

# ICO GAME DESIGN SPECIFICATION

## BACKGROUND

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As part of a wider package of external support to accompany the introduction of the age-appropriate design code, ICO procured the support of Fundamentally Games to help draft a product specification for a fictional online, mobile app-based game that the ICO can use to develop a sample gaming DPIA. The sample DPIA will be for demonstration and learning purposes only. The product specification produced through this procurement will not be developed into an actual game.

Fundamentally Games (FG) assists game creators to design, commercialise, release and support games. Our goal is to enable you to deliver your vision, and therefore our proposition is setup to enable and support that, whilst providing our knowledge and expertise to help to deliver the most effective game possible and run it in live.

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# GAME CONCEPT DESIGN

## OVERVIEW

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You are a chef, pulling together ingredients from 2 conveyer belts, each ingredient has an associated number, and you are trying to make the number shown on the empty plate of a customer. But you better be quick because customers are queuing up to be served!

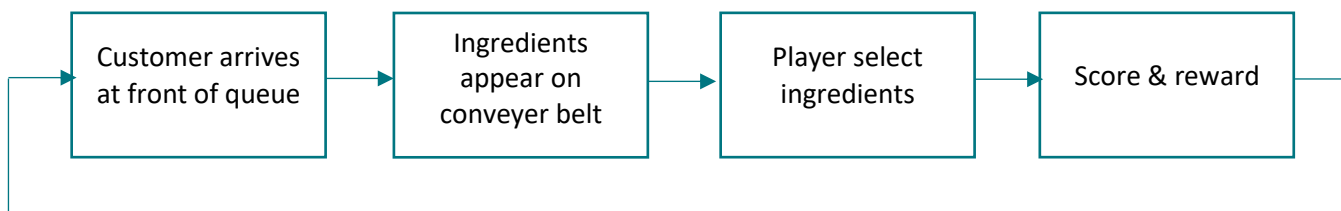
Merges two ingredients to make the correct value. Numbers can be positive or negative and some ingredients can also be math functions such as multipliers or dividers. If you miss ingredients they fall into the trash and too many lost ingredients trigger a fail condition.

- **Game name:** Cooking Numbers
- **Short description and strapline:** In Cooking Numbers you are the head chef in a conveyor belt restaurant! Create as tasty food dishes as possible with the ingredients you are given, solving simple maths problems on the way. Keep your customers happy and don't lose ingredients! How many tasty meals can you make?
- **Genre(s) or sub-genre(s):** Merge
- **Platform(s):** iOS App Store & Android App Store, Amazon App Store
- **Target audience(s):** Five– Eight year-olds, all genders
- **PEGI rating:** 3 (suitable for all age groups)
- **Business model:** IAP + ads + subscription
- **Languages:** EFIGS

## CORE GAME FEATURES

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The core game features can be defined through this loop. The player will replay this loop as they progress through the game. There is no end – there will always be opportunities to replay and progress with different variations in gameplay that keep it challenging and fun.



### Customer arrives at front of queue

The gameplay loop starts with a customer arriving to be served their food either by the player or by an NPC (non-player character). The NPC is introduced at the start of play in a way which establishes rivalry between the player and the NPC.

Each customer presents a plate, on which is a number – this number tells the player what ingredients they need to provide, to fulfil the customer's order.

As the game progresses, customers queue up more quickly.

### Ingredients appear on conveyor belt

Whilst customers are arriving, ingredients are appearing on two conveyor belts. Ingredients appear continuously and once they reach the end of the belt, they fall into the trash.

Each ingredient has a number or math function on it. These numbers can be positive (e.g., +1) or negative (e.g., -1) numbers, or functions such as addition, subtraction, multiplication, division.

As the game progresses, ingredients will come out more quickly and the player must grab the ones they need before they fall into the trash.

### Player selects ingredients

The player must select the correct ingredients for the customer order, to make the number on the customer's plate.

For example, the customer's plate says 5, then the player can choose 3 ingredients, in order, as follows:  $2 + 3$

As the game progresses, difficulty increases by:

- the conveyor belts moving faster, giving the player less time to think before risking losing the ingredients, and
- equations required to fulfil the customer's order getting more complicated

As the game progresses, more customers queue up, and the player must serve the customers quickly enough before:

- the queue gets too long
- the NPC serves them instead, or
- the trash gets filled up by missing too many ingredients

Throughout the entire gameplay, the player is competing against their NPC Rival. The NPC's animation shows them working off screen and gaining a score through those unseen actions. This score is based on weighted average data from other players. However, if the player takes too long to resolve a customer's order, the NPC will be shown as fulfilling that customer's order, boosting their score further. This means that the player ends up not only missing out on the potential score but the NPC 'steals' that Customer. The particular customer in the queue that the NPC is about to serve will be foreshadowed with a 10s warning prior to conclusion.

### Equation examples

Easier levels may start out by simply requiring the player to select numbers, and pre-defining addition or division. For example, the customer's plate says 5, and the player is told the function is addition, so they just select 2 ingredients:  $2, 3$

More complex levels start to include functions, for example, the customer's plate says 9, the player has two options to choose from, from the ingredients that appear:

Option 1:  $2 * 6 - 3$

Option 2:  $3 * 3$

### Themes

The Theme of the restaurant will change every month, for example, January 2022 will be Dinosaur theme, with all the characters, backgrounds and ingredients being Dinosaur-related, February 2022 will be Farm Animal theme, with the player as a farmer, and the customers pigs, cows and chickens, and March 2022 will be People theme, with the player as a Head Chef, and their customers firemen/women, policemen/women, doctors etc.

