System Design Document

Client

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Team 3

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1.Introduction

1.1 Purpose of This Document

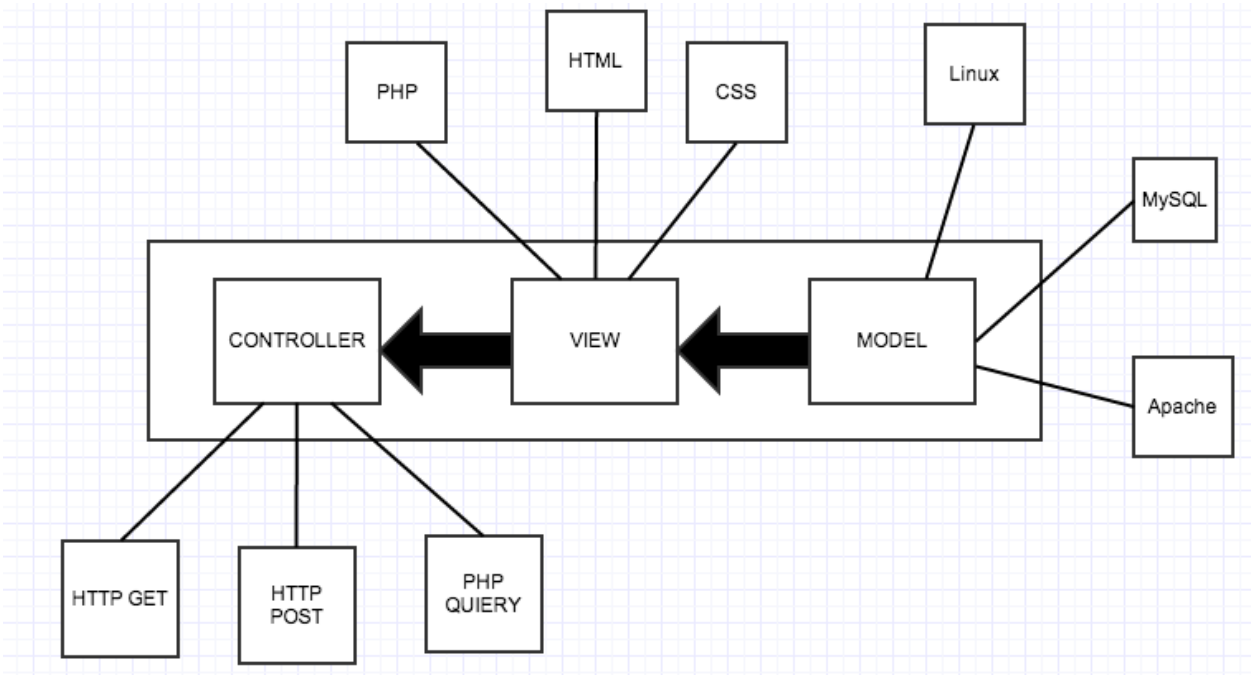
The purpose of this document is to describe the system design of the FeedMe website. Key topics covered in this document include the high level system architecture, lower level class designs, and the persistent data design of FeedMe.

