

Requirements

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Part a)

After arranging a meeting with the stakeholders, the next process was to decide on the requirements needed for the project. Using the provided product brief, which specified all the compulsory requirements needed for the first assessment, we were able to elicit the majority of requirements needed for the product. Next, we prepared a list of questions for the stakeholders, where members of the group inquired about additional specifications/details that should be incorporated into the product. Then, the questions were posed to the stakeholders, which consisted of an ENG1 lecturer. The questions were mainly feature-related, sound effect related, user-related, and some were non-feature related. The feature related questions included questions such as how long a burger should cook and etc. The sound effect related questions were about the overall audio of the game. The user related questions included questions such as who will be the users of the game and if they are familiar with the technology of the game. The non-functional questions were asking about the system's usability, availability, and security.

After finishing the meeting with the stakeholders, we had a clear understanding of the product's requirements and next we had to start documenting the requirements.. We also decided that each requirement should have a consistent meaningful name instead of a number id, which makes it easier to identify them later on. Lastly, for the requirements presentation, we agreed to use three tables—one for user requirements and two for system requirements. Tables are organised, simple, and easy to follow. Furthermore, by using tables we were able to easily organise the requirements in hierarchical order and order them by an appropriate priority. Tables are also easy to extend, which makes it easier to add and refine requirements throughout the development lifecycle if necessary.

When we received new requirements to update the game against, we had a meeting to update the table against these new requirements, add requirements the other group missed and remove requirements that we deemed unimportant. Similar to before, we then had a discussion with our customer Tommy Yuan about any clarifications or specific implementation details we wanted to ask about.

Part b)

SSON: "The game shall enable players to control multiple chefs to prepare and cook food at each customer's request."

User Requirements

ID	Description	Priority
UR_CONTROL_COOKS	The game shall allow the player to control chefs individually.	Shall
UR_INGREDIENTS	The player shall be able to collect ingredients	Shall
UR_COOK_FOOD	The player should be able to make different dishes.	Shall
UR_SERVE_FOOD	The player shall be able to serve the dishes to customers.	Shall
UR_CUSTOMERS	The game shall have customers to serve.	Shall
UR_FAILING_STEPS_SCENARIO	The player shall not be able to overcook or fail making food or serving customers in scenario mode.	Shall
UR_FAILING_STEPS_ENDLESS	The player shall be able to overcook or fail making food or serving customers in endless mode.	Shall
UR_WRONG_INGREDIENT	The player shall be able to get rid of ingredients from their stack.	Shall
UR_UX	The game shall offer a pleasant user experience	Shall
UR_INSTRUCTIONS	The instructions to cook food shall be displayed to the user along with controls.	Shall
UR_GRAPHICS	The graphics of the game shall be clear and easy to understand. The graphics shall also be child friendly.	Shall
UR_SCALABILITY	The game shall be able to be displayed on both big and small screens.	Shall
UR_COMPATIBILITY	The game shall be able to be played on multiple operating systems.	Shall
UR_ACCESSIBILITY	The game should provide accessibility options.	Should
UR_TIME_TO_COMPLETE	The game should take an appropriate	Should

	amount of time to complete, depending on the mode being played.	
UR_SETTINGS	The game should provide the option to customise settings to the player's preference.	Should
UR_SOUND	The game may have sound effects.	May
UR_ENDLESS_MODE	The user shall be able to decide to play an alternate mode "Endless" mode - which impacts the functionality of the game	Shall
UR_MONEY	The game should have an economy where the player can get and spend money.	Shall
UR_EXPAND	The game should allow you to purchase additional chefs and stations	Shall
UR_POWERUPS	The game should have power ups.	Shall
UR_REPUTATION	The game should have a lives system, where the user starts out with x amount of lives, "reputation points".	Shall

Non-functional requirements

ID	Description	User Requirements	Fit Criteria
NFR_AVAILABILITY	The system shall be highly available	UR_CONTROL_CH EFS	Uptime: 100% during the open days
NFR_DOCUMENTATION	The system shall have a guide that details all its functions	UR_INSTRUCTIONS	Clear instructions on how to play the game
NFR_OPERABILITY	The system shall be operable by customers that have no previous experience with the game	UR_INSTRUCTIONS & UR_GRAPHICS	Easy to understand interface with clear instructions
NFR_ACCESSIBILITY	The system shall be operable by those with accessibility issues	UR_ACCESSIBILITY	Cater for those with accessibility needs
NFR_USABILITY	The system shall contain no technical jargon	UR_INSTRUCTIONS	Not use any complicated terminology

NFR_DIFFICULTY	Endless mode should be accessible to users of different skill levels.	UR_ENDLESS_MODE	Easy mode should be accessible to people who've never played video games, medium should be for people who have played, and hard should be for people who play a lot.
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Functional Requirements

