึงข้อมูล post ที่มี detail



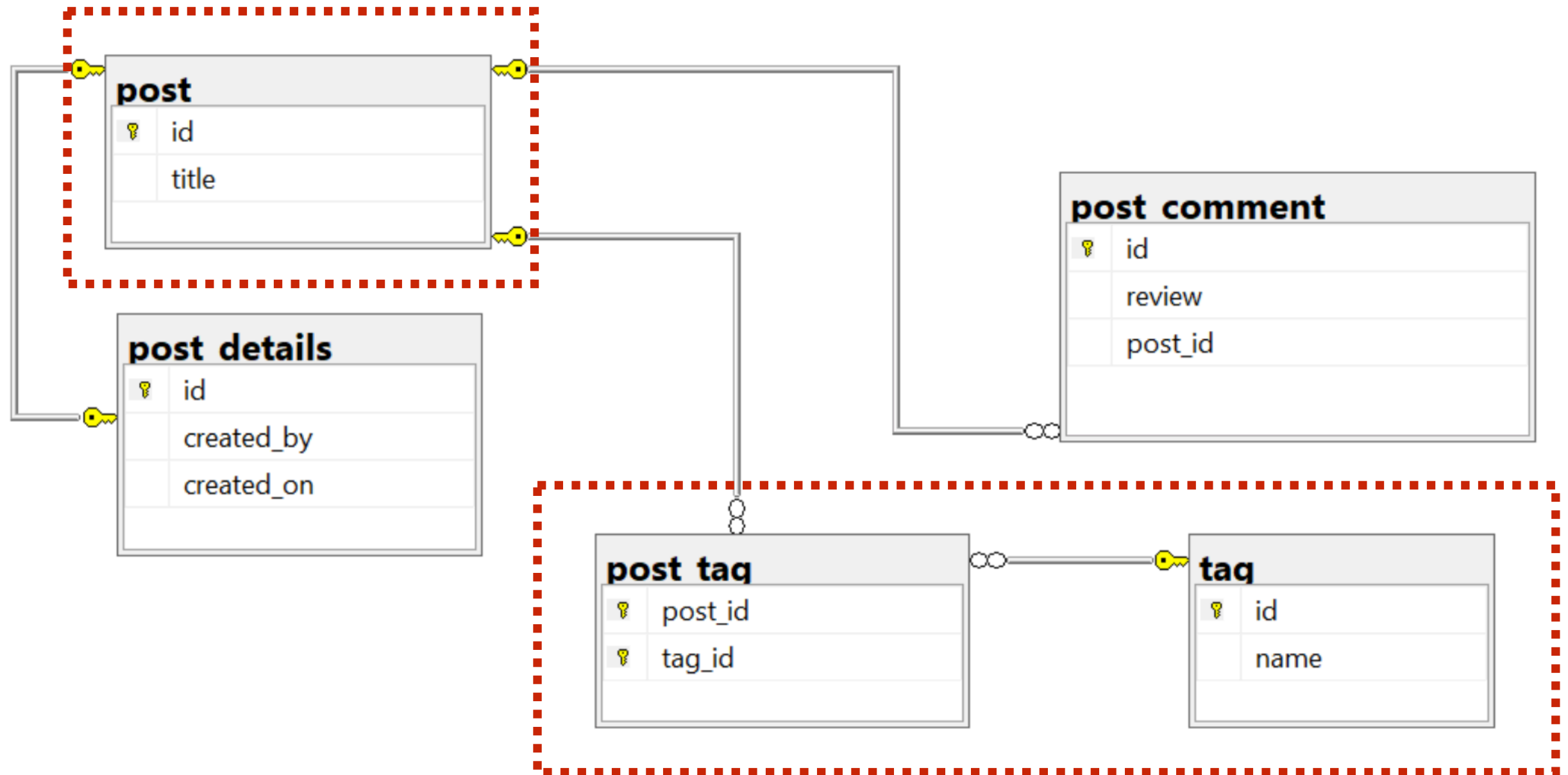
# ดึงข้อมูล post ที่มี comment



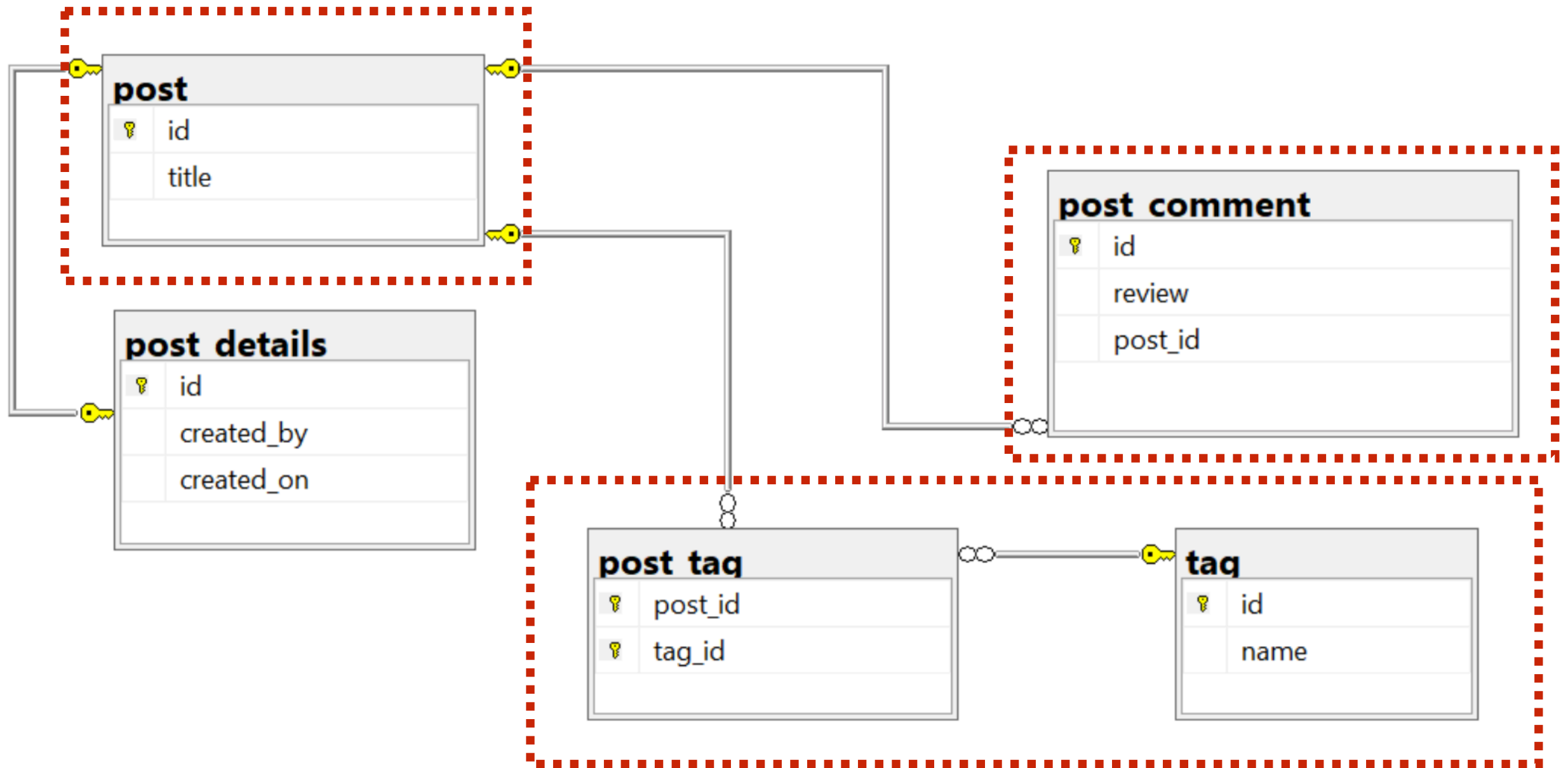
# ดึงข้อมูล post ที่มี tag



# ดึงข้อมูล tag ที่ใช้ใน post



# ดึงข้อมูล comment ของ post ใน tag 1



# Select data from tables ?

workshop-post/02-select-data.txt

