BdoMeals – Black Desert Online Meal Search and Calculator Application Design Document

Revision History

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| --- | --- | --- | --- | --- |
| **Date** | Revision | Author | Description | Document Tracking |
| 07.05.20  07.19.20  7.26.20  8.2.20 | 1.0  2.0  3.0  4.0 | Jason Butler  Jason Butler  Jason Butler  Jason Butler | Genesis | domain and service layer added  updated domain and service layer diagrams  updated busines layer diagram |
| 8.16.20 | 5.0 | Jason Butler |  | Updated presentation layer diagram added 2nd Use case |
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|  |  |  |  |  |

Contents

1 Introduction 4

1.1 Intent 4

1.2 High Level Requirements 4

1.2.1 Meal Selection 4

1.2.2 Meal Calculator 4

1.2.3 Registration 5

1.2.4 Authentication 5

1.2.5 Administration 5

1.2.6 Key Technology Standards 5

1.2.7 Future Enhancements 5

2 BdoMeal Use Cases 6

2.1 Intent 6

2.2 Customer Interacting Use Cases 6

3 Fully Dressed Use Case 7

3.1 Intent 7

3.2 Meal Selection Use Case 7

3.3 Meal Calculator Use Case 8

4 Class Diagram 11

3.1 Domain Layer Diagram 11

3.2 Service Layer Diagram 11

3.3 Business Layer Diagram 12

3.2 Presentation Layer Diagram 12

5 Summary 11

# Introduction

## Intent

This document details the requirements of the BdoMeals application along with two fully dressed use cases. Document also includes design details of the BdoMeals Application.

## High Level Requirements

Bdo is Black Desert Online which is a massively multiplayer online role-playing game. Meals refers to a cooking trade skill product in the game that can be sold for in game currency. There are Balenos meal, Calpheon Meal, Kamasylvia Meal, Knight Combat Rations, Mediah Meal, Serendia Meal, and Valencia meal. They all have their individual crafting components and number of needed craft components. The components and values will be based off the values on BDO Codex.com which this application is loosely based on.

The application is intended for players of the game that wish to look up the crafting components, the costs associated with them as inputted by the user, the cost of the meals once inputted crafting materials, and then the profit associated with selling the meal for its cost value.

During the pilot phase of this application it will be built as a windows-based java application. In this phase, all meals will be listed in the application and not searchable through a separate database. This means the users will have no search functionality and it will be simplified listings of the meals for the purposes of this phase.

### Meal Selection

During the pilot phase, there will be no authentication nor registration. The meal list will be freely available. You will be able to select a meal and see its crafting materials and see the option for crafting calculator.

### Meal Calculator

The process to get to the calculator will follow a similar process to meal selection but you will select meal calculator to go further. It will have an option to input the cost of the crafting material inputs and for the meal to calculate the profit if it is sold as a meal cost. Values are determined by the user because they are variable depending on the in game market.

### Registration

Customers will be required to register at a later date and be of a legal age since Bdo is a mature game.

Registration process will capture customer’s legal, first name, middle initial, last name, their email address, userid and a password. Registration process at a future date will be a minimum to access the features of the application.

Customer will be required to have the forgotten password sent to the email address on file.

### Authentication

Customers are required to have a valid userid and password. Login process will provide the ability request an email of the forgotten password to the email on file.

### Administration

An administrator who will update the application depending on the updates to the Bdo game files.

### Key Technology Standards

The process of registering and login will be on a secured channel.

### Future Enhancements

Future phase will extend this model to support registering and login.

# Fleetrental Use Cases

## Intent

This section lists the various uses cases pertained to customer interaction with the application.

## Customer Interacting Use Cases

Following are the customer interacting use cases by **priority**:

Meal Selection

Meal Calculator

Register Customer

Authenticate Customer

# Fully Dressed Use Case

## Intent

This section documents a fully dressed use case for selecting and looking at a meal. It also documents the calculator use case.

## Meal Selection Use Case

**Primary Actor**: Customer

**Assumptions:**

* Customer can access the list of meals and will select them depending on which one is desired to be created.

**Stakeholders:**

* BdoMeals wants to ensure that in the future phase that only registered customers access the application

**Pre-conditions:**

* For the pilot phase there isn’t any

**Post-conditions (Success Guarantee):**

* Customer is successfully chooses a meal.

**Flow of Events:**

1. Customer is is presented with a list of meals (Balenos meal, Calpheon Meal, Kamasylvia Meal, Knight Combat Rations, Mediah Meal, Serendia Meal, and Valencia meal
2. Each individual meal once selected has a different set of crafting ingredients

**ALT FLOW 2.A1 Clicked on meal doesn’t load the ingredients list**

1. When the selected meal fails to load, the UI present a message corresponding to the error:  
     
   Examples:

*“Selected meal failed to load, please try again”*

1. When successfully load of the meal happens a list of crafting material ingredients are listed for the corresponding meal according to the list of ingredients on BDO Codex.com which is based off of Black Desert Online’s game files.
2. UI presents the **Crafting ingredients and Calculator** screen with the following text:

**<Mealname> crafting ingredients and cost/profit calculator**

1. The ingredients for the designated meal will be displayed with an option to select the cost/profit calculator for the given meal which will be dealt with in the second use case.

## Meal Calculator Use Case

**Primary Actor**: Customer

**Assumptions:**

* Customer can access the list of meals and will enter in the costs in a text box depending on which one is selected in the first use case.

**Stakeholders:**

* BdoMeals wants to ensure that in the future phase that only registered customers access the application

**Pre-conditions:**

* Meal Choice is made in Use case 1 which loads a specific calculator for a given meal.

**Post-conditions (Success Guarantee):**

* Customer successfully gets profit amount

**Flow of Events:**

1. Meal choice is selected in use case 1

2. Frame opens with choices of input text boxes for values for the costs of the meal and the ingredients.

3. Enter long value of meal and ingredients in the given text boxes.

**ALT FLOW 3.A1 Entered value is not a number**

* 1. When the entered value is not a number the app doesn’t allow it and it gives a system warning beep

4. Hit calculate to get a profit window to come up with the given profit for the meal selected and the given inputs.

# Class Diagrams

## Domain Layer Diagram

A screenshot of text

Description automatically generated

## Service Layer Diagram

A picture containing screenshot

Description automatically generated

## Business Layer Diagram

A close up of a map

Description automatically generated

A close up of text on a white background

Description automatically generated

# Summary

This document details the requirements, highlights use cases and flushes out a fully dressed use case and design details of the BdoMeal application

- End -