

FINAL FANTASY

(PROJECT PROPOSAL)

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Final Fantasy is a cooking-based card game where players seek to combine the ingredients found in their deck into the tastiest combinations in an attempt to impress the judges and best their opponents.

Game Play (at a glance)

Game play in Final Fantasy derives from the central premise that the two players are chefs racing against the clock competing to create the tastiest meals. Due to the premise of the game, we have had to scratch many conventions of the CCG genre and re-imagine many others. Perhaps the most notable change is that unlike games such as Magic The Gathering or Yu-Gi-Oh, players are not engaged in direct combat. Instead they seek to combine their cards in interesting and novel ways to have a better tasting (read higher scoring) meal than their opponents. To encourage experimentation, there will be no limitation on what combination of ingredients the player can put together. Care will be taken to scour through recipe books and find unique dishes that will be programmed in to the game alongside more standard dishes like Spaghetti Pomodoro!

While the player may not be limited by what *can* go together, they will be limited by what ingredients go well together. Just because the cards *Salmon* and *Milk* can be combined into *Salmon-Milk*, doesn't mean it will be wise for the player to do so. The deterministic nature of computing means that only a small subset of all possible combinations will be recognised by the game as being valid. These "meals" will be programmed into the game and carry with them strong stats and may also have other mechanics that will be in some way beneficial to the player. Invalid combinations, meanwhile, will carry no such benefits and may, in some cases, like the *Salmon Milk* above, carry stiff penalties. It will be up to the player to utilise their deck effectively to create a winning combination before the clock runs out!

A Novel Idea

The main conceit of Final Fantasy is not new to either card games or video games. Games like "Dinner's Ready" and "Cooking Mama" have explored game-play revolving around cooking but in our opinion they haven't been able to capture the creative nature of cooking. We believe that the player being limited by what is in their hand along side the aforementioned freedom to try anything the player wishes will encourage exploration and the more one plays the game the better they will learn what combinations of ingredients make winning meals. It is also our hope that learning of good combinations won't just encourage the player to try those combinations in game but also perhaps try it in their own kitchen as well! To further encourage this exploration, we will be looking into ways of implementing a sort of practise mode. This allow the player to play games of solitaire where they can fine tune their decks without having to risk losing a competitive match.

In addition to encouraging creative play, we also feel that the game's scoring mechanism will address some of the issues that many other competitive card games have. In Final Fantasy, each player's meal will be evaluated by the three "judges". Each of them will be biased toward one flavour (e.g. spicy, umami). Two of the judges will be transparent in their biases while the third will say little before the match. This differs from games like Magic where every match (in most variants)

has the same objective (in Magic's case reducing the opponent's life to 0) and in our opinion it will prevent any one type of deck from becoming more powerful than the rest. To be a strong player one will need both a deck that is balanced but will also need to know how to get the most out of their deck in any situation.

Game Play (In Depth)

(NOTE: A lot of the numbers in this section are subject to change as we will do a fair share of fine tuning so that the game is well balanced in terms of difficulty while still capturing the frantic pace of a kitchen in crunch time. Furthermore, all descriptions of gameplay will pertain to the main, multiplayer game mode.)

In order to provide a good idea of game play we will first sketch out the flow of each round. We will then supplement this with details about the “game board” as well as an overview of the four different kinds of cards in the game as well as some of the mechanics that we have discussed being attached to those cards.

Once two players decide to enter a match, they will begin by, selecting which the deck they would like to use. In a full release, this will be one the player has built through cards that they have acquired (in some sort of campaign mode) but in this version of the game they will select from a couple of premade decks. Once they have selected their decks, the three judges will be introduced. The two judges who make their preferences known will give a bit of flavour text detailing what they might be looking for, while the third will remain silent. After this, the match will begin. The players will then have ~3 minutes to create the strongest meal that they can with the cards at their disposal. In many ways, the core game will be akin to a competitive solitaire. While most actions a player takes won't directly impact the other player, we have been considering some mechanics which allow a player to directly gain an edge over their competitor (these will be discussed later when we preview some of the mechanics).

