

COOKING INSTRUCTOR



BACKGROUND & ENVIRONMENT

Phase 0 of the Task-Centered System Design Process

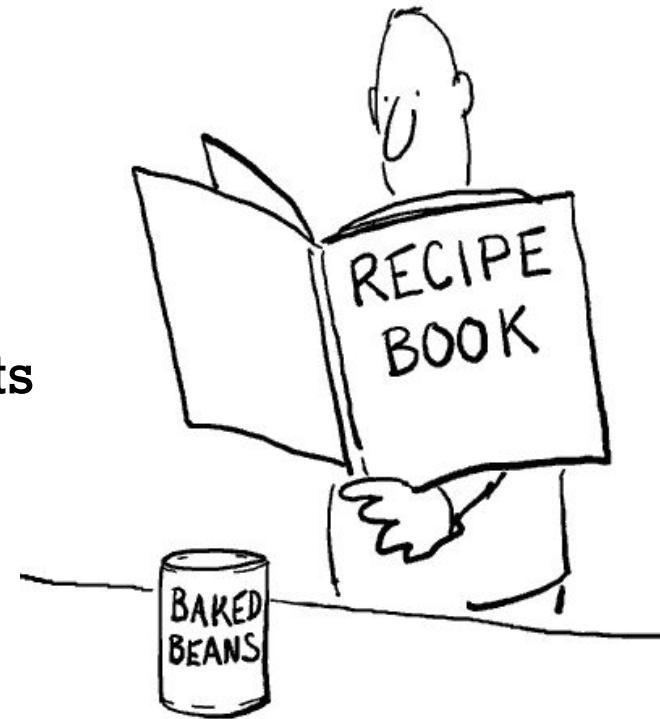
WHY IS THE SYSTEM NEEDED?

- People consider cooking as a skill that they want to learn.
 - Our system will provide them with modern interactive tools.
- Users consider alternative sources of instruction as disorganized and incomplete.
 - The goal of our system is to remove roadblocks in the way of both the learning process and the cooking experience.
- Many people cook out of necessity, rather than for enjoyment.
 - As a consequence, cooking can be a struggle or stressful.
 - Our system can be used to make the process more efficient and less stressful.



WHAT THE SYSTEM WILL BE USED FOR

- Search and find recipes depending on needs
 - Time constraints
 - Ingredients
 - Names
- Prepare and cook a recipe
 - Providing instructions/ingredients/equipments
 - Provide unfamiliar cooking terminology
 - Converting unit measurements
- Keeping favourite recipes all in one place



SYSTEM CONSTRAINTS

- Financial
 - Estimated cheap product
 - Limited knowledge of C#
- Technical/OS
 - Constrained by typical consumer hardware and OS
- Access to Internet
 - May not be ubiquitous



IDENTIFICATION

Phase 1 of the Task-Centered System Design Process

EXPECTED TYPES OF USERS

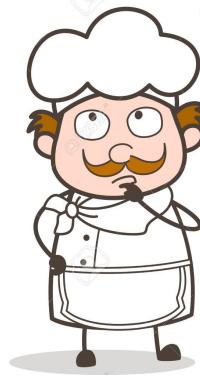
- **Typical:**
 - Inexperienced cooks
- **Occasional:**
 - Experienced cooks
- **Unusual:**
 - Professional cooks



Inexperience



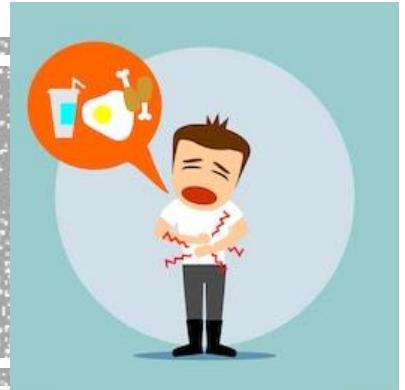
Professional



Experienced



WORK CONTEXTS



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- Typical Situation
 - Everybody needs to eat, make cooking a daily necessity
 - Cooking is usually a process where a number of steps are followed in order to prepare and use various ingredients to make a meal
 - The number and quantity of ingredients vary depending on the recipe
 - The criteria for choosing a recipe to cook might depend on various factors such as time of day, number of people the person is cooking for, amount of time and resources available to prepare the meal.



