**SEIS 610 -03 –Software Engineering:**

**Meal Picker App**

**by:**

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**INCEPTION**

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| --- | --- | --- |
| **Version** | **Status** | **Version Date** |
| **1.0** | **Draft** |  |

1. **Project Vision**

The website Nutrition Meal Picker guides users with meal options and recipes for a provided dietary need. Users would provide information like age, weight and height, and targeted weight loss. The Nutrition Meal Picker application will suggest the meal plans with the dietary nutrition values. Users would also have options to select favorite ingredients.

User adds macro data or calories (that they have already researched) into the app and the algorithm calculates the macros and meal ideas. User asks app to provide meal ideas based on users desired amount of macros per meal.

User also cataloges food preferences by scanning bar codes of food items they enjoy. App is connected to API/Database of current nutritional values to find those food items and store for user.

The five primary functions of the app are to enter calories, or to enter macros, make the nutrional database available, enter food preferences, and ask to food recommendations.

1. **Project Boundaries**

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| a. | This would be a web-based application written in Java, Java script, HTML and CSS. |
| b. | ~~This Application would be compatible only with IE and google chrome browsers and browsers on smart phones. This application will not be compatible with Firefox or any other browsers and not intended to use as a mobile App.~~  Works on all browsers but not mobile apps. |
| c. | The nutrition values calculations are based on ingredients ~~commonly sold in US local stores.~~ located in API/Database. |
| d. | This tool would just highlight the dairy or nuts used in the meal but not any other allergy triggering information. |
| e. | This tool would not provide options for in person appointment with the nutritionists for customizing meal plan. |
| f. | Data base and website will be hosted on cloud; hence the website might not be functional due to any down time with cloud infra structure. |
| g. | Users can save their meal plan max for a week. |
| h. | Legal liability for info as actual medical advice |
| i. | Data privacy – need terms and conditions and privacy policy |

1. **Requirements**

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| --- | --- |
| a. | As an end user I would like to find healthy meal options so I can balance my every day diet. |
| b. | As an end user I would like to set a target weight so I can find some meal options to help me get to the target weight. |
| c. | As an end user I would like to save my meal plans for a week. |
| d. | As an end user I would like to select my favorite ingredients so the app can suggest meals relevant to the selected ingredients. |
| e. | As an end user I would like to enter the number of calories so the app can suggest meal options. |
| f. | ~~As a Nutritionist I would like to maintain the nutrition values in the database so end users would see more updated nutrition values.~~ |
| g. |  |

1. **Business Case and Initial Cost Estimate (20 points)**

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| --- | --- |
| a. | Business risk: No experience with food processing like calculating the nutrition values and not experienced with the scientific chemical names. |
| b. | Some of the team members would need training on SQL and database programming. |
| c. | Fee for hosting the website and database on cloud. |
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a. Project has a total of 53 tomatoes. We believe each tomato is worth 1.5 hours of labor. We believe our hourly rate to be at $15.00 per hour, therefore cost of labor for the project will be $1,192.50.

b. There are some web sites available that suggest the meal options with nutrition values, but they all are very time consuming for users to key in all the information upfront. Rather it would help users to be prompt only for relevant information based on the previous options opted.

d. Business risks. Developers could be spending time on this project instead of a project that is more necessary for the group. It is possible nobody will want to use the software when it is ready. It is possible no return on investment is possible as it is so dedicated to this special mission we won’t even be able to make a game of it.

e. The project will only need a PC or two with Java. Maximum tool cost $1000.00.

1. **Identify Risks. (15 points)**

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| a. | ~~No experience calling java program with in web based application~~ |
| b. | Limited amount of nutritionist knowledge. Word differently, but this is correct |
| c. | Not sure how to calculate the nutrition values and calorie formulas |
| d. | No experience with api databases |
| e. | Server and api cost is a risk |
| f. | Legal liability for info as actual medical advice |
| g. | Data privacy – need terms and conditions and privacy policy |

1. **Candidate Architecture (5 points)**
2. **Non-functional requirements (Often called FURPS in Rational Unified Process)**

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| --- | --- |
| a. | Sensitive information would be encrypted when data is at rest and as well as on the GUI. |
| b. | Website could handle 10, 000 people at a time. |
| c. | Users can save their meal plans up to a week. After a week the data will be deleted. |
| d. |  |
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1. **Glossary.**

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| Daily Value | The amount of a nutrient (in grams, milligrams or micro grams) recommended per day for Americans 4years or older age. The nutrition fact labels lists the daily value for base 2000 calories daily diet. |
| Essential Nutrients | A vitamin, mineral, fatty acid or amino acid required for normal body functioning. |
| GUI | Graphical user interface. Interface used by users to enter and access information |
| End User | People who are performing actions or using the application. |