These Themes also include:

1. Some narrative to give context for the player, conveyed through graphics and animations
2. Specific functions (e.g., one theme may include division, another multiplication)

3. Theme specific achievement badges
4. A new NPC (non-player character) character to play against

In future, Themes could be implemented in partnership with a brand e.g., the Peppa Pig Theme

### Scores and Rewards

Players build up 'Happy Score' per Theme, as they complete more orders, based on:

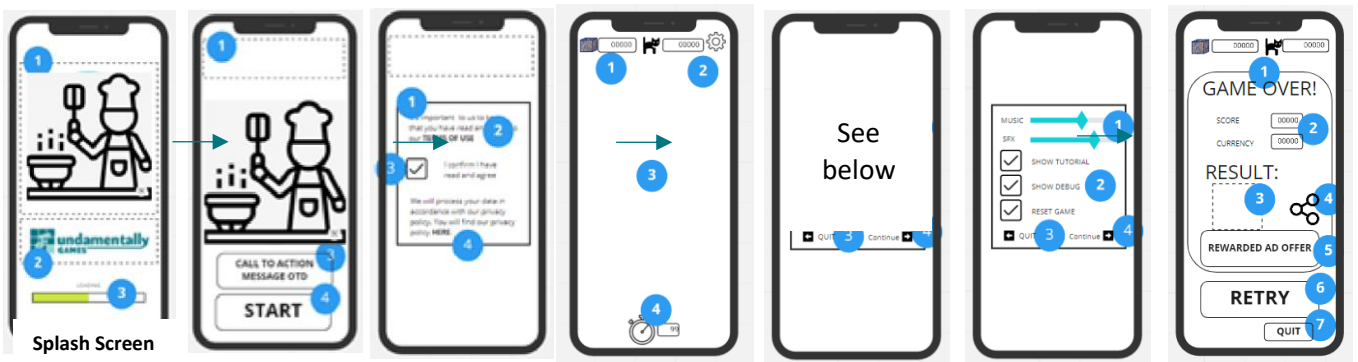
1. Accuracy
2. Speed
3. Number of orders fulfilled

At the same time the NPC character builds up a score based on statistics of real player scores.

When the gameplay ends, the player gets the following:

1. Their Happy Score
2. Comparison against the NPC score
3. Highlighted info if they have
  - a. beaten their previous best Happy Score for that Theme, or
  - b. beaten their previous best Happy Score across all the Themes
4. Their rewards
  - a. Option to share their success with friends (see Social section below)
  - b. Achievement badges

Players will get informed regularly about daily challenges, events, promotions, new content and features, and new Themes (see LiveOps section below for more details).



## KEY GAME SCREENS

### Splash Screen

The game will include a splash screen that communicates the name of the game and developer, as well as an image reflecting the content of the game.

There will be a loading bar animation showing any status changes that need to be monitored prior to the start of gameplay

Screen auton Start Screen € Parents Overlay t! Gameplay Screen Terms of Use & Privacy Overlay Settings Overlay Game Over Overlay Screen Screen Screen

### Start Screen

The start screen includes the name of the game, as well as an image reflecting the content of the game. Additionally, there will be the addition of a placeholder 'Call to Action' message of the day which is tied into announcements of daily challenges, new Themes, etc (see LiveOps section below).

The Start Game button will include a default animation behaviour which will be used for every button interaction that isn't specific to gameplay.

Screen will also include a PARENT Button which takes them to the Parent section.

### Parents Overlay Screen

There will be an overlay that appears on first play only, specifically aimed at communicating the information needed for parents such as key child safeguarding highlights.

For clarity, this is an information only screen. It includes:

1. Informing the parent that the game is gathering performance data, for the purposes only of making sure the game is working properly and that is completely anonymised (see Data section below)
2. Also informing them that the game doesn't gather any other information on the player and that all billing, subscription information is held by the device platforms, not us.
3. Explaining the monetisation methods in the game and how it works
4. Contact information to contact us about any concerns or report any issues including accidental payments
5. Easy access to device notifications
6. Terms of use and privacy policy
7. History of gameplay to date (importantly including social interactions)

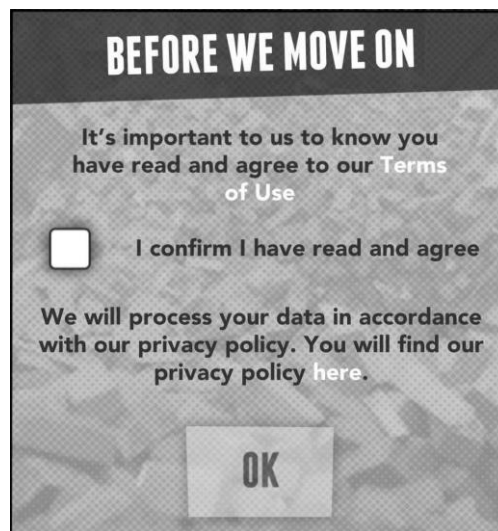
## Gameplay Screen

Pressing 'Start Game' on the Start screen loads the Gameplay screen.

This screen will also include a pause button, to allow pausing of gameplay at any time, where the player can exit the game and return later to continue from where they left off.

## Terms of Use and Privacy Policy Acknowledgement Screen

This screen asks the player to confirm they have read the Terms of Use and Privacy Policy, which are linked from the screen. These should be written in language that clear for the player. This is how we plan for the screen to be worded and laid out:



## Settings Overlay Screen

The Settings overlay will include the elements needed to manage gameplay and debugging/testing, including access to the Parents Screen and any relevant game specific settings e.g., sound and music levels as well as access to terms of use and privacy policy, as well as a button to easily report any issues in the game.

