Use Cases

for

Health and Diet App, Release 1.0

Version 1.0 approved

Prepared by Kevin Kemmerer

Process Impact

October 10, 2019

Revision History

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| --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Version** |
| Kevin Kemmerer | 10/3/19 | initial draft and use case ID#1 | 1.0 draft 1 |
| Kevin Kemmerer | 10/22/19 | Reduce Redundancy of current use cases. Removed use case ID#4, ID#12, ID#11. Updated use cases ID#1-8 | 2.0 draft 1 |
| Kevin  Her | 10/07/19 | Initial use case ID#5, ID#10 | 1.0 draft 1 |
| Mike Desch | 10/07/19 | Initial use case ID#2 | 1.0 draft 1 |
| Thang Huynh | 10/04/19 | Initial use case ID#4, ID#12 | 1.0 draft 1 |
| Thang Huynh | 10/05/19 | Update use case ID#4 | 1.1 draft 1 |
| Liban Salad | 10/06/19 | Initial use case ID#3, ID#6 | 1.0 draft 1 |

The various user classes identified the following use cases and primary actors for the Health and Dietary Application:

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| **Primary Actor** | **Use Cases** |
| User | 1. Access website  2. Search for food item  3.  View item and inspect nutritional values |
| Server | 4.  Keep nutritional values up to date  5.  Define nutritional diets |
| Nutrition Calculator | 6. Calculate macronutrients  7.  Generate diet reports |

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| Use Case ID: | 1 | | |
| Use Case Name: | Access Website | | |
| Created By: | Kevin Kemmerer | Last Updated By: | Kevin Kemmerer |
| Date Created: | 10/03/2019 | Date Last Updated: | 10/22/2019 |
| Actors: | User | | |
| Description: | A User accesses the Health and Diet website from the corporate intranet or from home, optionally views nutritional information for items, selects food items, and places their dietary information in the calculator for a fast and easy macronutrient count with calories and other nutritional information. | | |
| Preconditions: | 1. User is connected to the intranet. 2. User voluntarily searches for or inputs the website URL | | |
| Postconditions: | 1. A separate view/table shows up side-by-side of the current food item, showing an image and current nutritional information. 2. Search form persists on the page for the user to optionally search for additional item(s), as desired. | | |
| Normal Flow: | **1.0 Access website**  1. User has access to the intranet  2. User searches for or types in the website information  3. Server and System are running correctly, and the user accesses the website | | |
| Exceptions: | **E1.0. User does not have access to intranet**  1. Website is not able to be accessed  **E1.1 Server is not running correctly**  1. User is not able to access the website  2. User is shown an error 404 no connection available. | | |
| Includes: | Internet access and user willingness | | |
| Priority: | Very High | | |
| Frequency of use: | It is assumed that the user would want to access the website application and has access to the intranet | | |

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| Use Case ID: | 2 | | |
| Use Case Name: | Search for food item | | |
| Created By: | Mike Desch | Last Updated By: | Kevin Kemmerer |
| Date Created: | 10/06/2019 | Date Last Updated: | 10/22/2019 |
| Actors: | User | | |
| Description: | User searches the food nutrition database for a given item by entering keywords into the search form on the search page, views the nutrition info that displays on the page, and is able to perform additional searches on the database, if desired. | | |
| Preconditions: | User has accessed the website/application and is able to search the database for a food item. | | |
| Postconditions: | 1. A separate view/table shows up side-by-side of the current food item, showing an image and current nutritional information. 2. Search form persists on the page for the user to optionally search for additional item(s), as desired. | | |
| Normal Flow: | **1.0 Search for food item**  1. User has access to the intranet  2. User accesses the website application  3. User is able to use the search function on the website to pull information from the database for a food item.  4. System displays the food item with up to date nutritional information | | |
| Exceptions: | **E1.0 User does not have access to intranet**  1. Website is not able to be accessed  **E1.1 Server is not running correctly**  1. User is not able to search for a certain food item  2. Database is not able to be accessed to show current and updated nutritional information  3. User is not shown updated nutritional information | | |
| Includes: | User and website interaction | | |
| Priority: | Very High | | |
| Frequency of use: | It is assumed that the user would want to access the website application and is searching for a food item. | | |

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| Use Case ID: | 3 | | |
| Use Case Name: | View item and inspect nutritional values | | |
| Created By: | Liban Salad | Last Updated By: | Kevin Kemmerer |
| Date Created: | 10/06/2019 | Date Last Updated: | 10/22/2019 |
| Actors: | User | | |
| Description: | Where users access the website to view and inspect nutritional information of food items. | | |
| Preconditions: | User has accessed the website/application | | |
| Postconditions: | A separate view/table shows up side-by-side of the current food item, showing an image and current nutritional information | | |
| Normal Flow: | **1.0 Compare nutritional values to diet**  1. User has access to the intranet  2. User accesses the website application  3. User searches for a food item  4. System displays the food item with up to date nutritional information | | |
| Exceptions: | **E1.0 User does not have access to intranet**  1. Website is not able to be accessed  **E1.1 Server is not running correctly**  1. User is not able to search for a certain food item  2. Database does not have current and updated nutritional information  3. User is not shown updated nutritional information | | |
| Includes: | User participation | | |
| Priority: | High | | |
| Frequency of use: | It is assumed that the user would want to view a food item with nutritional values each time a search is made. | | |

