

## Part Three: Add M2M Relationship

## Tag Model

## User Interface

## Add Routes

## Update Routes for Posts

## Further Study

## Update Tag Add/Edit Forms

## Add Tests

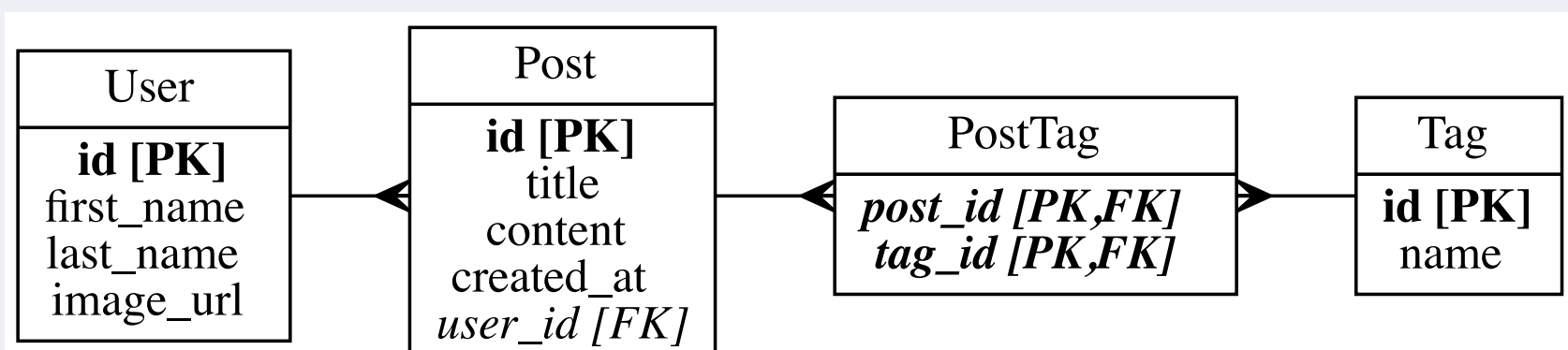
## Solution

## 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

Cancel

Add

## Edit Tag

### Edit a tag

Name

Cancel

Edit

## List Tag

### Tags

• Fun

• Even More

• Bloop

Add Tag

## Show Tag

### Fun

• First Post!

• Yet Another Post

Edit

Delete

## Show Post With Tags

### First Post!

Oh, hai.

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

Tags: 

Fun

Even More

Bloop

Zope

Cancel

Edit

Delete

## Add Post With Tags

### Add Post for Joel Burton

Title

Content

☐ Fun

☐ Even More

☐ Bloop

☐ Zope

Cancel

Add

## Edit Post With Tags

### Edit Post

Title

Post Content

☒ Fun

☐ Even More

☐ Bloop

☐ Zope

Cancel

Edit

## 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!

Cancel

Add

## Edit Tag With Posts

### Edit a tag

Name

☒ First Post!

☒ Yet Another Post

☐ Flask Is Awesome!

Cancel

Edit

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

## Add Tests

Add tests for your most critical pages.

## Solution

[Our Solution for Part Three](#)