First, brainstorm how the chatbot should be developed. Create a document hw2_p3.pdf that explains your design decisions - write up a few scenarios about how the chatbot could be used (2-3 paragraphs).

My design decisions mainly revolved around creating a framework that was simple but extensible. It was most important to me to have a version that worked that I could build upon to create new scenarios. I also have added a lot to be able to handle differently phrased inputs - it was important to me that the system should be able to understand most user queries. In this kind of system, where the user is more just chatting with a system that has a pre-arranged set of topics, the program has to be pretty clear what you want to talk about next - if there is not a direct flow for the conversation, it could be easy for the human to become distracted or bored.

The main scenarios I thought of were as follows:
1. Asking about a food
2. Asking about that food's recipe (split into 2 parts)
3. Asking about ingredients
4. Asking about why I liked food

I also made several decisions with regards to the recipe handling. It was difficult to instantiate a variable that tracked the user's status in terms of how much of the recipe they had seen, so I just decided to use an number of keywords to try and check where they were in the recipe. The system is not perfect but it seems to work for most responses.

In the document hw2_p3.pdf describe a few scenarios with your system, and explain how it should be executed (which software needs to be used, which version of AIML). Explain your design decisions (2-3 paragraphs).

My program automatically starts with an entry message and asks what you want to talk about. So the main scenarios I support are asking about one of the favorite foods, asking about the recipe, or asking about one of the ingredients. I have also

added multiple facts about the ingredients to keep the system interesting. These main paths actually represent a lot of dialogue on my part that makes the system fairly interactive. I had my brother interact with it in order to give me ideas about what kinds of wild cards i should support. This actually took an insane amount of time to implement all things considered. Most of my time was spend adding realistic dialogue - I had a lot of trouble with AIML so I mainly spent a lot of time building functionality out in the parts of it that I understood well.

In order to run the program, you need to have the python version of AIML. I am running my xml file on version 1.0.1 which is I think default supported by the python aiml package. I only have two files - my foodbot.xml fil and my start.py file, which will be in the zip folder. If you run start.py, it will start the chatbot and output the opening dialogue so you can begin interacting.

SAMPLE CONVERSATION:

Enter your message >> can i hear about pasta

Pasta is a grain product made with eggs or water and unleavened flour. It has been eaten for centuries - it originally was made in italy. You can either ask about another food (the list is steak, chocolate cake, chicken nuggets, ice cream, or pasta) or ask about one of the listed ingredients. Or I can tell you about why I like pasta.

Enter your message >> why do you like pasta

Pasta is a grain product made with eggs or water and unleavened flour. It has been eaten for centuries - it originally was made in italy. You can either ask about another food (the list is steak, chocolate cake, chicken nuggets, ice cream, or pasta) or ask about one of the listed ingredients. Or I can tell you about why I like pasta.

Enter your message >> whats the recipe

For pasta, the flour, salt, and eggs have to be kneaded together and mixed well. Roll on a lightly floured service and cut into strips to be cooked. If you would like to hear the rest of the recipe, let me know. Or you can ask about the ingredients.

Enter your message >> lets hear the rest

For pasta, after mixing the ingredients together, you can either choose to boil the pasta immediately to make it, or you can leave out the pasta dough that you have created - it will harden to be used later. Please pick one of the other foods (steak, cake, chicken nuggets, ice cream, or pasta) or ask about one of the ingredients.

Enter your message >> what is flour

Flour is a powder of a grain. It has been synthesized by humans for millennia and has made up much of western diets since then.

Enter your message >> awesome

In that sample conversation, I hit on all of the major parts of the system.

The files needed are start.py and foodbot.xml