Project Analysis Document

Group 3:

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Revision 1.0

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# **Revision History**

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| **Revision** | **Date** | **Name of editor** | **Description** |
| 1 | 06/08/2017 | Ashraya Regmi | Original Document |
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Project Analysis:

1) Analysis

Our project is to create a web application that keeps track of what the customer has purchased in the past and depending on their shopping history, advise them on what they might during their shopping trip to the store.

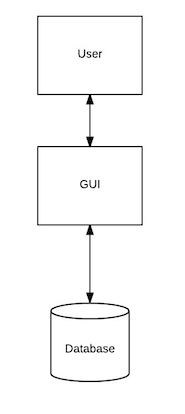
Its functional requirements are as follows:

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| **Requirement #** | **Description** |
| 1 | This program will have a user interface to interact with the web application. |
| 2 | The program tracks and stores what the user has bought overtime. |
| 3 | This program will allow the user to generate a shopping list for regular interval trips as well as special trips. |
| 4 | This program will require a backend database to store purchase and user details. |
| 5 | This program will enable the user to email lists to themselves from the website or print the list. |
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To more go details in this analysis, we will break it down regarding the output data, input data and its processing function:

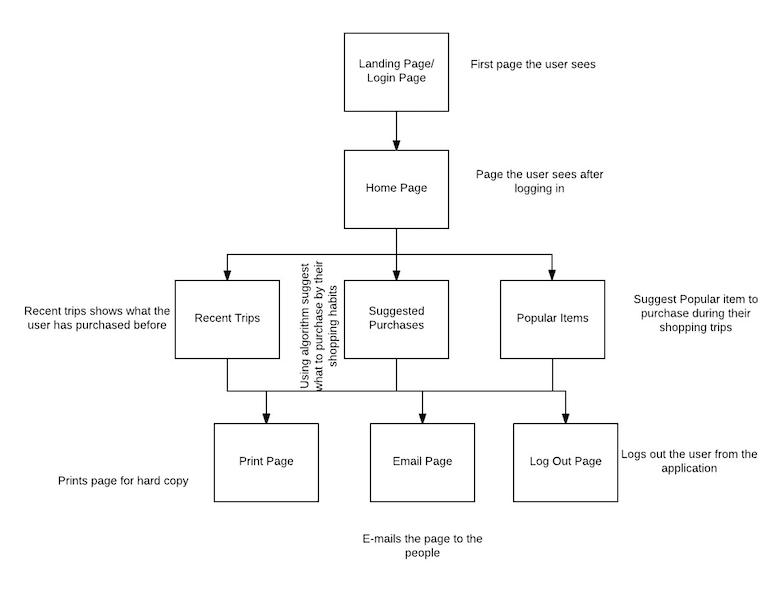
1. Outside system: the end user
2. Input data: Names, dates, notifications
3. Output data: Shopping list, list of products, products with pictures
4. Data Processing: database stores the information of products and the users shopping habits, and displays it to the user when needed.

The context diagram shows the above analysis in a diagram below in Figure 1:



**Figure 1 Context diagram**

Based on the above diagram, we can break down our system in to the following: User Input, Graphical User Interface, and the database that stores and processes the information. These systems are necessary to perform the data to convert the input data to the output data and vice versa.



**Figure 2: Subsystem diagram**

Once the user lands on the landing page, they will be provided with a log in page that the user enters the credentials to be authenticated by the database so they can be validated as the user and can proceed with using the website. After logging in, they have the option to see their recent trips and what they bought, suggested purchases based on what they have purchased in the past, and popular items they might be interested in. Also, are the print page, where the user can print the page and use it as a hard copy, email the page to another person, and log out from their account.

**Possible enhancements**:

Some possible enhancements to the application include:

* Ability to have multiple user accounts
* Ability to notify/email user what they might need on their next shopping trip
* Ability to create a shopping list based on the diet of the user
* Ability for the system to track nutritional information based on the user purchase history for food items
* Ability to calculate expense per weekly or monthly bases for their shopping trip.

**Possible risks and risk mitigation:**

Risk 1: Password cracking

Mitigation: Password encryption, when user types the password it is not seen visible.

Risk 2: