Wasteless A1

Analysis and Design Document

Student:Sas Cosmin Andrei

**Group:30431**

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1. Requirements Analysis

# Assignment Specification

The user will first register, then he can add lists of groceries. The application will then display the list on the account page, along with the number of edible calories, the calories that will expire soon and the expired calories. The user can request a monthly or weekly report regarding the number of calories.

# Functional Requirements

*As I said, the user is able to add items. He can throw, donate or consume them. He can request reports of the items*

# Non-functional Requirements

*[Discuss the non-functional requirements for the system]*

2. Use-Case Model

*Use case: the users can see the amount of food they have and manage it Primary actor: everyone that has food Main success scenario: register, add a list, throw expired items and donate the ones that soon expire, consume items, get reports Extensions: the failures lead to informative pop-ups*

3. System Architectural Design

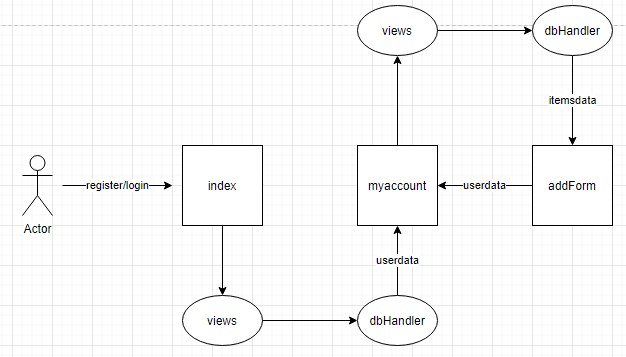
**3.1 Architectural Pattern Description**

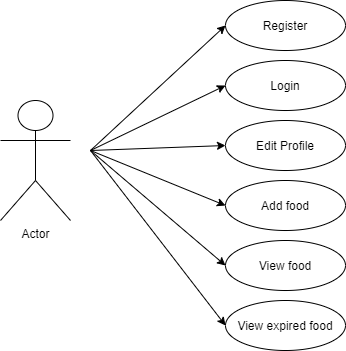
*I used the layered architecture to access the database.*

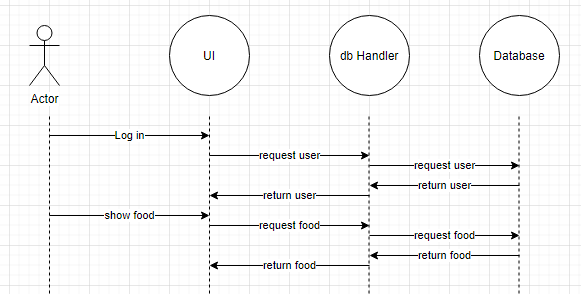
**3.2 Diagrams**

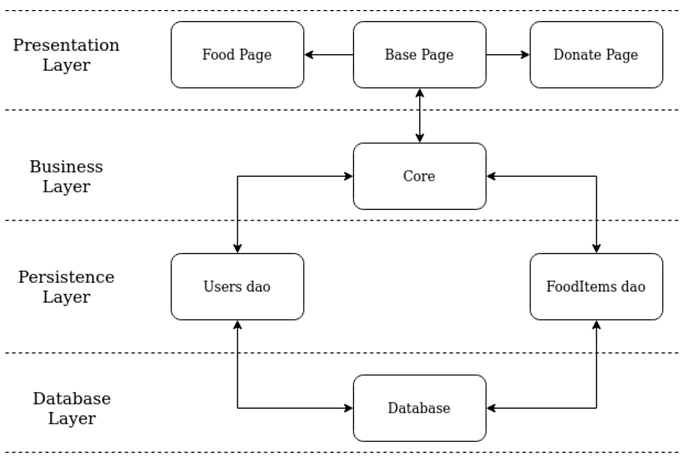
*[Create the system’s conceptual architecture; use architectural patterns and describe how they are applied. Create package, component and deployment diagrams]*

4. UML Sequence Diagrams

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5. Class Design

**5.1 Design Patterns Description**

*I used a layered design pattern. The app will use a mediator to access the database.*

**5.2 UML Class Diagram**

*[Create the UML Class Diagram and highlight and motivate how the design patterns are used.]*

6. Data Model

*Profile: name(char), password(char), calories(int)*

*List: user, name(char), date(datetime)*

*FoodItem: list, name(char), expiration date(datetime), calories(int)*

7. System Testing

*Each component has been tested individually and after assuring functionality they have been put together. After that, data-flow testing was done to ensure that all components function as expected.*

8. Bibliography