## Game Over Overlay Screen

Game Over is an overlay which goes on top of the Gameplay Screen where the game completed. It consists of the following:

- i. Game Over message
- ii. Their Happy Score
- iii. Comparison against the NPC score
- iv. Highlighted info if achieved a new best score (if any)
- v. Share – a button to share success with their friends (see Social section below)
- vi. Achievement badges
- vii. Rewarded Ad Offer (occasionally) – 1-time access to another theme
- viii. Retry – Quick restart option for the selected game mode.
- ix. Quit – returns the player to the Start Screen
- x. Later we will look at more complex versions of this screen including Unboxing but for now the screen will have limited effects

Each play session is likely to be less than 90 seconds, at which point the player will have the option to Quit or Retry from this screen.



## MONETISATION

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Cooking Numbers will have 3 forms of monetisation.

It will be free to download and access – there will be no ‘pay to win’ elements and at no point will a player be blocked from playing because they don’t pay, payment will always be optional.

The game will be monetised as follows:

1. Rewarded video (opt in) ads
2. In-App Purchases (IAP)
3. Subscriptions

All payments will be managed through the App Store payment systems and will therefore be subject to the parental controls of the devices (iOS/ Android), which includes ability to have to approve any payments to be made.

### Ads

Due to the audience being children, the use of ads will be limited and implemented in a way that is suitable for the audience.

Advertising Inventory will be to get temporary access to another Theme (a Theme which is not the Theme of the current month).

Ads will be limited, so once a player has used an ad, they will not get displayed another one for a certain amount of time (e.g., max 1 per day or hour).

Additionally, ads must:

1. Clearly differentiate end of play and start of advertising
2. Only contain ads/brands suitable for audiences – ads will be served by ad provider who specifically serves ads suitable for children, in this game that will be Super Awesome (<https://www.superawesome.com>)
3. Have no call to action/direct action required of the player
4. Only be served triggered by gameplay, they will not be contextual nor will be triggered from specific user behaviour

### In-App Purchases (IAP)

In-App Purchases will be for one purpose only – to purchase permanent access to a Theme. This means that the player will always be able to play that Theme, no matter whether it is the Theme of the month or not.

Each Theme will be purchased for a one-time cost. Cost per Theme may vary. At certain times, promotions will be offered to encourage purchasing e.g., 50% off, limited time offer.

### Subscriptions

A subscription option will be available. Subscribers will get access to new Themes before other players and will get to access all released Themes permanently (whilst they continue to be subscribed).

The subscription will be a monthly fee.



## RETENTION

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The key features designed to retain users are:

1. **Competition:** playing against the NPC rival to try to beat their score. The NPC scores will be based on statistics of real player scores and the players progress will be represented through a leaderboard against the NPCs.
2. **Themes:** these will create a sense of purpose and progression, with new challenges, reasons to come back regularly, specific achievements to collect and narrative.

## SOCIAL

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The social features in this game are that players can share their progress – a three second animation of their gameplay, along with their score (against the NPC), achievement badge(s) unlocked and emoticons.

The emoticons players can access are fixed selection by the game but will include variations and unique options tied into each Theme the player has access to.

This share will go out only to the player's Family Circle – specific players who have been approved by the parents. This parental lock will use the device requirements, for example on iOS it will use Game Centre, where parents can lock controls so that only they can approve users for their child to interact with.

Note: if the device does not have a similar system, then the social features will not be enabled in the game – although in future we may look to build our own parental lock system within the game and then consider expanding social features within this.

## FIRST TIME USER EXPERIENCE (FTUE)

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Please note that under this section, we also include STUE (second time user experience) and LPUE (lapsed user experience).

The FTUE, STUE and LPUE are defined through specific flows and tutorial information provided to the user to teach, or remind players, about features in the game as they progress through their player lifecycle.

It will also have the following key purposes:

1. Have a Parental button, that comes up during FTUE, encouraging the player to get their parent to look at it.
8. Ask the player to 'opt in' to device notifications (easy to change in settings).
9. Inform the player that the game is gathering performance data, completely anonymised.