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| Use Case ID: | 4 | | |
| Use Case Name: | Keep nutritional values up to date | | |
| Created By: | Kevin Kemmerer | Last Updated By: | Kevin Kemmerer |
| Date Created: | 10/7/2019 | Last Updated By: | 10/22/2019 |
| Actors: | Server | | |
| Description: | The server updates itself with new and current nutritional information on all food items each time a user accesses the website. | | |
| Preconditions: | The server has access to current and updated nutritional information | | |
| Postconditions: | The server displays current and updated nutritional values to the user. The user is satisfied with how fast the server responds to their inputs and trusts the information. | | |
| Normal Flow: | 1. **Nutritional values are up to date** 2. Database scans for changes in current nutritional information 3. Database stores updated nutritional information 4. Server is connected to the database 5. Server is allowed to see updated information and double check the database | | |
| Exceptions: | **E1.0 Server doesn’t have access to database**   1. The database has current information 2. Server isn’t able to retrieve that information for the user   **E1.1 Database is not being updated**   1. The database does not have current macronutrient information 2. Server accesses the database and displays outdated information to the user   **E1.2 Server is not able to display information**   1. The database has current information 2. The server has access to the database and updated information 3. Server does not have access to what the user searches for 4. Not able to display current information in a form the user understands | | |
| Includes: | Continuously updated database | | |
| Priority: | High | | |
| Frequency of use: | Must be used very frequently to keep the server updated with current information. (Each time a user accesses the website) | | |

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| Use Case ID: | 5 | | |
| Use Case Name: | Define nutritional diets | | |
| Created By: | Liban Salad | Last Updated By: | Kevin Kemmerer |
| Date Created: | 10/7/2019 | Last Updated By: | 10/22/2019 |
| Actors: | Server | | |
| Description: | Server has predetermined diets (meal plans) that may be suited for certain lifestyles | | |
| Preconditions: | Server is running correctly and has certain diets it may show the user that could fit their lifestyle | | |
| Postconditions: | User will have information about different types of diets and nutritional values. Will also include examples and tips to help users with nutritional information and beneficial diets. | | |
| Normal Flow: | **1.0 Define nutritional diets**  1. Server is running correctly   1. Search for food item seen in the meal plan 2. Database displays nutrition facts about the meal plan 3. Application computes nutritional values of users diet and gives diet suggestions on better meal plans | | |
| Exceptions: | **E1.0 Server does not have current diet information**  1. System informs the user that it could not retrieve diet information for those food items. | | |
| Includes: | Database cooperation | | |
| Priority: | Normal | | |
| Frequency of use: | It is assumed that the user is interested in certain diets for their lifestyle | | |

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| Use Case ID: | 6 | | |
| Use Case Name: | Calculate Macronutrients | | |
| Created By: | Kevin Her | Last Updated By: | Kevin Kemmerer |
| Date Created: | 10/7/2019 | Date Last Updated: | 10/22/2019 |
| Actors: | Nutrition Calculator | | |
| Description: | The user will be able to calculate their macronutrients from the meal plan that is created using the database of food items with their nutritional values. | | |
| Preconditions: | 1. User is able to access the website.  2. User voluntarily inputs dietary information | | |
| Postconditions: | The meal plan that was created by the user is sent to the database to calculate more effective diet methodologies the user should be considering. | | |
| Normal Flow: | **1.0 Create a meal plan**  1. User selects the food items in their diet  2. The meal plan is created with those select food items  **1.1 Calculate macronutrients**  1. The nutrition calculator receives information from the database about improving the user’s diet  2. Calculator will display the users meal plan with up to date macronutrient information | | |
| Exceptions: | **E1.0 Calculator doesn’t have access to database**   1. The database has current macronutrient information 2. Calculator is unable to receive that information from the database   **E1.1 Calculator is not able to display information**   1. The database has current information 2. Calculator is able to access the database macronutrient information 3. Server form does not display correct macronutrient information | | |
| Includes: | Calculator | | |
| Priority: | High | | |
| Frequency of use: | When the user voluntarily inputs their diet information and trusts the server to provide up to date macronutrient information | | |

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| Use Case ID: | 7 | | |
| Use Case Name: | Generate diet reports | | |
| Created By: | Thang Huynh | Last Updated By: | Kevin Kemmerer |
| Date Created | 10/10/2019 | Date Last Updated: | 10/22/2019 |
| Actors: | Nutrition calculator | | |
| Description: | The nutrition calculator generated a diet report by comparing the values of the user’s diet plan to a predetermined recommended plan. | | |
| Preconditions: | 1. The user has a diet plan stored.  2. There is a recommended diet plan stored in the system. | | |
| Postconditions: | A summary report is displayed, showing how the user’s plan compared to the recommended diet plan in terms of nutrients. | | |
| Normal Flow: | **1.0 Generate a diet report**  1. System looks for the user’s stored diet plan.  2. System looks for the recommended diet plan.  3. System calculates each of the nutrient value of the user’s plan to see how much of a percentage it takes up the recommended plan’s value.  4. System generates a table displaying the calculated information for the user to see. | | |
| Exceptions: | **E1.0 User does not have a stored diet plan**  1. System informs the user that he/she does not have a diet plan yet, thus there is nothing to generate a report of.  **E1.1 System does not have a recommended diet plan**  1. System informs the user that there is not a recommended diet plan set up yet, thus there is no baseline to generate a comparison report to. | | |
| Includes: | Calculator and server interaction | | |
| Priority: | Normal | | |
| Frequency of Use: | It is assumed that the user would want to generate a report whenever he/she finishes a complete diet plan with multiple items already in it. | | |

**Use Case Diagram**

