

GBDA 301

# Food Frenzy

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## SECTION I - GAME OVERVIEW

### 1.1 Narrative

Children are constantly growing, as they age from toddlers to pre-teens. They can easily form poor eating habits if they are not taught what is healthy for their bodies. Kids need to learn about the recommended daily servings for each four food groups before they develop poor eating habits. This game will teach children from ages 2 – 13 the recommended daily servings of each food group, which will make them grow healthy and strong. Below is a chart referring to the daily servings.

	Children		
Age in Years	2-3	4-8	9-13
Sex	Girls and Boys		
Vegetables and Fruit	4	5	6
Grain Products	3	4	6
Milk and Alternatives	2	2	3-4
Meat and Alternatives	1	1	1-2

### 1.2 Game Overview

*Food Frenzy* is a 2D educational game for iOS and Android, designed to teach young kids about the recommended daily servings of each food group, according to Canada's Food Guide. In the top right corner of the screen, there will be a plate and cup divided into the recommended number of daily servings that represent the four food groups: fruits and vegetables, meat and alternatives, dairy and wheat.

### 1.3 Game Concept

During the game, parts of the plate and cup will be empty, which the player will have to fill up by catching the right amount of appropriate foods. The basket will change colours to match the food group that needs to be filled. If a player collects food from the wrong food group and

“overflows” a portion of the plate or cup, or collects junk food, then they will lose a health point. After losing five points, the player loses. After the plate and cup are filled, another section will become empty, which fuels the game until the player loses five health points. There is also a health bar at the top of the screen to indicate your health level during the game.

#### **1.4 Target Audience**

This game is designed for casual players ages 2 to 13. Our priority is to create a fun and intuitive game that any young kid can enjoy and learn about the recommended daily Food Guide Servings.

#### **1.5 Genre**

Food-based educational game.

#### **1.6 Game Flow Summary**

*Food Frenzy* has a no-win condition, allowing the user to continuously play the game until a consequence or fail condition occurs. A high score is tracked and allows for a competitive edge while learning about the food groups. Once all the food is snatched to the corresponding food group on the plate, the plate will reset and the process will begin again to fill the plate accordingly. Each plate filled is a score earned. The game will gradually get more difficult as the levels progress and speed up.

#### **1.7 Look and Feel**

The game will be made entirely of aesthetically pleasing, minimalist, and fun two-dimensional graphics. The background and colours will attract younger kids. Various game objects, background and foreground settings, will be entirely original content. The game will be optimized in a way such that players will be able to play with one hand, allowing ease and accessibility.

#### **1.8 Use of Blooms Taxonomy**

*Food Frenzy* uses the first three levels of Bloom's Taxonomy to ensure a successful experience for the user.

##### **Level 1: Remember (Knowledge)**

Players must recall facts and basic concepts before beginning to play. They must memorize the requirements of the game to ensure their long-term success. *Food Frenzy* requires the player to catch all the necessary food for each of the different food groups according to which one is indicated on their plate. For example, if Meats is highlighted, players must locate and identify which foods are meat and snatch them in the basket. *Food Frenzy* requires players to observe

and know the different foods based on their corresponding food groups. They must master the subject matter.

### **Level 2: Understand (Comprehension)**

Players will now have to interpret the information given and prepare for the next level. It is important for players to discover new ways to predict the outcomes of this game. Players must predict the consequences as well. For example, snatching the wrong food for the wrong food group.

### **Level 3: Apply**

Players have been given the information and understand how to interpret it. Players now have to execute what they learned to achieve a high score and have a successful experience. Identifying the components of the game will also lead to a successful game experience. Initially, after the players have implemented the knowledge and understanding, then they will be ready to repeat the process to learn about the food groups and have the competitive freedom to achieve a high score.

#### **1.9 Controllable Characters and Objects**

What will be controlled will be the basket. Players have the ability to turn it left or right. There will be food items randomly falling vertically down the screen.

## **SECTION II: GAMEPLAY AND MECHANICS**

### **2.1 Gameplay**

#### **2.1.1 Mission/Challenge**

The mission is to build as many plates that have the right proportion.

The challenge of *Food Frenzy* would be to fill up your plates with the right foods according to the food group basket and not snatch the wrong foods that will result in a consequence. As the levels progress the speed and obstacles will become increasingly difficult.

#### **2.1.2 Game Progression**

After each catch of the correct food, one of the thirds of the plate will gradually get full (collect 5 meats items, 8 veggie/fruit item, 1 dairy item, and 6 grains/wheat items). It will go in order

from meats, veggies, grains, and dairy. When the plate is full, the plate will clear and then do the same thing, but there will be more food items falling and the speed would increase each time the plate get full then emptied.

### 2.1.3 Objectives

The objective of the game catch as many food to the group that is highlighted on the plate to fill.

### 2.1.4 Play Flow

Main Screen > Start Game > High Score or Lose > Continue/Exit or Replay

## 2.2 Movement and Mechanics

The core mechanic of the game is to catch food to the according food group on the bottom of the screen controlled by your finger.

### 2.5.1 Navigation

Players will simply use their hand to interact with the buttons on screen (iPhone or Android) to move the basket left and right on the bottom of the screen.

### 2.5.2 Controls

The game is developed for the iPhone or Android and is specifically designed to be played entirely with a single hand. To ensure this, the controls for the game have been implemented such that they are within range of the average person's thumb located closer to the bottom of the screen. To maneuver the basket horizontally, the player must drag the platform from the center area left or right to catch the according food.

### 2.5.3 Pause, Saving, and Replay

There will be no pause button or saving as this game is based off speed and timing.

## SECTION III – INTERFACE

### 3.1 Control System

*Food Frenzy* uses the iPhone or Android touch screen to navigate around the game. A simple tap on the screen will suffice in choosing items on the menu or to play the actual game.

### 3.2 Graphics User Interface

#### 3.2.1 Menu

Menu will consist of a simple screen with the bare minimum/minimalist and colorful feel to it.

### 3.2.2 Camera

*Food Frenzy* will be played from a front view perspective. The camera view will remain static throughout the game. Only the front of the food items and a basket will be visible during gameplay.

## 3.3 Audio

### 3.3.1 Soundtrack

Very upbeat melody. Main melody is around 15-20 seconds, which will loop continuously throughout gameplay.

### 3.3.2 Sound Effects

- Upon food entering the basket – slight “Ching” sound
- Winning and Losing sound effects

## SECTION IV – GAME ART

### 4.1 Concept Art

Concepts for design and art in this game have already been started, along with the base graphics for the game itself. Main use of program is Photoshop/Illustrator.

### 4.2 Style Guide

The game features colored background sets of food places with a graphic style to it. Most of the graphics will be flat, with a two-dimensional look.

### 4.3 Objects

#### 4.3.1 Food

There will be multiple food shown during the game and on screen at one time. Every food item will be different in design, in a cartoon feel design.

#### 4.3.2 Basket

The Basket will be our main “character” in this game. It will be a shopping basket that will be moved side to side catching food; located on the bottom of the screen.

#### 4.3.3 Plate



Simple circle and cup, it will be split into 3 parts according to the Food Guides proportion guide plus a glass next to the plate.

#### 4.4 Background

Each level will have one static image for the background. The background will correspond with the food group labelled on the basket.

#### 4.5 Skills used

Graphic design skills were used with Adobe Illustrator to create the food and basket icons, and to put together the entire screens. After exporting the screens as .PNG files, they were placed into a .PSD mockup file so that they could be visualized on an iPhone.