1.2 References

1. DatabaseDesign.pdf - Contains database schema

2. System Architecture

2.1 Architectural Design



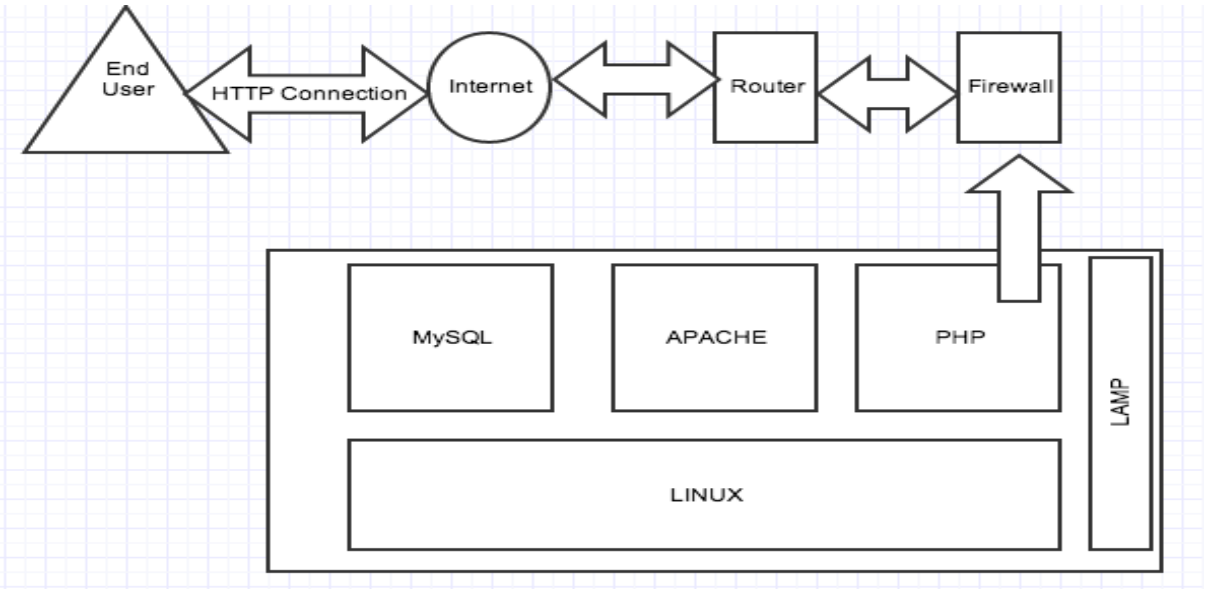
The FeedMe website will be built using the LAMP(Linux, Apache,MySQL, PHP) solution stack. The basic components of LAMP include Models, Views, and Templates, which follows a Model View Controller architecture(MVC).

The model layer consists of the Linux(The operating system),Apache(The web server), and MySQL(The database). All of the data used in our website will be stored on the MySQL server.

The view layer mostly consists of the front-end code involved in the website. HTML and CSS are used to design each web page, and PHP is used to populates the information dynamically into html and then generate the actual html to be sent to the browser.

The controller layer, which talks to the model, would be HTTP GET/POST requests, as well as PHP quieres to our database.

2.2 Decomposition Descriptions



With a LAMP stack, your Operating system, Linux, is the base layer. The other three components are installed on the Linux operating system. Apache, your web server sits on top of your OS. Then, the MySQL database stores all the information served by your webserver(User/Web data), and PHP is used to drive and display all the data, and allow for user interaction. In relation to FeedMe, all of the web pages are dynamic, so PHP scripts send the data from the MySQL database to the website, which will be formatted by HTML and CSS code.

Each time a user is taken to a new page on FeedMe, an HTTP request is sent and a HTTP response and sent back. The Register page currently takes the information entered into the data boxes (Name/Username/Password/Years at UMBC) and is added to a table on the MySQL database. Then, a user can enter those credentials on the Login page and be successfully logged into the site. To accomplish this, the Login page sends a query to out SQL database to see if there is a match for the entered credentials. If the entered information is invalid, the user will be told and the Login process will fail.
In our final sprint (Spiral 3), the search bar will return the result of a query of all the web pages that have to do with the searched tag.

