



# Cookbook

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fall 2022 - senior project - proposal

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# Chapter 1

# introductions

## motivation & background


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- Cooking is one of the more valuable skills someone can learn
  - Often essential when you start living by yourself and want to save money or eat more healthily
- To cook you need recipes and recipes can be found online
  - There are various websites with online recipes, but the recipes are often behind a layer of information or backstory

# Chapter 1 - introductions

## motivation & background

[illegible]

Crispy Fried Chicken	RATING ★★★★★	SERVINGS 6	SHARE f t in p	PRINT 🖨
	Learn how to make perfect Fried Chicken with the crispiest, most flavorful crunchy outside with moist and juicy meat on the inside.			
Prep Time 5 MINUTES	Cook Time 30 MINUTES	Total Time 35 MINUTES		
<b>INGREDIENTS</b> <ul style="list-style-type: none"><li>• 6 chicken thighs</li><li>• 6 chicken drumsticks</li><li>• 3 cups <b>buttermilk</b></li><li>• 1/2 cup Buffalo Hot Sauce optional</li><li>• 2 teaspoons salt</li><li>• 1 teaspoon pepper</li></ul> <b>Dredging Mixture</b> <ul style="list-style-type: none"><li>• 3 cups all-purpose flour</li><li>• 1/2 cup cornstarch</li><li>• 1 tablespoon salt</li><li>• 1 tablespoon paprika</li><li>• 2 teaspoons onion powder</li><li>• 2 teaspoons garlic powder</li></ul>	<b>INSTRUCTIONS</b> <ol style="list-style-type: none"><li>1. In a large mixing bowl, whisk together buttermilk, hot sauce (optional, for added flavor), salt, and pepper in a mixing bowl. Add in chicken pieces. Cover the bowl with plastic wrap and refrigerate 4 hours.</li><li>2. When ready to cook, pour the vegetable oil in a skillet until it is about 3/4 inch deep. Heat to 350 degrees.</li><li>3. Prepare the breading by combining the flour, cornstarch, onion powder, garlic powder, oregano, basil, white pepper, cayenne pepper, paprika, and salt in a gallon sized resealable plastic bag or shallow dish. Mix it thoroughly.</li><li>4. Working one at a time, remove chicken pieces from buttermilk mixture. Shake it gently to remove the excess. Place it in the breading mix and coat thoroughly. Tap off the excess.</li><li>5. Place the breaded chicken into the 350 degree oil. Fry 3 or 4 pieces at a time. The chicken will drop the temperature of the oil so keep it as close to 350 degrees as possible. Fry each piece for 14 minutes, turning each piece about half way through, until the chicken reaches an internal temperature of 165 degrees F.</li><li>6. Remove from the oil and place on paper towels. Let them rest for at least 10 minutes before serving.</li></ol>			

<https://thestayathomechef.com/fried-chicken/>

# goals & significance

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Demonstrate skills learned throughout New York Tech:

- Proficiency in Java  
(CSCI 125, CSCI 185, CSCI 260)
- Proficiency in Python and data evaluation + web scraping  
(CSCI 436, CSCI 415, CSCI 426)
- Proficiency in designing and creating algorithms  
(CSCI 235, CSCI 335)
- Proficiency in database design and launching  
(CSCI 360)
- Ability to work according to SDLC  
(CSCI 380)

## Chapter 2

# specific aims

## must haves

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The must-haves of this projects are:

- Functional web scraper that works on  $\geq 3$  different websites, the goal is to get at least the ingredients and title of the recipes
- Database for recipe storage and unique ID for each recipe
- Driver program with read and write control for the database, with input sanitation
- Version control integration
- Cloud database hosting

## could haves

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The **could-haves** of this projects are:

- An additional optional module to help with meal prepping, with hardware integration with Arduino/Rpi
- Account system with password encryption and hashing
- A QR scanning system from the unique recipe ID such that we can easily look up the entries
- Machine learning for recipe and web scraping, to further expand the usable sites in the future
- Additional database features such as grocery list with online lookup and inventory management



Chapter 3

preliminary data

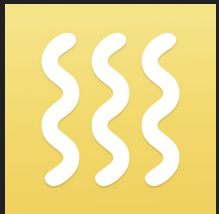
## existing systems

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### Tasty :

- Tasty is a web page/application that contains videos as well as an ingredient list and a recipe, it allows for customers to add their own personal take on the recipe and post how the turn out of their attempt to use said recipe was. They are partnered with Walmart for swift grocery shopping, they also have numerous advertisements and articles.



