

Team Ares

Lattice

What does it do?

- Combine multiple recipes into a single recipe
- Web app
- Search for recipes
- Upload recipes



UI Prototype




UI Prototype

Lattice - Cook Smart

http://www.lattice.com

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Ham Casserole ★★★★★

Added by Ares on April 19th, 2014

Tags: [Ham](#), [Dinner](#), [Entrée](#)

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Ingredients:

• Peeled and cubed potatoes	2 Cups	• Cubed, fully cooked ham	2 Cups
• Celery, chopped	2 Stalks	• Chopped green bell pepper	2 Tablespoons
• Large carrot, sliced	1	• Chopped onion	2 Teaspoons
• Water	3 Cups	• Butter	1/4 Cup
• Butter	1 Teaspoon	• Ground black pepper	1/8 Teaspoon
• All-purpose flour	3 Tablespoons	• Shredded cheddar cheese	1 Cup
• Milk	1 Cup	• Dry bread crumbs	1/2 Cup
• Salt	1/3 Teaspoon		

Equipment:

Steps:

	Attention Required?	Time:
1) Preheat oven to 350 degrees F (175 degrees C)	<input type="radio"/> All <input type="radio"/> Some <input checked="" type="radio"/> None	15 mins
2) Place potatoes, celery, and carrot in a large pot and cover with water	<input checked="" type="radio"/> All <input type="radio"/> Some <input type="radio"/> None	3 mins
3) Bring to a boil	<input type="radio"/> All <input type="radio"/> Some <input checked="" type="radio"/> None	5 mins
4) Reduce heat to medium-low and simmer until tender	<input type="radio"/> All <input type="radio"/> Some <input checked="" type="radio"/> None	20 mins
5) Drain and transfer to a 2-quart baking dish	<input checked="" type="radio"/> All <input type="radio"/> Some <input type="radio"/> None	3 mins

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Add New Recipe

Title:

Image (optional): [Browse](#)

Servings:

Tags:

Ingredients:

Amount	Unit?	Description
<input type="text" value="1"/>	<input type="text" value="lb"/>	<input type="text" value="Spaghetti noodles"/>

[Add Ingredient](#)

Steps:

1) Description

Attention: ☐ ? ☐ All ☐ Some ☒ None

Prerequisite Steps: ☐ ? ☐ - ☐ Add

Equipment: [Add Equipment](#)

Time: min ☐ hr

2) Description

Attention: ☐ ? ☐ All ☒ Some ☐ None

Prerequisite Steps: ☐ ? ☐ 1 ☐ Add

Equipment: [Add Equipment](#)