CONCRETE TASK EXAMPLE #1

Stephan is a first year university student who just started living on his own for the first time. He has never prepared a meal for himself before and relied on his mother for everything from grocery shopping to doing his laundry. Shortly after moving to his own apartment, he craves for pasta and decides to make it himself. He searches for recipes of pasta dishes for beginners in various websites and chooses the one that requires the minimum amount of ingredients. He then gets the list of ingredients from the recipe (1 (14 ounce) package of turkey smoked sausage, 8-ounces of pasta, 2 cups heavy cream, 1/2 cup grated Parmesan cheese, 2-pounds of tomatoes). He gathers the cookwares he has and hopes that will be sufficient (boiling pot, strainer, measuring cups, grater, skillet) to make the dish. He then looks at his stock of ingredients and goes shopping



CONCRETE TASK EXAMPLE #1

...to get the items that he is missing. When he returns home, he begins by measuring and preparing all the ingredients required to make the dish. He then follows one instruction at a time from the recipe, and moves on to the next instruction once the previous steps are completed. In one of the steps, he finds the instruction to dice the tomatoes, but he is not sure how to execute the task. Then he looks up what dicing means before continuing with the next step. He finally completes all the instructions of the recipe resulting in a finished pasta dish. He takes a bite of the pasta and is amazed by his newly learned cooking skill. He copies and saves the recipe in his personal journal for future reference.



Discussion #1

- Stephan is a typical user (beginner level)
- Frequent routine tasks performed by Stephan
 - Searching and selecting what to make
 - Checking that he has the necessary ingredients/equipment
 - Following series of instructions
 - Looking up cooking terminology
 - Saving recipe for future use
- Illustrates what is expected of user:
 - User has all ingredients/equipment, if not then list provides reference for shopping
- How this task was collected: family member



CONCRETE TASK EXAMPLE #2

Frank is a user who has intermediate cooking experience, however has frustrations with the traditional mediums he has always used (e.g. cookbooks and websites) to prepare his meals. When following a recipe, he often forgets what step he is currently on. He is testing out our application and is worried about his forgetful nature. As a solution, he uses the application to track the current step and to check off all previous steps. He also detests how recipes are frequently written in units he is unfamiliar with. As he comes to a measurement that he doesn't recognize, he uses the application to quickly convert the listed unit to a standard unit that he is more familiar with. These tools prevent these obstructions and allow him to focus on the cooking experience.



Discussion #2

- Frank is an occasional user (experienced)
 - Main benefit: Speeds up the cooking process by minimizing the negative effects that the described obstacles evoke
- Common situation amongst this user class
 - Ability to track steps: Important due to this task being commonplace among all traditional mediums.
 - Converting units: Important due to people working more comfortably with their own units with variability on frequency.
- How this task was collected: Own experience



TENTATIVE LIST OF REQUIREMENTS

Phase 2 of the Task-Centered System Design Process

Tentative List of Requirements

- Ability to identify and learn what a specific cooking term means (e.g. dice, julienne, mince, etc.)
- Ability to search for a recipe based on:
 - Time constraints,
 - Ingredient constraints,
 - Expected price,
 - Portion size (number of people it feeds),
 - Category (pasta, soups, cold food, seafood, desserts, etc)
 - Name
- Visual indicators ((videos/pictures/gifs)
- Ability to rate or otherwise give feedback on recipes.
- Ability to favourite/save recipes.
- Ability to add new recipes, and submit them publicly.
- Ability to convert between standard measurement units (also possibly, give user a way to judge what a specific measurement looks like, visual/to scale).
- A timer.
- Voice commands
- Ability to look for substitutes
- Scale Portion size



Prioritized List of Requirements

Absolutely must include

- Learn cooking terms
- Convert between standard measurement units.
- Search for recipes based on certain criteria
- Save/favourite recipes

Should Include

- Visual indicators (videos/pictures/gifs)
- Rating recipes

Could Include

- Timer
- Modifying saved recipes
- Adding new recipes
- Substituting ingredients
- Scaling portion size

Exclude

- Voice commands