Since the game is against the clock, the structure will not be turn based. Players will have five cards in their hands and can either choose to play them (in the correct areas) or, should a card not be useful to the player, discard them. Once the player has 2 or fewer cards, they will be able to draw up to their limit. Some cards may alter this slightly (allowing the player to draw an extra card, etc) but, these effects would be dependent on one playing a card which allows them to do this.

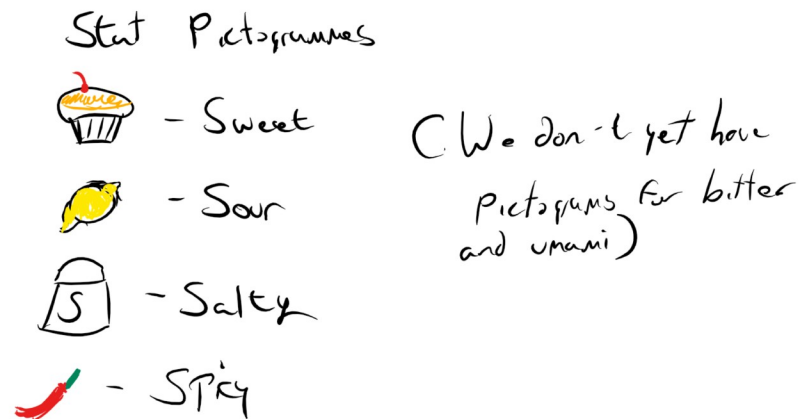
As the clock ticks down players will race to assemble a winning meal. Playing cards they think will help them and discarding the rest. Once ingredients are combined the cards are removed from the game and a meal is stored in either the judging area (if it is empty) or an open meal slot. As a result, the player will have to weigh a lot of decisions: “*Should I combine my rice with beans now or should I hold out hope that I will get a tortilla to make a burrito?*”, these are the kinds of decisions we hope to get the player thinking about. Furthermore, the player will have to keep close eye on what is actually in the judging area as time winds down. Since the first meal made is sent to the judging zone, they will have to ensure that what they actually want to have judged is what is being judged.

Once time expires, the scores will be sent over the wire and then each judge will evaluate the

food. The stats will be sent through each judges algorithm and the player who gets the highest score from each judge will win the favour of that judge. The player who wins the favour of at least two of the three judges will be crowned champion!

This is the broad strokes of the game but, we would now like to detail both the five stats kinds of cards as well as the play space of the game.

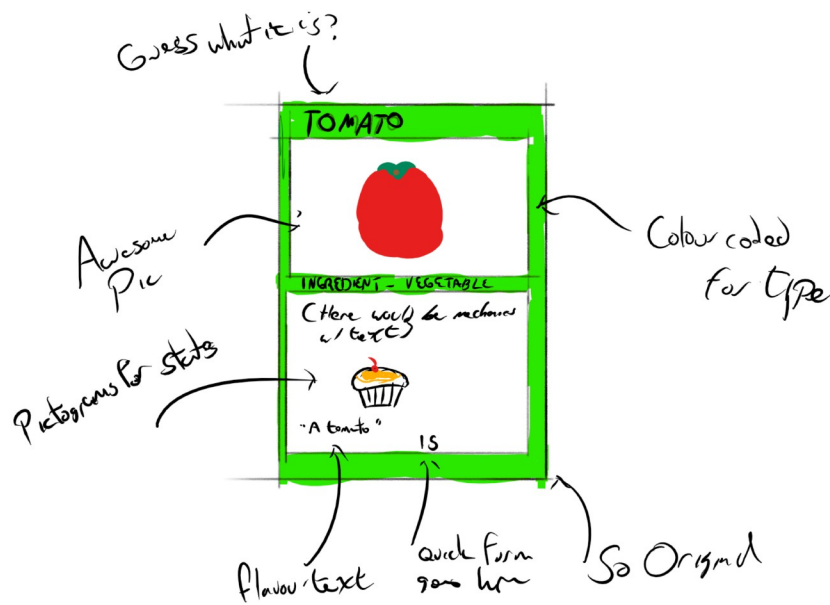
The Stats



The above pictogrammes are intended to represent each stat to the player in a clear and concise way!