3. Persistent Data Designs

3.1 Database Descriptions

Table Name	Description
comments	Contains comments that are made by users (not implemented yet)
foodtagentries	Associates a foodtag with a restaurant
mstr_foodtypetags	Contains all possible food tags
mstr_regionids	Contains all possible regions
mstr_restaurant	Contains information about available restaurants
restaurantreviewscore	Associates a users review with a restaurant
restaurantscores	Associates thumbsup/down from users with a restaurant
restaurant_review	associates a restaurant with a review and a user
users	contains login and account information for users

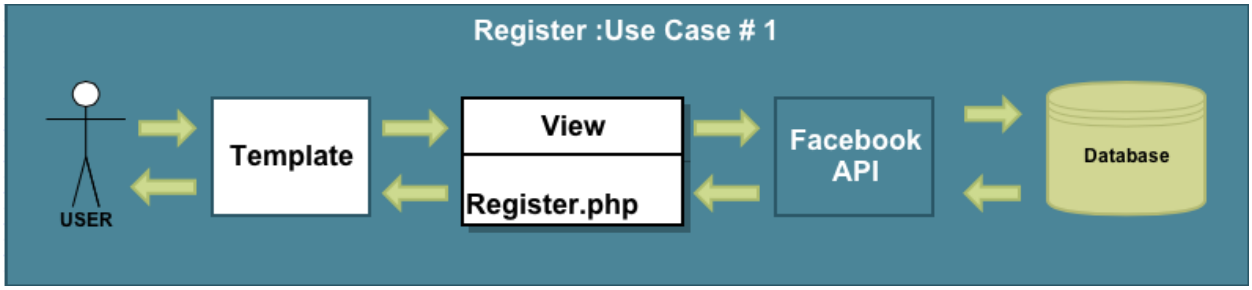
Please see DatabaseDesign.pdf for more detailed information about the database design.

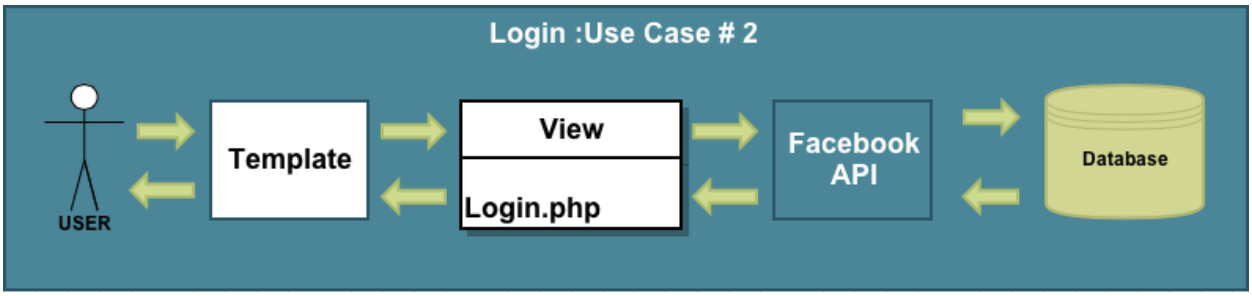
3.2 File Descriptions

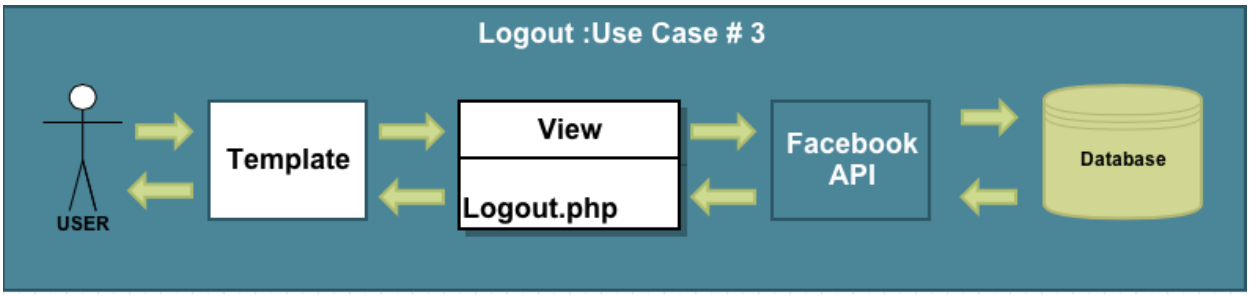
Description	File
Home page of the website	index.php
Contains the form for the registration page for the user.	register.php
Handles all of the logic for the registration page. Checks inputs to make sure they are valid and returns appropriate error messages. Writes valid input to the database.	register-exec.php
Contains the login form	login.php
Handles all of the logic for login. Inputs checked against the database to make sure they are correct for successful login.	login-exec.php
Contains the navigation bar and logic to display different links based on who is signed in. Displays users name and logout button.	navbar.php
Contains the logged in user's profile information	profile.php
Handles the logic for updating a logged in user's biography	profile-exec.php
Contains the database connection information.	params.php
Creates a connection to the database	dbconnect.php
Shows restaurant view and populates it with reviews	restaurant.php, restaurantTimeLine.php
Modal dialog for submitting a review	submitReview.php
contains the register-exec.php, login-exec.php, config.php and other scripts to handle login logic and form submission	scripts/
contains css files	css/
contains javascript files	js/
Contains any fonts that are used on the page	fonts/
contains any ajax scripts used	ajax/
contains all images	img/

