

Hungquery: CRUD web application with (BeautifulSoup) python + Flask + PostgreSQL + Falcon



Flask



PostgreSQL



heroku

MOTIVATION: CRUD APPLICATION

- The root of all information technology is **data storage and data transfer**.
- At the core, all apps are doing the same thing: **creating new data, retrieving (or reading) data, updating data, and destroying (or deleting) data**.

REAL WORLD EXAMPLE: CRUD APP



- Take your Instagram feed for example
1. You can make a new post (**c**reate)
 2. You can see a list of other people's post (**r**ead)
 3. You can update a post (**u**pdate)
 4. Finally, you can delete a post (**d**ele~~t~~e)

Hungquery: CRUD app functionality



0. Scrape recipes and store in DB.
1. Save new recipes (**c**reate)
2. Search DB to read existing recipes (**r**ead)
3. Make changes to a recipe (**u**ppdate)
4. Finally, remove unwanted recipes (**d**eleate)

Hungquery: High-level steps



0. Scrape recipes and store in Postgres DB.
1. Upload recipe data to DB.
2. Connect Flask app to DB.
3. UI Design.
4. SQL queries.
5. Connect DB to Falcon to create live plotly charts.

Hungquery: Steps

Scrape recipes and store in Postgres DB



recipe_name	time	url	special_diet	blurb	course_type	group_by_time
Liverwurst Sanc	3	https://www.sir		Classic liverw	lunch	low
Cinnamon Toast	3	https://www.sir		Cinnamon toast!	breakfast	low
Tomato Salad wi	4	https://www.sir	Gluten-Free, Ve	Fresh garden tc	lunch	low
Apple Peanut Bl	4	https://www.sir		Great for kids!	lunch	low
Omelette in a M	4	https://www.sir	Gluten-Free, Lc	Need an easy or	breakfast	low
How to Fry an E	4	https://www.sir		A perfectly fri	breakfast	low
Quick and Easy	5	https://www.sir	Gluten-Free, Ve	Simple white be	lunch	low
Quick and Easy	5	https://www.sir	Gluten-Free, Ve	Simple white be	lunch	low
Homemade Butter	5	https://www.sir		Making your owr	lunch	low

By Alienor and Kadar

Hungquery: Steps

Upload recipe data to DB.



Hungquery: Steps

Connect Flask app to DB and create routes



```
@app.route("/search_recipe", methods=['GET', 'POST'])
def SearchRecipe():
    if request.method == 'GET':
        return render_template('search_recipe.html')
    else:
        data = request.form
        print(data)
        # search_time = '' #user input
        sql = "SELECT recipe_name, time, url, special_diet, blurb, course_type FROM recipes Where time=" + data["search_time"] + " LIMIT 2 OFFSET 0"
        print(sql)
        res = engine.execute(sql)
        all_recipes = []
        for i in res:
            all_recipes.append({
                "recipe_name": i[0],
                "time": i[1],
                "url": i[2],
                "special_diet": i[3],
                "blurb": i[4],
                "course_type": i[5],
            })
        print(all_recipes)
        #return jsonify(data)
        return render_template('search_recipe.html', all_recipes=all_recipes
    )
```

By Alienor and Kadar

Hungquery: Steps

Connect Flask app to DB and create routes



```
@app.route("/addnew", methods=['GET', 'POST'])
def Addnew():
    if request.method == 'GET':
        return render_template('addnew.html')
    else:
        data = request.form

        sql = "INSERT INTO recipes(recipe_name, time, url, special_diet, blurb, course_type, group_by_time)\"
        \"VALUES (' + data[\"Name\"] + '\", \" + data[\"Minutes\"] + \"\", \" + data[\"Link\"] + \"\", \" + data[\"SpecialDiets\"] + \"\", \" + data[\"blurb\"] + \"\", \" + data[\"Type\"] + \"\", \" + data[\"GroupbyTime\"] + \"');\"
        engine.execute(sql)
        print(data)
        return "success"
```

Hungquery: Live Demo

Live Demo: search feature + add new recipe

<http://127.0.0.1:5000/>



By Alienor and Kadar

Hungquery: Steps

Connect DB to Falcon



- Falcon is a free and open-source SQL client with inline data visualization.
- Write SQL and Chart the Results.
- Create Live Datasets, so that when our DB updates, the charts and dashboards update as well.

Hungquery: CRUD APP

Future Consideration + QUESTION?



- Smarter search; more filters.
- Search again.
- Better UI Design.
- Incorporate ML.

The screenshot shows a web browser at the address 127.0.0.1:5000/search_recipe. The page has a purple header with the Hungquery logo and navigation links. Below the header, there's a search bar with a 'Search' button. A table titled 'Recipes' displays two entries for 'Kale Salad with Strawberries, Goat Cheese, and Pecans'. Each entry includes details like time, URL, special diet, summary, type, and edit/delete buttons. An 'Add New Recipe' button is in the top right of the table area. The footer shows the copyright notice: © 2020 Kadar Amek and Alienor Viollet.

Name	Time	URL	Special Diet	Summary	Type	Edit
Kale Salad with Strawberries, Goat Cheese, and Pecans	20	Click Here	Vegetarian	Enjoy this bright, cheery kale salad with sweet strawberries, creamy goat cheese, and crunchy pecans all spring and summer long! It keeps well, so it's perfect for a picnic or backyard cook-out.	lunch	Edit Delete
Kale Salad with Strawberries, Goat Cheese, and Pecans	20	Click Here	Vegetarian	Enjoy this bright, cheery kale salad with sweet strawberries, creamy goat cheese, and crunchy pecans all spring and summer long! It keeps well, so it's perfect for a picnic or backyard cook-out.	lunch	Edit Delete

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