



CS 370 Software Engineering

Lab 1

Student	
Name	CSUSM user name
Arpita Godbole	Godbo004

Grading Rubrics (for instructor only):

Criteria	1. Beginning	2. Developing	3. Proficient	4. Exemplary
	0-15	16-25	26-35	36-40
Response to (1): ethics issues	Response is less than 50 words with unclear justification	Response is about 100 words, justification in some places is not appropriate	Response is at least 100 words and justification is mostly appropriate	Response is at least 100 words and appropriately justified the ethical issue
	0-6	7-11	12-16	17-20
Project proposal (2): Business background	No or little information provided	More information is needed	Sufficient information is provided	Sufficient information is provided with good writing skills
	0-6	7-11	12-16	17-20
Project proposal (2): needs	No or little information provided	More information is needed	Sufficient information is provided	Sufficient information is provided with good writing skills
	0-6	7-11	12-16	17-20
Project proposal (2): objectives	No or little information provided	More information is needed	Sufficient information is provided	Sufficient information is provided with good writing skills
Total Grade (100)				



Problems (Use this template for your submission):

1. **To help counter terrorism, many countries are planning or have developed computer systems that track large numbers of their citizens and their actions. Clearly, this has privacy implications. Explain your opinion on the ethics of working on the development of this type of system.**

A system that closely monitors every citizen, and their actions is not ethical because it is a major privacy breach. Although it can be argued that it is done with the intent of keeping the country safe from potential terrorist attacks, it can lead to assumptions and false accusations of innocent people if taken out of context. It can also lead to the misuse of this technology by the government or other entities to suppress free speech and target marginalized groups. As developers it is part of our job to make sure the systems that we create are ethical and have benefits to society. For a surveillance system like this to be created, it would have to have full transparency, with restrictions to avoid misuse and accountability from everyone who utilizes the system, which are all very difficult to guarantee. But technology like this affects the whole population and it could affect public trust and create fear, so I would say that developing this technology is not ethical.

2. **Following the example project proposal given in the lecture slides, each student should write a project proposal, including all three elements (Background, Needs, and Objectives). Note that this project proposal assignment has nothing to do with the counter terrorism prompt in Problem #1. The project proposal can be about anything you feel interested in and would like to see software developed for it.**

Custom Recipe Generator

Background: People often find themselves with a limited amount of time to plan meals and use all the groceries they buy. Many people face the challenge of figuring out what to make using the ingredients they have, especially when dealing with dietary restrictions or nutrition goals. While existing recipe platforms like Allrecipes or recipe books provide a broad selection of recipes, they are not personalized to the individual and don't accommodate to available ingredients and individual preferences. A Custom Recipe Generator can create a solution for this problem by providing ingredient scanning, dealing with dietary restrictions, and meal planning into a single, efficient tool that helps users save time, reduce waste, and eat healthier.

Needs: Users frequently discard ingredients because they do not know how to use them effectively in recipes, contributing to unnecessary food waste. Existing recipe platforms do not allow users to input their available ingredients and create customized meals. People with dietary restrictions or specific nutritional goals struggle to find recipes



tailored to their unique needs. People often lack the time and energy to manually search for recipes, especially when they need quick solutions for meals. A user friendly and customizable application is needed to simplify meal planning, allowing people to focus more on eating healthier and stop wasting money and food.

Objectives:

- Make the application accessible and easy for users of all skill levels with simple, user friendly features like barcode scanning and ingredient photo recognition.
- Can provide data on the meal like serving size, calories, and macronutrients to help users meet their dietary goals.
- The application will generate personalized recipe suggestions based on the provided ingredients and dietary preferences.
- The system will include features to help users plan weekly meals, track ingredient expiration dates, and reduce food waste.
- Integration with smart kitchen devices and external recipe platforms will be explored for enhanced functionality.