Each ingredient, meal and condiment card will carry a flavour profile. A collection of six stats that represents the flavour of each ingredient. The stats will represent Sweet, Sour, Bitter, Spicy, Salty and Umami. Meals that are valid combinations will not only have stats that are the sum of their parts, but will also carry additional stat bonuses on top of that. As mentioned previously, each judge will have flavours that they prefer and as a result from game to game, the kind of flavours which a player wants to bring out in his food will also change. Due to this, a well constructed deck should at least have some level of balance between the five flavours to provide the player as much versatility as possible.

The Cards



The star of any card game is obviously the cards. Presently we have developed four main categories of cards and are working on figuring out if there is a need for a fifth category or not. The four categories that we have developed are as follows:

- *Ingredients:* These are the base of the game, they can be combined with any list of other ingredients to make meals. Each ingredient will have a collection of the six stats and some, often higher quality, ingredients will have certain mechanics attached. Where applicable these mechanics will be carried through to any meal made with these cards
- *Meals:* Creating strong meals is the goal of each player. Like ingredients, meals will have an assortment of stats as well as mechanics inherited from ingredients (as well as some new ones). One of the features of this game is there is... a functionally limitless amount of meals that can be created as any combination of ingredients is valid. Only a small subset of those combinations will be “worth” making though. Most meals that have nonsensical (or unknown to the developers) combinations of ingredients will carry negative side effects while others (those explicitly designed by the developers) will not just inherit stats from their ingredients but also carry some extra stat bonuses as well! For the most part what is and isn’t a good meal will be left up to the player to discover as they begin to master the game.
- *Tools:* Tools are cards that bestow certain global effects on all meals created while they are in play. They provide a way for a player who is using a strongly optimised deck to push their abilities just a little bit farther. An example of a Tool card would be something like a “Wok” which would provide a stat bonus to all stir-frys made when the card is in effect. Other tool cards may be a two edged

sword. A card like “Deep Fryer” will grant strong bonuses to all fried meals but would nerf meals from other categories.

- *Condiments:* If we work with the analogy that meal cards are our “monsters” condiments are the equipment cards. They can be attached to meals and will provide small stat bonuses and other effects. Certain meals gain extra bonuses from some condiments as well. A burrito will benefit greatly from Green Chile Sauce so the normal effects of the chile sauce will double.
- *Other:* We are currently weighing the merits of creating a fifth type of card that would allow the player to do things like search through their deck or draw an extra card. We will focus on making the four core types as fun and well realised as we can though and it is likely that a fifth category be made if we feel that there is something that the core game does not address.

The Board



This is a rough sketch detailing the layout of the screen in a functional manner. The icons at the top of the screen will let the player know a rough estimate of the stats of the meal in the “Judging Area”

The game board will have four or five main areas (depending on how you think of it). In addition to this, the player will have a hand (with a maximum of five cards) as well as a pantry (deck) where they draw cards from and a compost bin (where discarded cards wind up). A detail of the game board is presented below:

- **Mise Ensemble (5 slots):** This is where the player will place ingredients you want to use in the creation of meals. The first two slots will be stackable, and can hold any number of ingredients, stacked up. This will allow the player to assemble meals. Once two ingredients enter these areas, a “Cook” button will appear. Should the user click it, the cards will combine and then the result will appear in one of the two “Meal” Areas. The other three zones are “free zones”. These slots can only hold a single ingredient or condiment card. Depending on which is clearer to the player, we may split this into two zones where one is for meal preparation (the stackable slots), while the other is for storing ingredients.
 - Should a card with a burn/al dente mechanic enter the Stackable Zones, a timer will begin counting down as a result of the mechanic. As a result, a card like *Spaghetti* which may have the al dente mechanic won't actually trigger the effect if the player sets it aside for later.
- **Tools (1):** This is where the player can play a tool card. All meals made while a card is in this zone will have the effects specified by the tool card (if applicable).
- **Meals in Waiting (4-5 slots) -** These are all the meals the player has made but has not decided to submit for judging.. Players can attach condiments to meals in this zone and they can swap it with the card in the “Submit for Judging Category” to submit any given meal for scoring.
- **Submit for Judging (One Slot):** This is the meal the player will submit for judging. At the end of the game, the card in this area will be the one sent in for judging. Like with meals in waiting, condiments can be applied to cards in this area. Also worth noting, the stats at the top of the screen reflect the stats of this particular meal.

