**Open-Ended Project**

**Meal Planner Application**

**Problem statement**

People often struggle with daily meal planning and grocery shopping, resulting in unwanted stress, inefficiency, and poor decision-making regarding family nutrition.

**Proposed solution:**

A Meal Planner Application could be a solution to that problem. It could provide the user the ability to:

1 – Enter the usual recipes the family commonly consumes.

2 – Store the necessary ingredients required for those recipes.

3 – Allow users to plan meals for specific dates, specifying lunch, and dinner.

4 – Track the recent meals to be more conscious about family nutrition.

5 – Generate a shopping list based on the meal plan.

**Possible features:**

* Add ingredients.
* Delete ingredients.
* Add meal: Create a new meal with a name, type (main, accompaniment), and ingredients.
* Edit meal.
* Delete meal.
* Plan Meal: Choose the meal/s from the recipes to prepare for a future day.
* Create an automatic meal plan: Choose a range of days to automatically create a meal plan.
* Provide the ability to view and modify existing meal plans.
* Delete a planned day.
* Check a meal planned as done.
* Check a meal planned as skipped.
* Create a grocery list from the planned meals.
* View meals history: Select a range of days to view meals history.
* Database Management

**Other possible implementations:**

- Desktop GUI: WPF

- Web App: ASP.NET Core

Design process

What does the program do?

The program helps the user plan their daily meals and grocery lists.

Serialize the objects using System.Text.Json and System.Text.Json.Serialization

What user inputs does it have?

* Meal ID
* Meal name
* Meal ingredients
* Meal type (Main, Side Dish)
* Meal recipe (optional)
* Ingredient ID
* Ingredient
* Ingredient type (main, seasoning)
* Teclado. Flecha arriba y abajo para seleccionar opciones
* Teclado. Enter para confirmar opciones
* Date to plan a meal (day, month, year)
* Number of days to plan a meal for
* Select Next available day for a meal plan
* Select a planned day to change it.
* Mark a planned day as done
* Mark a planned day as skipped.
* Number of days to retrieve meals history (1,2,3, 1 week, all)
* Number of plan days to create a grocery list for

What output does it produce?

* Welcome message.
* Dynamic Options
* My current meal plan (upcoming meals)
* Create a meal plan (repeat every week or customize every week)
* If there aren’t meals in the database. A meal plan can’t be done
* List of meals (separate Main and Side Dish)
* List of ingredients
* Grocery List
* Optional: Displaying Tables (ConsoleTables)

How does the program end?