### Kitchen Stories :

- This website has a more personal approach to the art of cooking, it's a space where a number of experts publish their specific recipes alongside videos of them cooking as well as the recipe itself. It is a smaller community of people and has a more personal environment.



### Allrecipes :

- Yet another space which allows for customers to rate the recipe published. Each recipe is accompanied with nutritional information. This website also has numerous articles regarding cooking in general, as well as themed articles for different occasions.

## existing systems

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### Delish

- Is a food network website that has a large database of recipes for each dish. They rate dishes based on popularity and the time of the year! Most if not all recipes are accompanied by video footage of a chef and the website also has a lot of tips and tricks!



### Myrecipes

- This website is more of a listing website, it has a lot of articles that combine numerous recipes based on time, ingredients, equipment, occasion and so on



### Taste of Home

- As a space, here is one that is directed solely to provide a more homely recipe list, from Grandma's Favorites to Cozy Weather recipe's, they have numerous lists of 50 - 100 recipes!

Chapter 4

# experimental design and methods

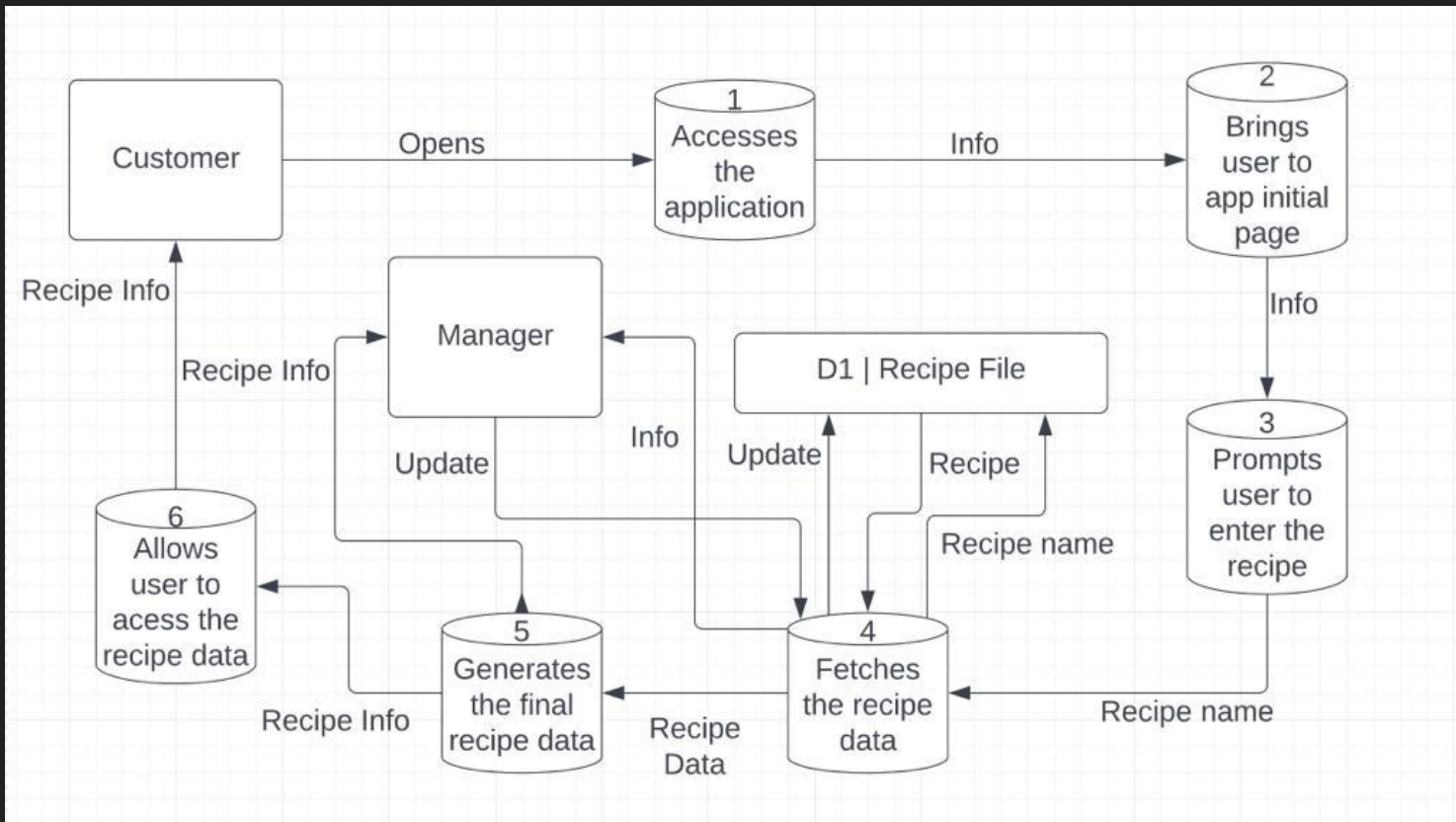
# software design model

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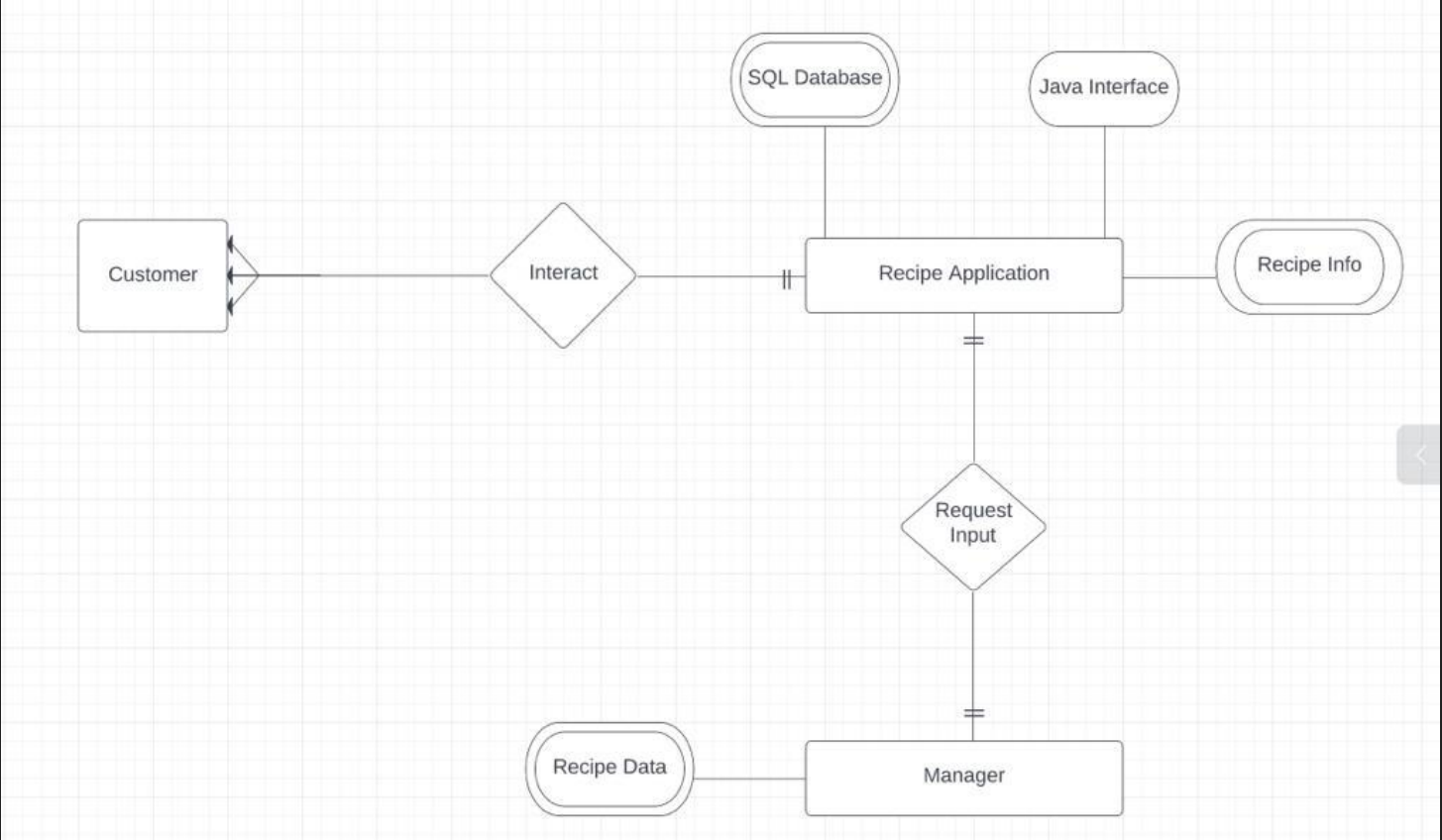
## a combination of waterfall and v-model structure

a waterfall model alone is not suitable enough as we need to make sure that we are completing the correct requirements and that our software is working correctly. For this, we need to add a v-model approach to validate and verify requirements at each stage of development. The v-model approach also allows us to ensure we are meeting requirements and make sure we do not have any bugs or glitches in the system. If glitches or bugs occur, we can catch them and correct them before deployment.

