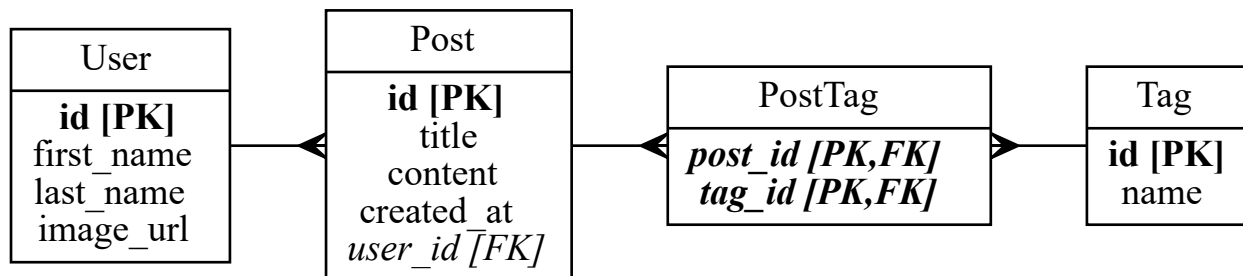


# Blogly

## Part Three: Add M2M Relationship

The last part will be to add a “tagging” feature.

### Tag Model



The site will have a table of tags — there should be an SQLAlchemy model for this:

- **id**
- **name**, (unique!)

There should also be a model for **PostTag**, which joins together a **Post** and a **Tag**. It will have foreign keys for the both the **post\_id** and **tag\_id**. Since we don't want the same post to be tagged to the same tag more than once, we'll want the combination of post + tag to be unique. It also makes sense that neither the **post\_id** nor **tag\_id** can be null. Therefore, we'll use a “composite primary key” for this table— a primary key made of more than one field. You may have to do some research to learn how to do this in SQLAlchemy.

Add relationships so you can see the **.tags** for a post, and the **.posts** for a tag.

**STOP** and play around with this feature in **IPython** before continuing.

### User Interface

#### Add Tag

## Create a tag

Name

<\_images/add-tag.png>

#### Edit Tag

# Edit a tag

Name

Fun

CancelEdit

<\_images/edit-tag.png>

## List Tag

# Tags

- Fun
- Even More
- Bloop

Add Tag

<\_images/list-tags.png>

## Show Tag

# Fun

- First Post!
- Yet Another Post

EditDelete

<\_images/show-tag.png>

## Show Post With Tags

# First Post!

Oh, hai.

By Joel Burton on Sun Jan 1 2017, 10:30 AM

Tags: FunEven MoreBloopZope

CancelEditDelete

<\_images/post-w-tags.png>

## Add Post With Tags

# Add Post for Joel Burton

Title

Content

☐ Fun  
☐ Even More  
☐ Bloop  
☐ Zope

Cancel

Add

[<\\_images/add-post-w-tags.png>](#)

## Edit Post With Tags

### Edit Post

Title

Post Content

☒ Fun  
☐ Even More  
☐ Bloop  
☐ Zope

Cancel

Edit

[<\\_images/edit-post-w-tags.png>](#)

## Add Routes

### GET */tags*

Lists all tags, with links to the tag detail page.

### GET */tags/[tag-id]*

Show detail about a tag. Have links to edit form and to delete.

### GET */tags/new*

Shows a form to add a new tag.

### POST */tags/new*

Process add form, adds tag, and redirect to tag list.

### GET */tags/[tag-id]/edit*

Show edit form for a tag.

### POST */tags/[tag-id]/edit*

Process edit form, edit tag, and redirects to the tags list.

### POST */tags/[tag-id]/delete*

Delete a tag.

## Update Routes for Posts

Update the route that shows a post so that it shows all the tags for that post.

Update the routes for adding/editing posts so that it shows a listing of the tags and lets you pick which tag(s) apply to that post. (You can use whatever form element you want here: a multi-select, a list of checkboxes, or any other way you can solve this.)

### Hint

#### Getting Multiple Values From Form

The normal way to get a value from a form, `request.form['key']`, only returns *one* value from this form. To get all of the values for that key in the form, you'll want to investigate **`.getlist`**.

## Further Study

### Update Tag Add/Edit Forms

Edit these forms to let you pick posts for this tag.

#### Edit Tag With Posts

### Create a tag

Name

- ☐ First Post!
- ☐ Yet Another Post
- ☐ Flask Is Awesome!

[<\\_images/add-tag-with-posts.png>](#)

#### Edit Tag With Posts

### Edit a tag

Name

- ☒ First Post!
- ☒ Yet Another Post
- ☐ Flask Is Awesome!

[<\\_images/edit-tag-with-posts.png>](#)

If you made a homepage, make this show tags, too:

# Blogly Recent Posts

## Flask Is Awesome!

Flask is a lovely framework for building cool things.

By Joel Burton on Sun Feb 4 2018, 11:30 AM

## Yet Another Post

Here is the content.

By Joel Burton on Sun Feb 4 2018, 9:30 AM

Tags: [Fun](#)

## First Post!

Oh, hai.

By Joel Burton on Sun Jan 1 2017, 10:30 AM

Tags: [Fun](#) [Even More](#) [Bloop](#) [Zope](#)

[<\\_images/homepage-w-tags.png>](#)

## Add Tests

Add tests for your most critical pages.

## Solution

[Our Solution for Part Three <solution/three.html>](#)