ID	Description	User Requirements
FR_CHANGE_PLAYABLE_CHARACTER	The system shall let the user switch control between playable characters.	UR_CONTROL_COOKS
FR_MOVE_PLAYABLE_CHARACTER	The system shall have controls that move the playable character.	UR_CONTROL_COOKS
FR_GRAB_ITEMS	The system shall allow the player to grab various in-game items.	UR_INGREDIENTS
FR_FLIP_AND_CHOP	The system shall allow the player to flip and chop certain items.	UR_COOK_FOOD
FR_PLACE_ITEMS	The system shall let the player place items after grabbing them.	UR_SERVE_FOOD
FR_REMOVE_ITEMS	The system shall let the player completely remove items from the game	UR_WRONG_INGREDIENT
FR_NOT_OVERCOOKING_SCENARIO	The system shall not allow items to be overcooked or overbaked	UR_FAILING_STEPS_SCENARIO
FR_OVERCOOKING_ENDLESS	The system shall allow items to be overcooked or overbaked.	UR_FAILING_STEPS_ENDLESS
FR_SERVE_CUSTOMER	The system shall let the player serve the customer their order.	UR_CUSTOMERS
FR_GUIDE_USER	The system shall subtly guide the user and make sure they finish each task successfully every time.	UR_INSTRUCTIONS

ID	Description	User Requirements
FR_FULL_SCREEN	The system should let the user play in full screen mode.	UR_SCALABILITY
FR_COLOR_BLINDNESS	The system should let a user with colour blindness choose a suitable colour palette to enhance their gaming experience.	UR_ACCESSIBILITY
FR_TIMER	The system should have a timer that shows how much time has elapsed	UR_TIME_TO_COMPLETE
FR_SAVE_CHANGES	The system should remember the user's settings.	UR_SETTINGS
FR_MUTE_SFX	The system shall let players mute sound effects/music.	UR_SOUND
FR_COOK_FOOD_SCENARIO	The user will only be able to make salads and burgers in scenario mode.	UR_COOK_FOOD
FR_COOK_FOOD_ENDLESS	The user will be able to make salad, burgers, pizzas and jacket potatoes in endless mode.	UR_COOK_FOOD
FR_CUSTOMER_SCENARIO	Scenario mode will have a default of 5 customers, each asking for 1 dish.	UR_CUSTOMERS
FR_CUSTOMER_ENDLESS	Endless mode will have endless customers, asking for 1-3 dishes.	UR_CUSTOMERS
FR_GAME_TIME_SCENARIO	A scenario mode game should last 5-6 minutes on average.	UR_TIME_TO_COMPLETE
FR_GAME_TIME_ENDLESS	An endless mode game should last 8-10 minutes on average.	UR_TIME_TO_COMPLETE
FR_CONTROL_COOKS_SCENARIO	Scenario mode will have 2 cooks to switch between and control.	UR_CONTROL_COOKS
FR_CONTROL_COOKS_ENDLESS	Endless mode will have 3 cooks maximum to control, starting the game with only 1.	UR_CONTROL_COOKS

ID	Description	User Requirements
FR_CONFIGURABLE_CUSTOMERS	Scenario mode should default to five customers, but be able to be configurable.	UR_CONTROL_COOKS
FR_NEW_STATIONS_ENDLESS	The game should have new stations for the new recipes in endless mode: ovens, pizzas stations, pantry boxes, etc.	UR_MORE_RECIPES
FR_PASSIVE_INCOME_ENDLESS	The game should give you money in small quantities over time in endless mode.	UR_MONEY
FR_INCOME_FROM_SERVING_ENDLESS	The game should award you money when you correctly serve a customer in endless mode	UR_MONEY
FR_BUY_COOKS_ENDLESS	The game should allow you to buy new chefs, with the max of three in endless mode.	UR_EXPAND
FR_BUY_STATIONS_ENDLESS	The game should allow you to unlock more cooking stations in endless mode.	UR_EXPAND
FR_POWERUP_SPAWN_ENDLESS	The game should randomly spawn temporary power ups when a customer is served.	UR_POWERUPS
FR_RUIN_FOOD_ENDLESS	The game should allow food to be ruined if the process is done wrong, e.g. a burger left on the hob, it will burn and you will have to restart.	UR_FAILING_STEPS_ENDLESS
FR_DIFFICULTY_ENDLESS	The game should allow you to change the difficulty.	UR_ENDLESS_MODE
FR_SAVE_GAME_ENDLESS	The game should allow players to save the state of the game, and resume later on	UR_ENDLESS_MODE