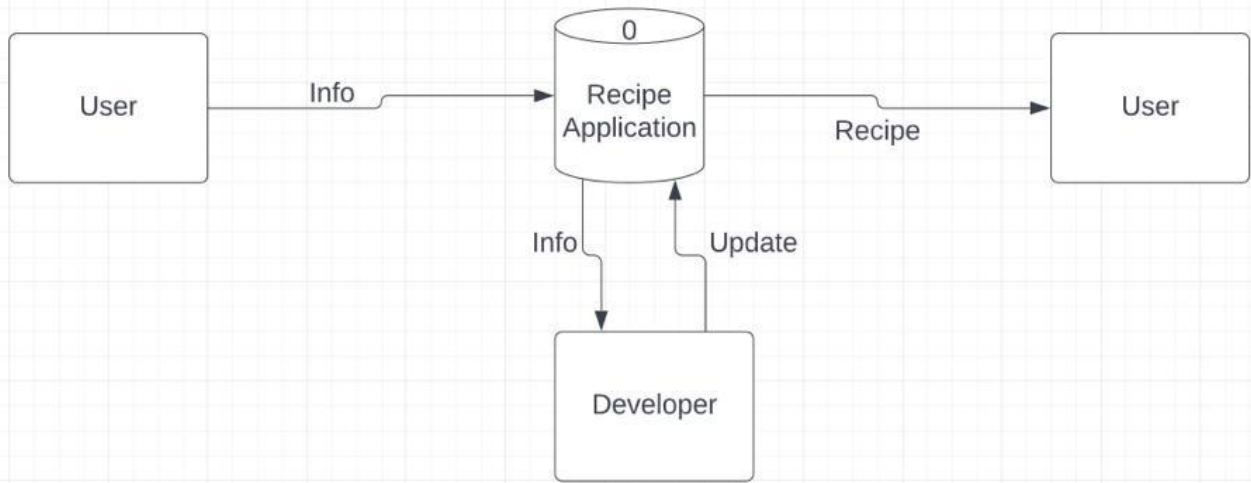
# data flow diagram



# entity relationship diagram



# context diagram





Chapter 4 - experimental design and methods

# tools & technologies

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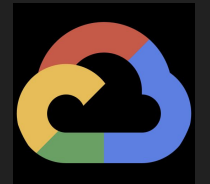
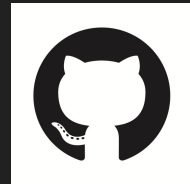
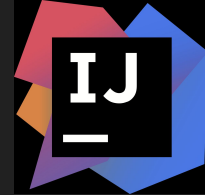
## communication



## collaboration



## technical



# timeline

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1. Planning and Defining requirements [Completed at time of submission]
  - a. The requirements and tools to be used for the software project are already specified in this document.
2. Data Flow Diagram (DFD) and Entity Relationships Diagram (ERD) [October 17, 2022]
  - a. The DFD and ERD diagrams will be completed as a portion of the Planning and project definition and will depict the project in a more visual friendly way
  - b. Moreover, the diagrams will act as a map to layout the requirements in an easy to understand manner
3. Designing, Prototyping and Building the software [November 30, 2022]
  - a. This will be the longest portion of the project where the team will hold frequent SCRUM meetings using Kanban methods to evaluate team-members proficiency as well as develop the features and functionality determined in the Designing, Prototyping, and Building section.

# timeline

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1. **Testing and Performing Quality Assurance Evaluations** [December 7, 2022]
  - a. The specified date for quality assurance testing is general rather than specific because December 7, 2022, would be considered the last possible chance for system testing and diagnostics.
  - b. However, system testing and evaluations will occur periodically throughout the development cycle.
2. **Deployment** [December 14, 2022]
  - a. Deployment of the system is expected to be on December 14th, 2022. Alongside the software deployment will be extensive technical documentation elaborating on the system development, use cases.

thank you