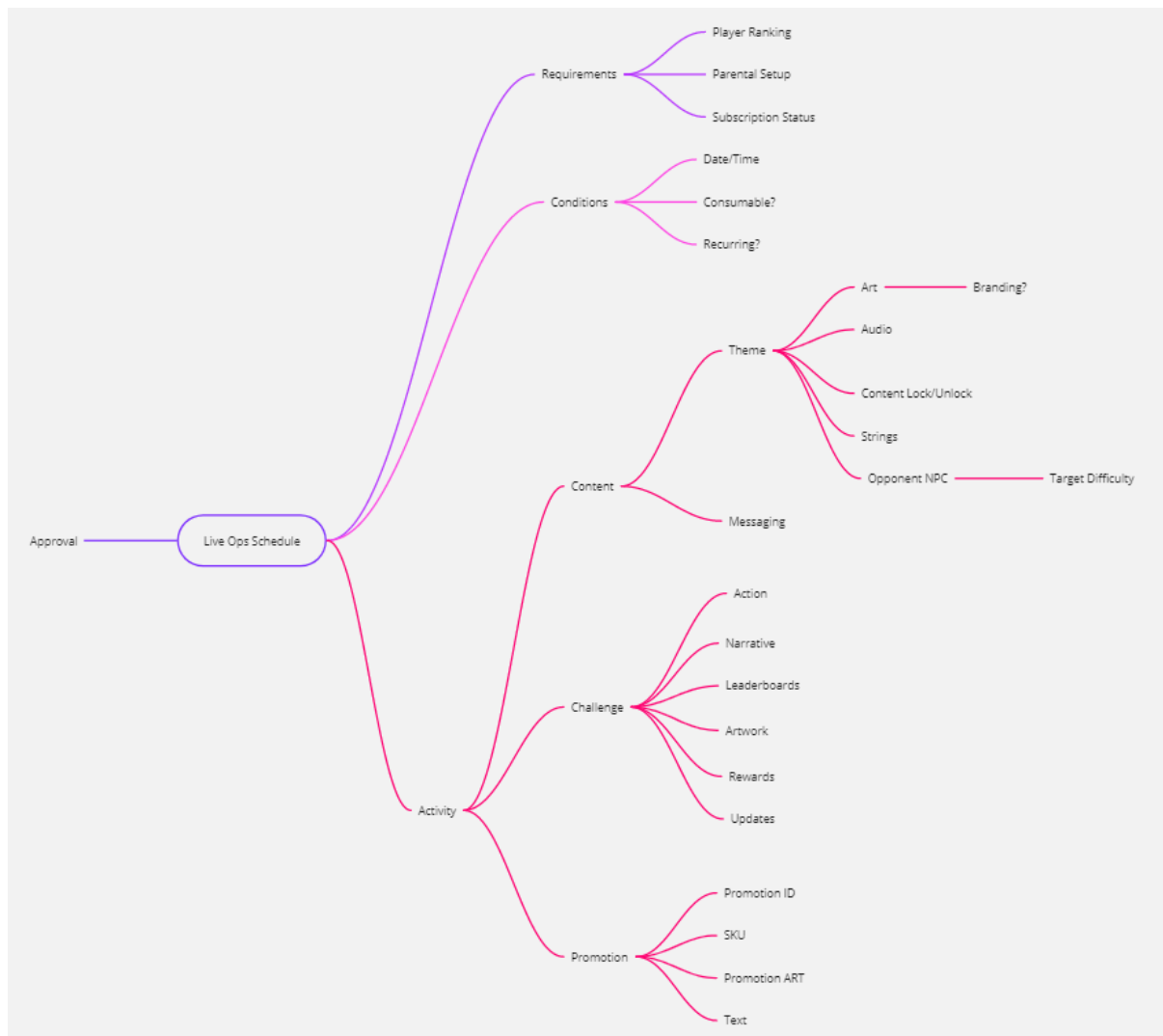
The game requires a number of server-side held variables stored on Playfab (third party) platform. As well as gameplay functionality supported by these tools, the following server-side variables will be managed by members of the community team.

We should note that whilst we have done our best to include all server-side variables here, more may be required, particularly as the game evolves.

For clarity, all variables must be stored on the server even if they are not included in this list.

### Structure of Event Configuration

This is not an exhaustive config structure but provides a visual example of what goes into an event. Over time the events designed may necessitate additional controls within the structure.



1. **Approval:** All events should be flagged as approved once they have been audited by a controlling body such as a supervisor or designer. This ensures that events do not go live with conflicts or broken properties.
2. **Requirements:** Requirements are the first step in surfacing events. From here a LiveOps designer can determine who qualifies for the event. We do this so that events can be targeted and provide meaningful content to people at different stages in their player

lifetime and in the case of a game for a child audience this include the Parental control setup.

3. **Conditions:** Conditions are used to setup the triggers for the event. These determine when the event starts, when it ends, whether is a recurring event, or if there is a limited number of times a user can take part. These factors will modify the context of the content.
4. **Activity:** This is where the meat of the event is determined. Changes to variables, feature changes or content unlocks, or promotions and SKUs.
  - a. **Content:** In this game content will be focused on Themes. Additionally, what messaging is needed for the activity. This includes the current image to be shown on the Start Menu screen as above.
  - b. **Challenge:** A LiveOps agent should be able to make changes to various gameplay variables at both a global level or at a targeted level.
  - c. **Event:** If the configuration is being used to setup an event, then we should be able to establish the actions required for to complete the event, any artwork, and leaderboards.
  - d. **Promotions:** These are monetisation promotions.

### Event ID

All events will contain an eventID, this should be passed through on the data whenever a user interacts with a facet of an event. This is especially significant for promotions. If there is a promotional purchase during an event then it's SKU and Event ID's should be passed through together so that we can properly measure engagement or spend with this event or promotion.

### Community Management

Whilst community and social media experiences are integral to LiveOps engagement activity in a game focused on young people we need to manage this very carefully with full safeguarding in mind.

For Cooking Numbers, the community engagement will be purely inside the game with Theme updates and releases and daily or weekly gameplay challenges. In terms of social experiences this will be limited to the 'Family Circle' setup by parents and even there limiting communication to share predefined information and emoticons, which limit the scope of direct in-game communication whilst still making it entertaining for all concerned.

In terms of social media, the focus instead will be on the Parent and Educator audiences; where we tap into these individuals to create positive reinforcement and engagement to indirectly motivate child players.

### Problem Management

The approach we are making to limit the scope of interaction also limits the scope of the potential problem management issues which may arise however there are a number of areas we will include:

1. Parents have easy access to an email address to contact us
2. LiveOps team will monitor overall performance issues eg, server outages and publish game status to the games' website
3. Sharing history for the Family Circle will be stored in the client and accessible to the parent; but any associated data will only be held by the game anonymously

## MARKETING OVERVIEW

### Audience breakdown

**Primary audience:** Five– Eight year-olds, all genders where head of household fits [A, B, C1, C2]. Looking for gameplay which is genuinely engaging and happens to support valid educational goals.

