LECTURE 22: RELATIONS AND ERROR PAGES

Code based on:
https://github.com/miguelgrinberg/microblog/tree/v0.5 and
https://github.com/miguelgrinberg/microblog/tree/v0.7

LAST LECTURE

- What is a Wiki?
- Implementation
  - Displaying wiki pages
  - Submit pages
  - Index page listing wiki pages
- We introduced user authentication

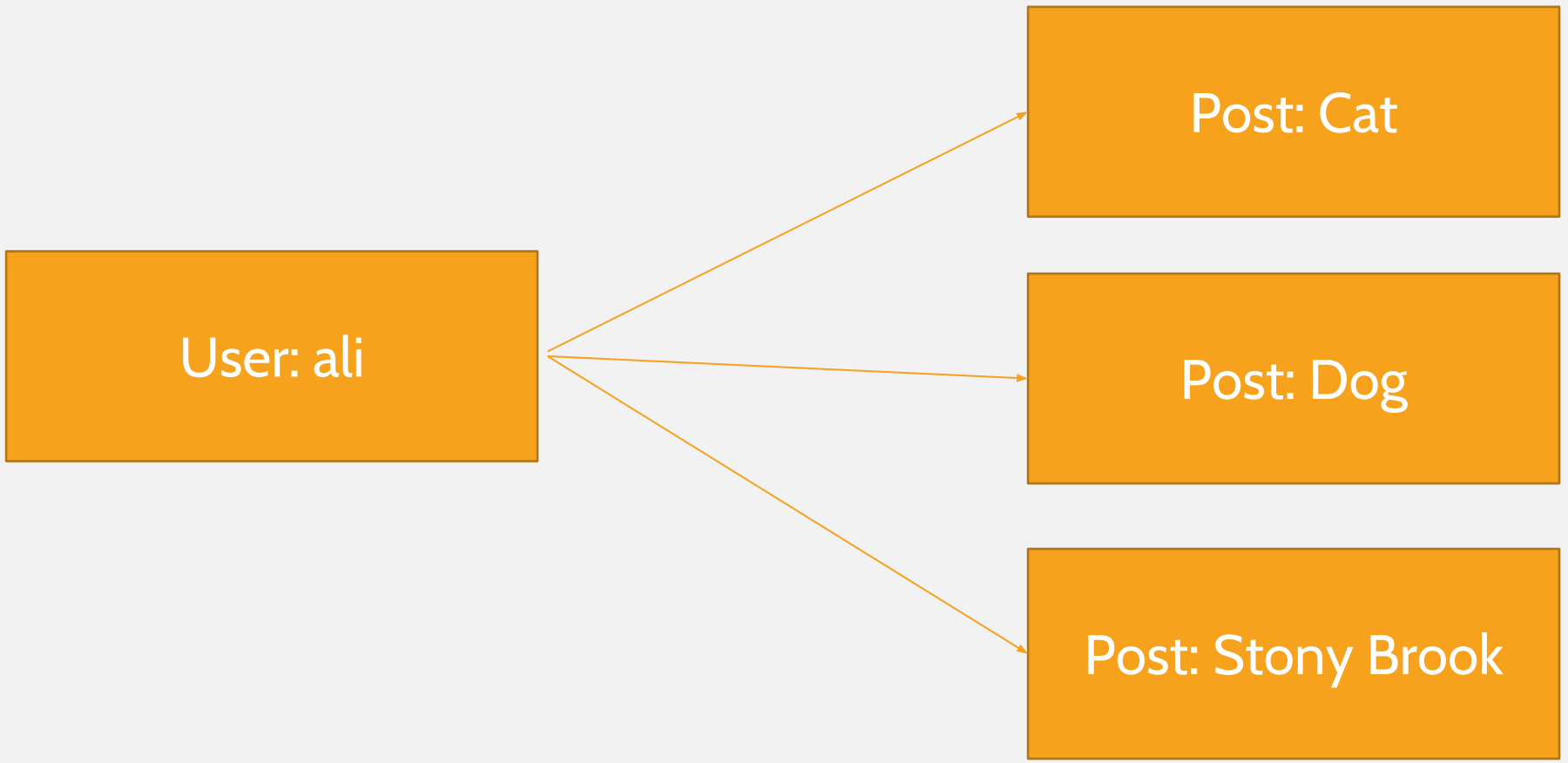
AN ALTERNATIVE WAY OF RUNNING FLASK APPS

- We have a new file named flask_cmd.py
- On Mac/Unix:
  - export FLASK_APP=wiki.py
  - python3 flask_cmd.py run
- On Windows:
  - set FLASK_APP=wiki.py
  - python3 flask_cmd.py run

THIS LECTURE

- Relations
  - Who is the author for this post?
  - One to many relationship
  - One user is the author of many posts

ONE TO MANY RELATIONSHIP



HOW TO IMPLEMENT ONE-TO-MANY RELATIONSHIP

- In User:
  - posts = db.relationship('Post', backref='author', lazy='dynamic’)
  - Backref defines a new property in Post class (i.e., post.author)
- In post:
  - user_id = db.Column(db.Integer, db.ForeignKey('user.id'))

EXTRA PAGE: USER

Get the user

```
@app.route('/user/<username>')
@login_required
def user(username):
    user = User.query.filter_by(username=username).first_or_404()
    posts = user.posts
    return render_template('user.html', user=user, posts=posts)
```

Get posts of this user

CHANGES IN SHOWPOST()

Get the author(remember the backref)

```
@app.route('/posts/<postid>')
def showpost(postid):
    if current_user.is_authenticated:
        current_post = Post.query.filter_by(id=postid)[0]
        author = current_post.author #User.query.filter_by(id=current_post.user_id).first_or_404()
        return render_template('showpost.html', title='Show Post', post=current_post, author=author)
    return render_template('notloggedin.html')
```

Pass the author

EXTRA TEMPLATES

- user.html: To show user information
- Also, modifications in showpost.html

CUSTOM ERROR PAGES

- HTTP Status codes
  - It's a long list
  - https://en.wikipedia.org/wiki/List_of_HTTP_status_codes
- More popular ones 200(OK), 400(Bad Request), 403(Forbidden), 404(Not Found), 500(Internal Server Error)

CHANGES IN ROUTES.PY

Error code

```python
@app.errorhandler(404)
def not_found_error(error):
    return render_template('404.html'), 404

@app.errorhandler(500)
def internal_error(error):
    db.session.rollback()
    return render_template('500.html'), 500
```

EXTRA TEMPLATES FOR CUSTOM ERROR PAGES

- 404.html
- 500.html

FIN!