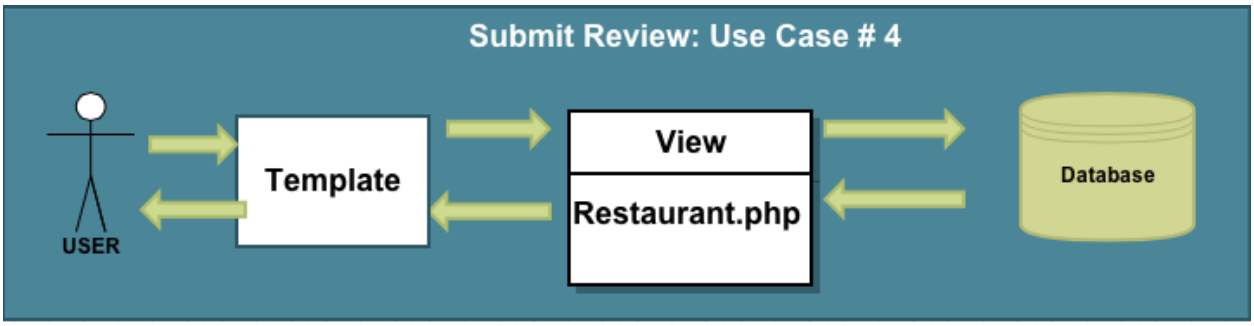
4. Requirements Matrix

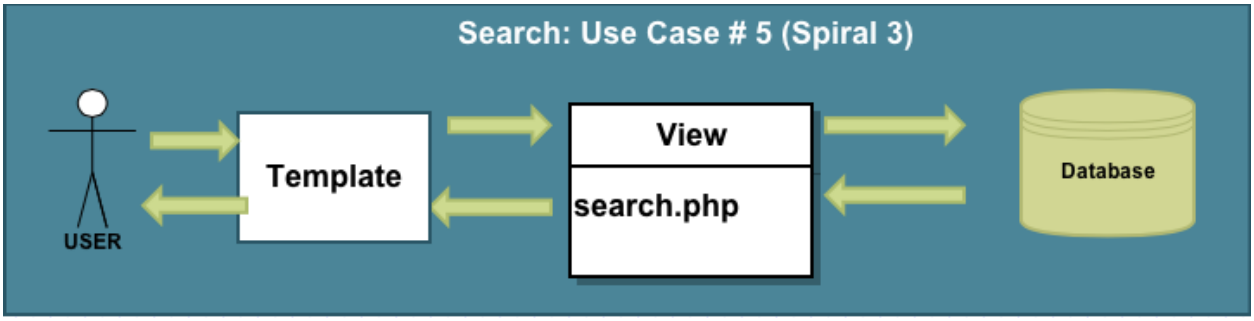
Please refer to the System Requirements Specification for details regarding the corresponding use cases.