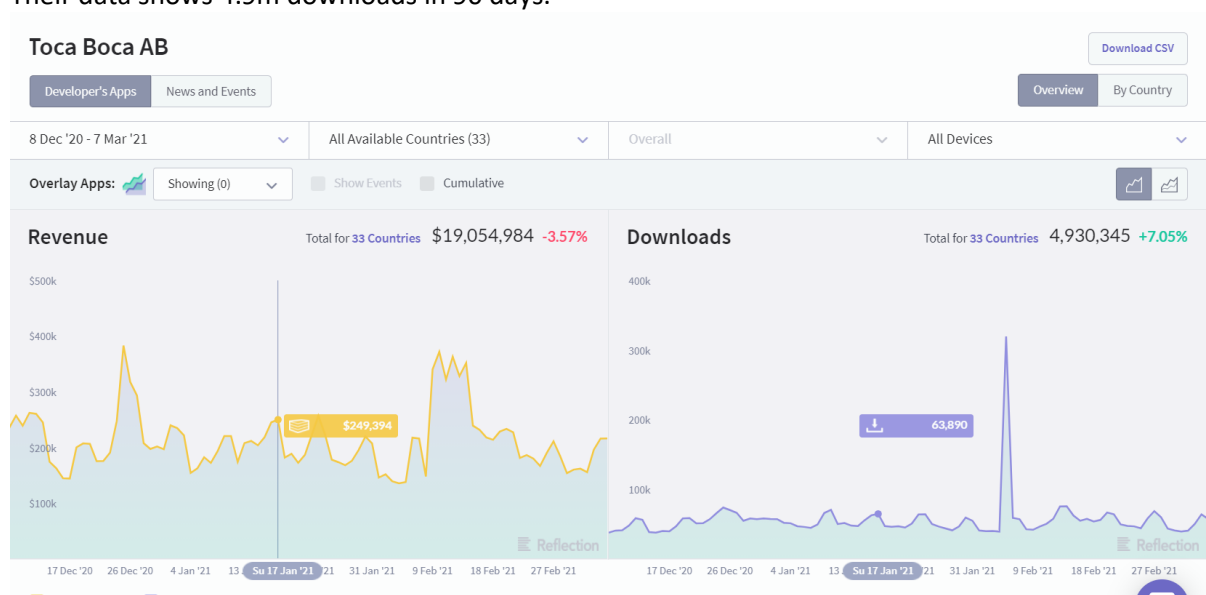
**Secondary audience:** Parents of players, all genders. Gatekeepers of Child Activity. Looking for content which retains their interest and still support valid educational goals.

**Tertiary audience:** Educators, not active players, looking for content for their pupils which entertains and stimulates mental acuity.

### Anticipated user base size

The market potential of games such as this are exemplified by the game developer Toca Boca, which is one of highest performing brands in child audience range.

Their data shows 4.9m downloads in 90 days.



### Key messaging

#### 1. Summary

In Cooking Numbers, you are the head chef in a conveyor belt restaurant!

Create as tasty food dishes as possible with the ingredients you are given, solving simple maths problems on the way. Keep your customers happy and don't lose ingredients!

How many tasty meals can you make?

#### 2. Key features

**DELICIOUS NUMBERS!**

Combine the ingredients that add up to the right number to satisfy each customer!

**HURRY UP!**

You only have a short time to serve each customer before the other Chef beats you to it!

**DON'T WASTE FOOD**

Try to use all the ingredients if your trash gets full its Game Over!