Some Mechanics

Currently we are aiming for four to six card mechanics which will spice up gameplay and add greater heterogeneity between cards aside from just their stats. At present, we do not have a finalised list of mechanics which we would like to implement but we have had a couple of meetings on the issue and each team member has been tasked to come up with some ideas for mechanics. Currently, we have three that we are considering to add to the game, they are as follows.

- *Al Dente / Burn:* A mechanic where the player has to finish a meal on a secondary timer. The Al Dente version of the mechanic would give a reward for finishing within the allotted time limit whereas the Burn mechanic would give a penalty for not finishing in the allotted time. This plays an additional role in giving the player reason to try to get the right cards! This would introduce added pressure which could potentially lead to great reward
- *Overpowering Flavour -* In lieu of combat, some foods that use high quality ingredients... or are otherwise intricate would cause judges to undervalue certain aspects of an opponent's dish. This allows a player to have an impact on

their opponent's dish!

- *Special Ingredient* – Allows the player to search through a deck to find an extra ingredient and add it to play. It may be wise to have cards with this mechanic if you are to rely heavily upon cards with the burn or al dente mechanic.

Development Tools and Release Platforms

The game will be developed in the Unity Engine and as a result core game logic will be written in the C# programming language. Unity is not the only tool we plan to use making the game. To reduce the workload on the (already overworked) student-developers, we will be developing a small suite of utility programs and scripts that will reduce a repetitive workload. An example of a script that we have already begun work on would be a tool that reads an Excel file containing card information into a JSON database that can be accessed by the main game. This way, updates to the card list can easily be done in excel then those changes can be quickly reflected by a new build of the game. The majority of these scripts will be written in Python as the high-level library support, ease of programming and interpreted nature of the language means that such utilities can be developed and deployed rapidly and more of our time can be devoted to the main game.

Currently, we have yet to consider other tool-sets, especially those relating to art and music development. Our current approach is to make a *FUNctional* (groan) game first. Only when we have a build that plays well will we focus more effort into beautifying the game. As a result, this will be a bridge we cross later on.

While we recognise that this game would be well suited to platforms with touch screens like iPad and Nintendo 3DS we have opted to keep things simple and aim for release on Windows, MacOS and Linux.

Group Organisation

Taking the role of project lead is Rocky (Michael) Petkov. In this capacity, he will oversee all development activity and ensure that the team maintains a tight focus and stays on track with regard to their deadlines. In addition to being the project lead, his main area of focus will be on designing the game's core architecture. Much of this work will be focused on developing a platform which minimises the work of the other two developers either through the creation of utility scripts or working on a game architecture which allows cards to be assembled in a modular fashion based on their stats and mechanics. In addition to this, he will focus on writing the NetCode for the game. He has some prior experience with networking games due to ongoing work on his bjNET project which will allow players to play games of blackjack in a chat room like environment online. In addition to these responsibilities he will act as a programming resource for the other two members of the team.

Andrew Liu, meanwhile, will handle creation of the user interface. This includes ensuring that all UI systems work in a responsive and clear manner and communicate with the central logic of the game. In addition to this he will assist Rocky in the development and implementation of core systems and networking code. The final member of the team is Katherine Le who will be

responsible for some of the development of utility scripts as well as assisting, where needed, on core game systems. In addition to their programming responsibilities all members will be responsible for designing card mechanics and coming up with cards to add to the game.

Presently, the group will meet twice a week. One meeting will be to set goals for the upcoming week as well as discussing design directions. The other meeting will be a shorter meeting where any issues are brought up, discussed as a group and any predictions regarding completion time will be amended. Currently, exact meeting times are being worked out as each member finalises their schedules and commitments for the semester. Other steps taken in the facilitation of communication and collaboration include the creation of a Facebook group chat as well as the establishment of a Github repo so that not only can code be shared but individual contributions can be tracked so we can have a better sense of who is handling what. In addition to this, a central design document has been created. This is intended to be a living document where we can also track what has to be done and what has already been done.