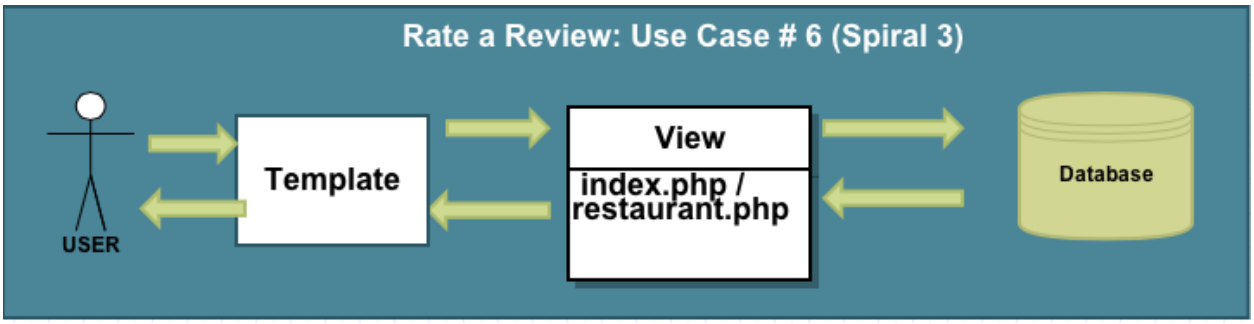


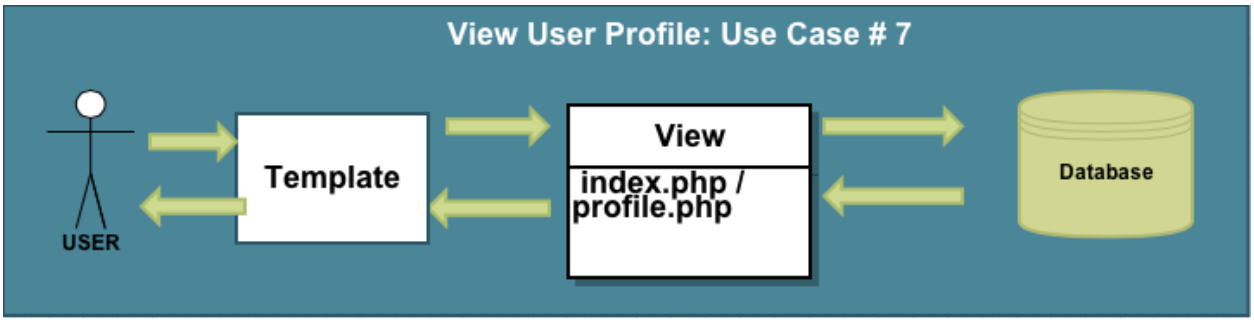









Rate a Review: Use Case # 6 (Spiral 3)
USER
Template
View
index.php /
restaurant.php
Database


View User Profile: Use Case # 7
USER
Template
View
index.php /
profile.php
Database

5. Appendix A – Agreement Between Customer and Contractor

By the end of Spiral 1, The customer requested that we have the login and register process/web pages working. See System Requirements Specification for more information. Additional features will be provided in further development spirals.

When and if future changes to this document occur a drafted new document will be created. Both a hard and electronic copy of both versions will be presented to the client for review. Upon approval, the draft will be finalized and signed off by both parties.

Client

Name _____ Date

_____ Print

Name _____ Date

_____ Signature

6. Appendix B – Team Review Sign-off

All team members have reviewed this document and agree on both the content and the format. Any disagreements or concerns are addressed in team comments below.

Name:	Date:	Signature (Print name)
Giancarlo Mogliazzi	04/13/2014	Giancarlo Mogliazzi
Minhaz Mahmud	04/13/2014	Minhaz Mahmud
Kiante Brantley	04/13/2014	Kiante Brantley
Seth Mosgin	04/13/2014	Seth Mosgin
Ines Ngassa	04/13/2014	Ines Ngassa

7. Appendix C – Document Contributions

Giancarlo Mogliazzi is the owner of this document.
Minhaz Mahmud - added file and database information
Seth Mosgin - added additional file descriptions