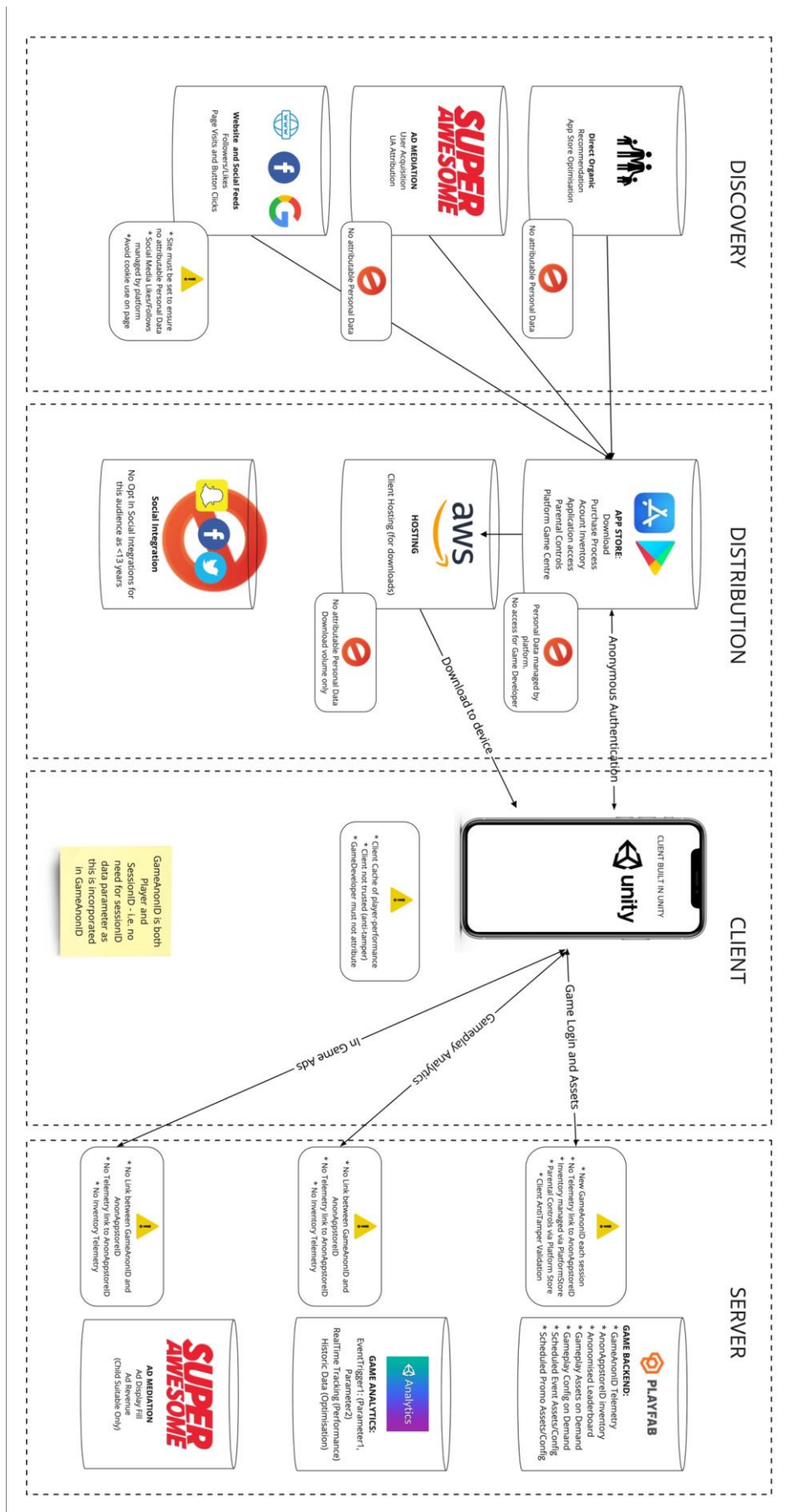
### User acquisition strategy

We will place ads for Cooking Merge within other games targeted to our audience, via SuperAwesome (<https://www.superawesome.com/>).

Additionally, we will market (via ads and PR), to educational and child friendly websites and via parent groups.

Subject to the game's success, long term we will seek branding opportunities with toy companies for our 5 characters as well as promotional branded Themes within the game e.g., Peppa Pig Theme.

# DATA MAP & DEVOPS



## DATA USE CASES

User	Sees	Does	System	Dependency	Result	Data
Parent	Finds out about game via Friend or Social Media	Searches on appstore	PLATFORM (Apple or Google) identifies user account	PARENT has account setup	PARENT can download app	Stored by PLATFORM
Child	Finds out about game via Friend or Social Media	Searches on appstore	PLATFORM (Apple or Google) identifies user account	PARENT has set parental controls to allow CHILD to install or approves install directly	CHILD can download app	Stored by PLATFORM
Child	Game is installed on device	Clicks App Icon to Play	PLATFORM provides AnonAppstoreID to GAME BACKEND. GAME BACKEND sets new GameAnonID for this session with Inventory/ cache data	PLATFORM login authentication passes, Parental control settings on PLATFORM passes. CLIENT Tamper Validation passes	GAME BACKEND downloads any necessary assets and configs for that day. CHILD can now play game	PLATFORM Login Inventory assigned to session unique GameAnonID Gameplay Data for session unique GameAnonID
Child	Reaches a point in game where they can use an AD for in-game value	Clicks Link for AD	AD MEDIATION supplies suitable ad.	AD MEDIATION only supplies ad where suitable, requires no follow-up-action and not limited by Parental control	Relevant reward delivered i.e. limited time access to new theme	AD Mediation counts total ads supplied with no link to AnonAppstoreID
Child	Wants to purchase an IAP Item i.e. theme	Clicks Link to Purchase	PLATFORM Parental Controls require Parental approval	Parental Approval is required via the PLATFORM	Theme added to AnonAppstoreID Inventory, allocated to each unique GameAnonID each session	PLATFORM manages purchase process and inventory. Game only has access to AnonAppstoreID
Parent	Wants to setup a Family Group	Clicks on Parental Section in Game	Game relies on PLATFORM to manage Parental Controls	IF PLATFORM controls cannot validate Parent feature will not be supported	Share scores and recording of gameplay results (NO CHILD INFO) with pre-set emojis ONLY with Family Group	Game would use Device or Platform share tools so no message, video or data, other than the act of sharing my GameAnonID is recorded
Child	Gets a high score	Wants to share with Family	Game caches Score data locally and anonymously on server Game captures last few seconds of gameplay	PLATFORM Parental Controls have not changes and Family Group has been setup	Game sends PLATFORM social share tools with score, templated emoji and gameplay capture to pre-approved Family Group	Game validates locally cached score against anonymous server score. Tracks that a message was sent not what the message was

## DATA CAPTURE

Within the game, we will capture data of the performance of the game and choices of players. This data capture needs to be designed with appropriate data protection legislation such as GDPR in the EU and considering the audience age.

This data must be truly anonymised (including by inference). No personal data about the players will be captured.

The following are the key EventTriggers to be captured. More may be added over time.

EventTrigger	Description	Datapoints
GameLaunch	When they opened the app	GameAnonID; Date and Time; Timezone; DeviceType; VersionNo;
StartCooking	When they started playing	Date and time; GameAnonID; ConfigSetting (as relevant)
FinishCooking	When the player finished playing, what they did whilst playing	Date and Time; GameAnonID; HappyScore; MergeEventLog(IngredientID;RecipeID;timestamp); FeedEventLog(timestamp); BinEventLog(timestamp);
AdView	How the player watched the ad	Date and Time; GameAnonID; Skipped(Y/N);
FTUE_stage	Confirm how far through the tutorial the player gets	GameAnonID; Date and Time (ServerTime); Timezone; VersionNo; TutorialStageID;
Purchase complete	Player makes a purchase from the shop	GameAnonID; Date and Time; Timezone; DeviceType; VersionNo; EventID; ShopID; SkuID; Rewards();
SessionEnd	When they close the app	GameAnonID; Date and Time; Timezone; DeviceType; VersionNo;
AgreedPrivacyAndTerms	When they get presented with relevant screen. Needs to be attributable to root account, not sessionID.	AnonAppStoreID; Date and Time; Timezone; DeviceType; VersionNo;



## DATA STORAGE

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Unity Analytics (third party) platform will be used to store performance data.

Game data will be stored in Playfab (third party) platform.

