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| MEAL Plan GENeRATOR PROPOSAL  No more saying, “What are we having for dinner tonight?” |
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### **Abstract**

To provide a web application that anyone can use to upload recipes via manual entry or URL to enter a semi-random generator to pick meals for the week based off recipe ratings. Once the meals have been selected, the shopping

list will be generated. Web application built with JavaScript using Angular and Node.js frameworks.

### **Background**

The idea of a meal plan generator came from the constant complaints from family members struggling to come up with what to eat for dinner. My brother mentioned that there should be a program to solve that problem for us. That is where the idea was born. I decided to do a web application because it is the most versatile and available to everyone. Additionally, I have never built a web application and feel it would be a good learning experience.

### **Description**

A web application built in JavaScript using Angular for a front-end framework and a node.js backend. The application will be a meal plan generator for families to be able to add whatever recipes they would like to have in the rotation. They can insert the recipes by manually entering the details (Title, ingredients and instructions) or by entering a URL to the recipe for the program to extract the information from the web-page.

The recipe list, and weekly meal plan can be shared by multiple users so a whole family can be informed. Additionally, each user will be able to rate each recipe one a scale of 1 to 5 stars which will influence the amount of likelihood that the recipe will be selected in from the generator.

Once the generator has come up with the weekly meals, it will gather all the ingredients needed to make every meal and create a shopping list. The shopping list will be a check mark list which the user could easily check items

off that they already have or obtained.

Once the user comes onto the webpage, it will show them the recipe that has been selected for that night. The application will autonomously continue to create weekly meal plans, and the any user in the group can add recipes at

any time.

### **Target Audience**

The main target audience will be for families that cook at home, but individual cookers can also benefit.

### **Significance**

The meal plan generator web application will be significant because anyone

in the world will be able to use this application. It will be free of charge. This application would be able to help families save time because not having to try

to figure out what they are going to eat for dinner all the time. Additionally, it

will help to save money and eat healthier. Having a set plan for meals will help remove the temptation to go eat out or order pizza. Many times, my wife and I eat out because we don’t know what to make, or we don’t have ingredients to make it.

### **New Computer Science Concepts**

I will need to learn how to make a working web application. I will need to learn JavaScript in a more in-depth manner, as well as learn the frameworks, Angular and Node.js. I will need to know how to host a database and a server for the website.

### **Interestingness**

I love going on a web-page when it is beautifully designed. To be able to make

a webpage that looks great is going to be a big accomplishment for me. Angular provides a way to make web pages more interesting using cool animations and interactive elements. I am excited to learn and use them.

To develop something that I know people will use is also going to be a big motivator. I know for sure that my family will use it, but I am confident more people will like to use it also.

Additionally, I love to learn. Since all of this is going to be new to me. It will be exciting as I learn what these frameworks are capable of and to develop things that I have never developed before.

### **Tasks and Schedule**

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| **Task** | **Deadline** | **Estimated Hours** |
| Create SRS | Feb 23rd | 8 hours |
| Research the framework functionality and website examples. | Feb 9th | 20 Hours |
| Design website layout | Feb 9th | 8 Hours |
| Design backend | Feb 16th | 10 Hours |
| Create functional website with all pages | Feb 23rd | 8 Hours |
| Create functional login system with APIs | Mar 2nd | 10 Hours |
| Create server and databases with security | Mar 9th | 14 Hours |
| Create functional backend processing including meal plan generator. | Mar 16th | 12 Hours |
| Add functionality into webpages for generator | Mar 23rd | 15 Hours |
| Testing and Debugging | Apr 10th | 20 Hours |
| Beautify the website | Apr 10th | 15 hours |
| Publishing | Apr 10th | 2 Hours |

### **Required Resources with Cost**

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| Resource | Cost |
| Web Hosting https://hostmayo.com/ | $1/ a month for 1 GB |
| Database https://firebase.google.com | Free for 1 GB |