Time: min ☐ hr

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Your Kitchen

Burners: ☐ ☐ ☐ ☐ ☐


Ovens: ☐


Microwaves: ☐

Your Meal

Empty

Latest Recipes

 Ham Casserole ★★★★★

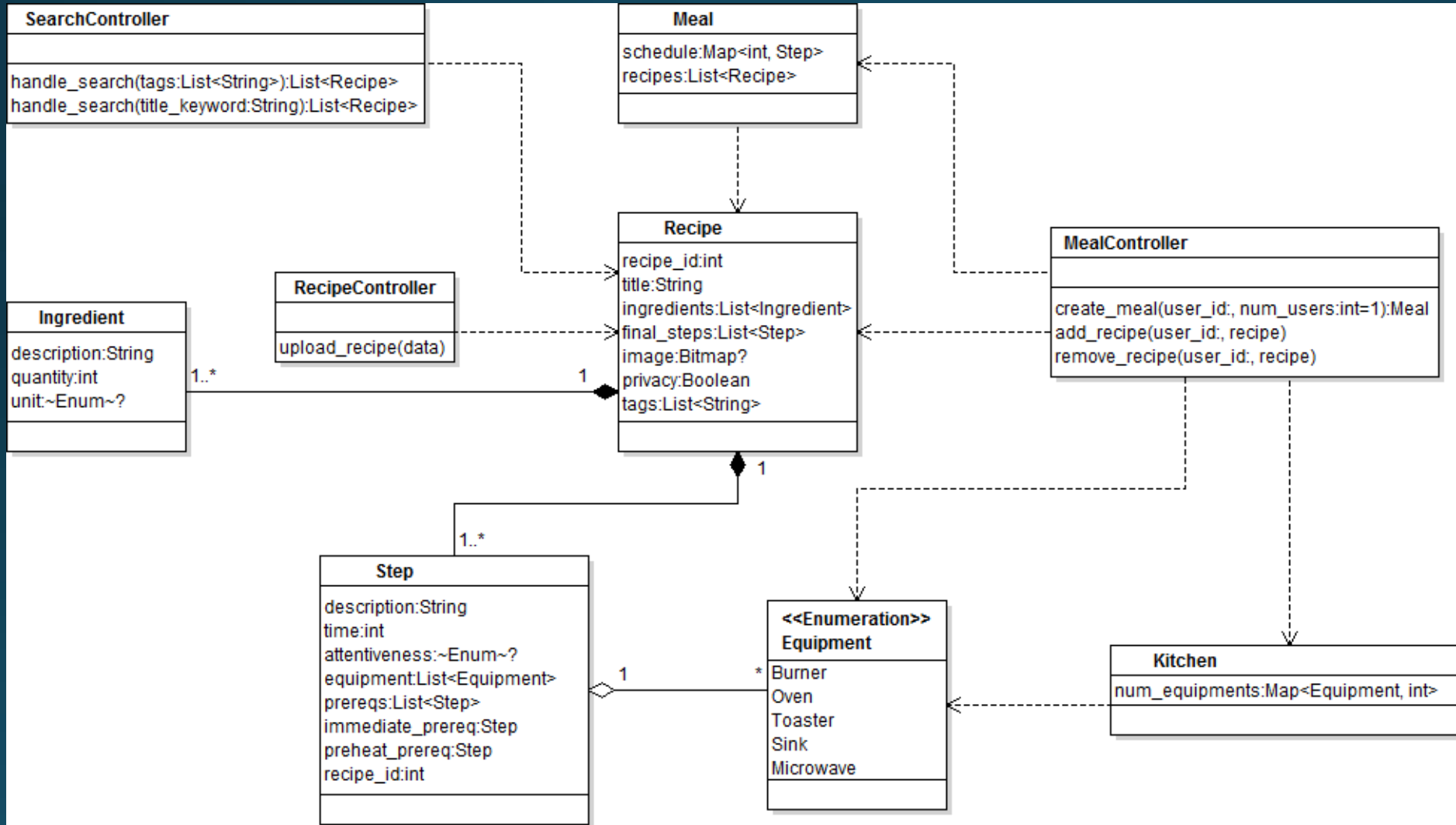
 Green Potatoes ★★★★★

Frameworks

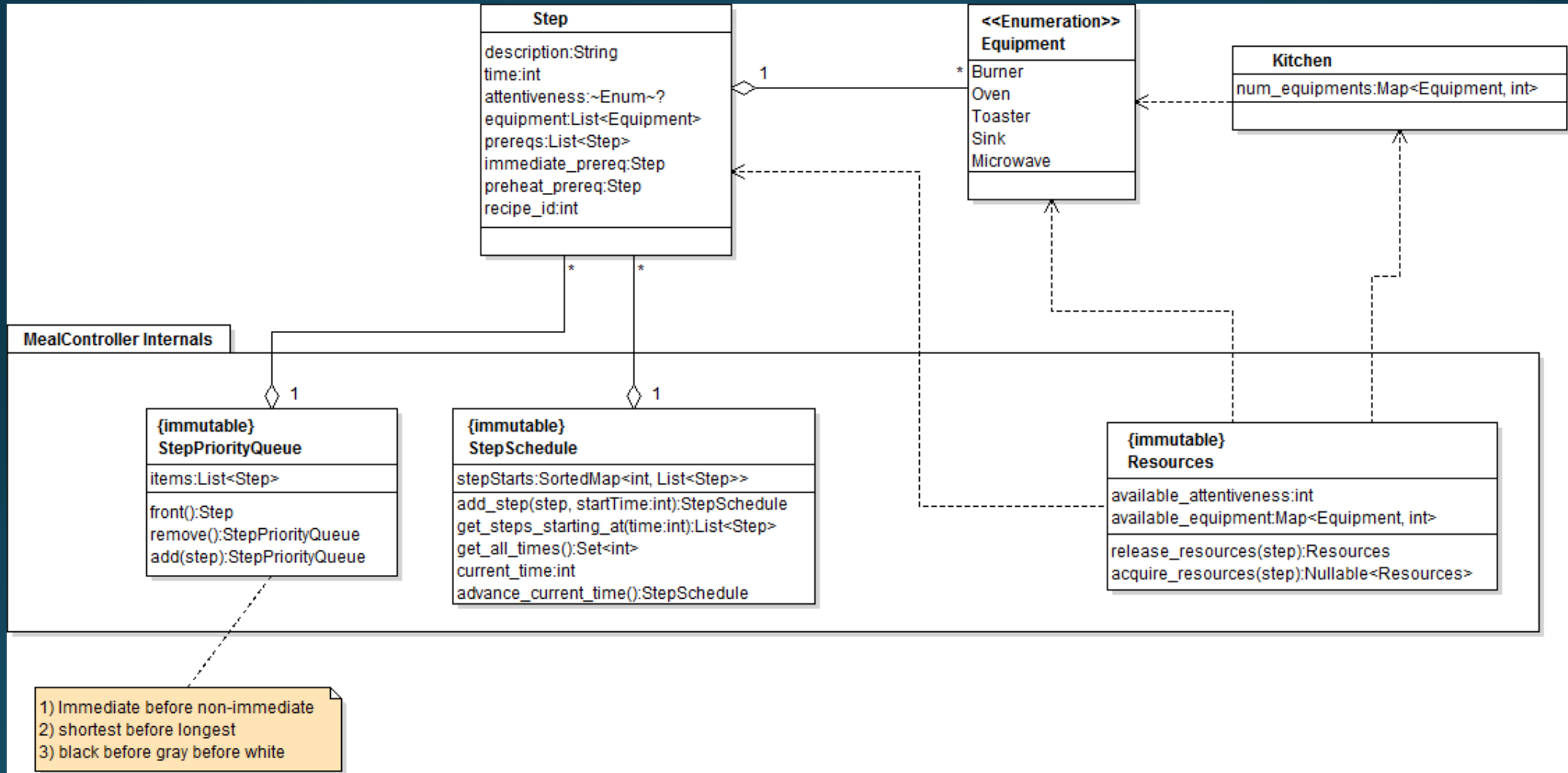
- Ruby on Rails
 - Integrated testing
- OpenID