## DATA USAGE

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The captured performance data will be used as follows:

1. By the developers to make changes to the game and game data
2. By the developers to make changes to ads of the game
3. By the developers to make changes to the types of ads served into the game

## CONTROLLER

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The data controller, registered with ICO, will be the developer, as we are self-publishing the game.

Third parties (such as Unity Analytics, SuperAwesome) are the controller of the data they gather.

## ICO STANDARD ANALYSIS

Standard	How this standard is applied in this game
<p><b>Best interests of the child</b></p> <p><i>Design and develop your online service with the best interests of the child in mind. This means taking into account their age, keeping them safe from exploitation risks and protecting and supporting their health, wellbeing, physical and psychological development. Your use of their personal data shouldn't affect any of these factors</i></p>	<p>No personal data is capture by the game. The game has been designed with suitable approaches to monetisation and retention, including:</p> <p>Retention features being focused on long term retention whilst encouraging players to leave regularly. This includes a) player being able to pause/exit the game at any time without losing progress, b) play sessions anticipated at maximum 90 seconds at the end of which the player will have clear option to exit, and c) new release of Themes being spread out over time</p> <p>Monetisation is limited to suitable approaches for the age group, including a) features being served triggered by gameplay, not by user progress or performance, b) ads being served by an ad provider who provides ads specifically suitable for the target audience, c) IAP and subscriptions being limited in the application, and d) using the platform payment systems which including parental control options – all managed by the platform not the game</p> <p>The only social feature (Family Circle) using the platform's social system (e.g. iOS Game Centre) which includes parental controls – all managed by the platform not the game, and is by default disabled</p>
<p><b>Data protection impact assessments (DPIAs)</b></p> <p><i>Undertake a DPIA to assess and mitigate any risks to the rights and freedoms of children that arise from your processing of their data</i></p>	<p>This will be done by legal team</p>
<p><b>Age appropriate application</b></p> <p><i>Take a risk-based approach to recognising the age of your users – either establish age through verification, or apply the standards to all users</i></p>	<p>The game applies the standards for the target age group (8 years and under) to all users. It does not recognise the age of users.</p>
<p><b>Transparency</b></p> <p><i>Ensure your privacy information is concise, prominent and written in clear language that a child could understand. Provide additional explanations at points where you use their personal data</i></p>	<p>Users will have to acknowledge they have read the terms of use and privacy policy, and will be accessible at all times. See ' Terms of Use and Privacy Policy Acknowledgement Screen' section above for details.</p>
<p><b>Detrimental use of data</b></p> <p><i>Do not use children's personal data in ways that are detrimental to their wellbeing or that go against industry codes of practice</i></p>	<p>There is no personal data being captured (see Data Map section above) by the game, and if there was it would not be used in detrimental ways or go against industry codes of practice.</p>
<p><b>Policies and community standards</b></p> <p><i>Uphold your own community standards and policies, eg age restrictions, behaviour rules and content policies</i></p>	<p>The policies and standards will be made available to the user and will be adhered to. See ' Terms of Use and Privacy Policy Acknowledgement Screen' section above for details.</p>
<p><b>Default settings</b></p>	<p>There are no privacy settings as personal data is not collected.</p>

<i>Set all privacy settings to 'high' by default, unless you can demonstrate a reason not to</i>	
<b>Data minimisation</b>  <i>Collect and retain the minimum amount of personal data required to run your service. Give children separate choices over which elements they wish to activate</i>	The game does not capture any personal data, performance data cannot be tracked back to an individual player and all data being captured is core to the purpose of gameplay (see Data Map section above). IP address is not captured. The platform (iOS/Android) may capture personal data when taking payments and/or when allowing users to connect to the Family Circle, but the game will not have access to any of that.
<b>Data sharing</b>  <i>Do not share children's data unless necessary, taking into account the best interests of the child</i>	There is no personal data captured (see Data Map section above), but even if there were, it would not be shared.
<b>Geolocation</b>  <i>Switch geolocation settings to 'off' by default unless you have a compelling reason not to. Make it obvious when location tracking is active. Default location tracking to 'off' at the end of a session</i>	Geolocation is not used in this game, therefore will be turned off with no option to turn on.
<b>Parental controls</b>  <i>Give children age-appropriate information about parental controls. If your service allows parental monitoring, make it obvious to the child when they are being monitored</i>	The only controls/ consent parents have is accepting users to the Family Circle, which is handled by the platform (i.e., iOS Game Centre) not the game, and controlling payments, which is handled by the platform payment system, not the game. There is no parental monitoring.
<b>Profiling</b>  <i>Switch profiling options to 'off' by default, unless you have a compelling reason not to. Only allow profiling if you have measures in place to protect children from any harmful effects, eg being fed content detrimental to their health or wellbeing</i>	There is no profiling in the game therefore it will be switched to off by default and will have no option to turn on.
<b>Nudge techniques</b>  <i>Do not use nudge techniques to encourage children to provide unnecessary personal data or to turn off their privacy protections</i>	There are no nudge techniques used.
<b>Connected toys and devices</b>  <i>Ensure your connected toy or device includes effective tools to conform to the code</i>	There are no connected toys or devices.
<b>Online tools</b>  <i>Provide prominent and accessible tools to help children exercise their data protection rights and report concerns</i>	Users will be able to report concerns easily in the game. This will be available from the Parents Overlay Screen and the Settings Overlay Screen (see sections above).

## GLOSSARY OF TERMS

TERM	DEFINITION
Achievement badges	Collectable items in the game, that display as a 'badge'. Players collect them for achieving specific in game goals and can view their collection. Often used as a social status, where players can see what other players have collected.
Ads	Video ads – served to players in the game (of other suitable content), and served in other games, advertising this game
Advertising Inventory	This is a term for the positions in your game where players can view an ad.
Amazon App Store	The store for Android Devices Via the Amazon Portal.
Community Management	The process to support the engagement of players and fans over time and includes more social (inc. social media) experiences,
Content Update	the (ideally predictable) release pipeline of new content over time after launch.
Device notifications	Notifications that appear on the player's device, outside of the game app itself. Must be 'opt in' within the game, and the player must always be able to turn them on/off in the game (but also the device settings will allow control of this too).
DevOps	DevOps combines development and technical operations. It involves managing the ongoing delivery of the game, ensuring that the game is accessible and functioning.
EFIGS	English, French, Italian, German, Spanish
Events	Activities intended to stimulate ongoing play and engagement with a game and its community; often combined with Promotions.
EventTriggers	A specific action or decision point reached in the flow of a game that initiates the capture of defined anonymous data points used to analyse the game.
Feature Update	The (ideally predictable) release pipeline of new features on the game over time after launch
First Time User Experience/ FTUE	The flow the player goes through when they first play the game. A critical path for the adoption of a title and one that developers will consider in detail prior to release of the game.
Game Centre	<a href="https://developer.apple.com/game-center/">https://developer.apple.com/game-center/</a>
Game Engine	A tool which allows games to be developed, the engine handles how images/characters/effects/etc appear on screen and react, and interact, in response to player inputs. Increasingly developers are using game engines build by external companies such as Unity Technologies and Epic (Unreal Engine), Yoyo games (Gamemaker Studio) rather than the developer themselves. Developers who make their own tools in order to gain a specific advantage can be creating a separate and valuable asset; but generally, it's a wasteful and complex process to 'roll your own.'
Google Play Store	The store for Android Devices.

In Game Advertising	<p>A form of advertising which happens within the game experience. This includes the following:</p> <p>Banner: increasingly rare (as it interferes with the in-game screen) but a dedicated space to show off adverts.</p> <p>Interstitial: a way to show an add after play or between menus. May be static, native, or video but the player usually has the option to skip these manually.</p> <p>Rewarded Video (Opt-in): adverts which the player opts to watch in return for some in-game value. Highly effective.</p> <p>Native Ads: The placement of objects in a scene e.g. A Pizza Hut branded pizza box in a game. This tends only to work in specific genres of game.</p> <p>Playable Ads: Mini games designed to promote other games. Can be highly effective but still early days for this method of advertising.</p>
In-App-Purchase/ IAP	Micro-payment transactions which occur in the game, ranging from consumable power-ups to full downloadable extensions of the game.
iOS App Store	The store for Apple Devices.
Lapsed User Experience/ LTUE	Considers the flow the player goes through if they return to the game after a period of inactivity and may need reminding of certain elements.
Leaderboard	Displays the rankings of players relative to each other
LiveOps	The process of management of a living game ('Games as a Service') and includes Events, Promotions, Problem Management, Community Management, Content Release and Feature Updates.
LiveOps agent	The person responsible for managing the live operations activity of the game, part of the development team.
Localisation/ Culturalisation	The translation of the art and text within the game in order to make it work for native speakers of different languages and cultures. Paying attention to the cultural norms for each region is increasingly important. For example, MENA territory can produce issues if avatar selection defaults to a view with visible underwear, and Asian Regions are sensitive to depictions of ghosts or forms of undead.
NPCs	Non player characters – characters in the game that are not controlled by the player, but which the player character interacts with.
Pay to Win	An (often derogatory) term where the business model takes precedence over the playing experience. Some ideological players/developers consider any in-game payment as 'Pay to Win' unless it's purely cosmetic. This is generally not an issue in Asian markets. However, if you can win or 'avoid playing' simply by spending money this will always be detrimental to the success of the title.
Performance data	Also referred to as analytics data. This is the capture of anonymised player behavioural information for the purpose of improving the playability, retention, and conversion of players in a game to paying.
Player Lifecycle	Player Lifecycle is a way of looking at the frequency of activity following the initial installation of a game. We find that there are often patterns which can give us

	<p>insight into the issues affecting the game when we do this. The core patterns can be described as follows:</p> <p>Discovery: Players find the game and need to immediately understand it or will leave (esp. mobile.)</p> <p>Learning Stage: Player are getting to understand the game and how it fits into their routine.</p> <p>Engagement Stage: Players now understand the game and their patterns of play start becoming more predictable and they become open to converting to paying; perhaps even super engaging (i.e., buying higher value items.)</p> <p>Churning Stage: Most games will have a limited shelf life and players will move on. However, some are evergreen concepts and may last for several years (provided that they are constantly supported.)</p>
Problem Management	The process in place to identify, capture and fix issues as they arise in live games; often works very closely with Community Management and tends to have different lines (or gates) of support which allow the team to triage issues as they arise and only escalate as required.
Promotions	Special offers, price changes and bundles for players (usually on a short-term basis); often combined with Events.
Replayability/ Repeatability	This is a core factor for 'Games as a Service' and relates to the fact that we need players to be willing to repeat key mechanics time and time again (and still have fun). Gameplay needs to be essentially endless to maximise the potential for Free-to-Play to have the maximum benefit as a business model.
Retention	Understanding how we keep players playing and returning to the game between sessions. This often can be understood by considering the Engagement stage of the Player Lifecycle.
Second Time User Experience/ STUE	Similar to FTUE but considers not just the first time the player plays the game, but the onboarding required beyond.
SKUs	Stock Keeping Unit – in the case of digital games, this means the specific version of the game.
User acquisition/UA	Whilst this is a general term, it tends to be used to describe the process to maximise the acquisition of new players through direct response ads/cross-promotion within (largely mobile) applications or games.
Variables	Elements within the game that can change. For example, the speed at which ingredients appear on the conveyor belt, the numbers that appear on the customer plates, the complexity of the equation that the player needs to find.