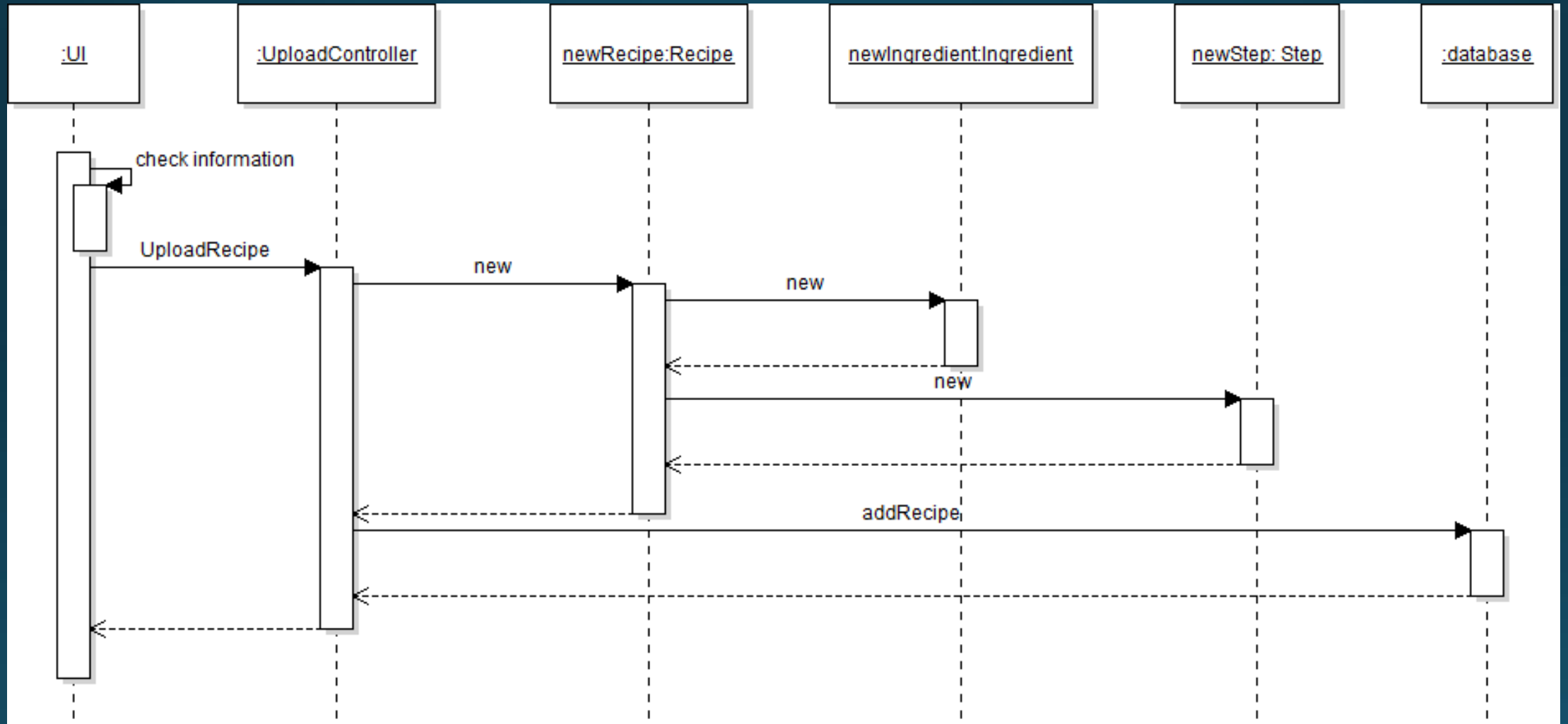
Class Diagrams



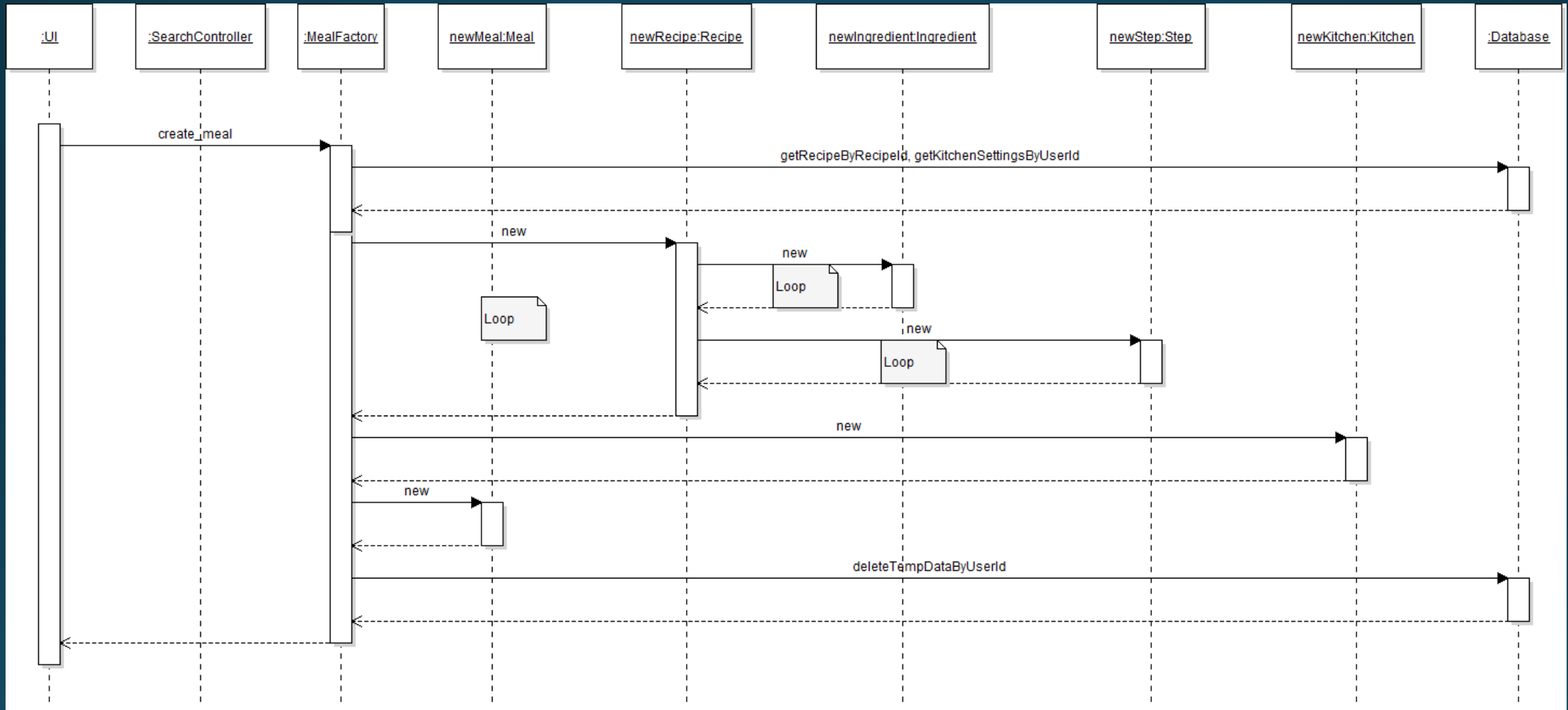
Class Diagrams



Sequence Diagrams



Sequence Diagrams



Implementation Risks

- No web dev experience, or Rails experience
- Still deciding between two algorithm approaches
 - The core of the whole project
- Usability of recipe input



The Algorithm

- The steps in a recipe form a DAG
- Steps claim resources, like stove burners
- Sweep line algorithm, moving backwards in time
- Two conflicting ideas on how to implement:
 - Recursive, pick best of every possible solution
 - Build a single good solution, where each decision is made based on static criteria that guarantee a correct solution

