Test	Requirement	Steps	Expected Results	Actual Results
Start Game	UR_MENU	<ol> <li>Launch game</li> <li>Press the assigned         "Start Endless Mode"         key, "E"</li> <li>Press the assigned         "Easy" key, "1"</li> <li>Press the assigned         "Start" key, "Space"</li> </ol>	<ol> <li>Game launches</li> <li>Screen changes to another menu screen asking the player to select a difficulty</li> <li>Screen changes to another menu screen introducing the game</li> <li>Screen changes from the menu screen to the game screen and the game timer starts</li> </ol>	As expected
Credits Menu	UR_MENU	1. Launch game 2. Press the assigned     "Credits" key, "C" 3. Press the assigned     "Credits" key, "C"	Game launches     Screen changes from the menu screen to the credits screen     Screen changes back from the credits screen to the menu screen	As expected
Instruction s Menu	UR_MENU UR_TUTORIAL	Launch game     Press the assigned     "Instructions" key, "I"     Press the assigned     "Instructions" key, "I"	Game launches     Screen changes from the menu screen to the instructions screen     Screen changes back from the instructions screen to the menu screen	As expected
Pause game	UR_MENU FR_PAUSE	<ol> <li>Launch game</li> <li>Press the assigned         "Start Endless Mode"         key, "E"</li> <li>Press the assigned         "Easy" key, "1"</li> <li>Press the assigned         "Start" key, "Space"</li> </ol>	<ol> <li>Game launches</li> <li>Screen changes to another menu screen asking the player to select a difficulty</li> <li>Screen changes to another menu screen introducing the game</li> <li>Screen changes from the menu screen to the game screen and the</li> </ol>	As expected

		<ul><li>5. Press the assigned "Pause" key, "Esc"</li><li>6. Press the assigned "Pause" key, "Esc"</li></ul>	game timer starts 5. Screen changes from the game screen to the pause screen and the game timer pauses 6. Screen changes from the pause screen to the game screen and the timer continues	
Quit game	FR_QUIT	Launch game     Press the assigned     "Quit" key, "Q"	Game launches     Game window closes	As expected
Switch chefs	FR_SWITCH_C HEFS	<ol> <li>Launch game</li> <li>Press the assigned         "Start Endless Mode"         key, "E"</li> <li>Press the assigned         "Easy" key, "1"</li> <li>Press the assigned         "Start" key, "Space"</li> <li>Press movement key         to verify which chef is         currently being         controlled</li> <li>Press the assigned         "Switch chef" key,         "Tab"</li> <li>Press movement key         to verify which chef is         currently being         controlled</li> <li>Press movement key         to verify which chef is         currently being         controlled</li> <li>Press the assigned         "Switch chef" key,         "Tab"</li> </ol>	<ol> <li>Game launches</li> <li>Screen changes to another menu screen asking the player to select a difficulty</li> <li>Screen changes to another menu screen introducing the game</li> <li>Screen changes from the menu screen to the game screen and the game timer starts</li> <li>One of the chefs moves</li> <li>The camera moves to centre on another chef</li> <li>The chef the camera centred on moves</li> <li>The chef the moves to centre on the first chef again</li> <li>The first chef moves again</li> </ol>	As expected

		9. Press movement key to verify which chef is currently being controlled  10. Press the assigned "Switch chef" key, "Tab"  11. Press movement key to verify which chef is currently being controlled		
Buy powerup	FR_POWERUPS	<ol> <li>Launch game</li> <li>Press the assigned         "Start Endless Mode"         key, "E"</li> <li>Press the assigned         "Easy" key, "1"</li> <li>Press the assigned         "Start" key, "Space"</li> <li>Serve customers until         30 gold is earned -         enough money to         purchase a powerup</li> <li>Navigate the selected         chef to the shop</li> <li>Press the assigned         action key, "Space"</li> <li>Press the assigned         key to purchase a         powerup, "Space"</li> </ol>	<ol> <li>Game launches</li> <li>Screen changes to another menu screen asking the player to select a difficulty</li> <li>Screen changes to another menu screen introducing the game</li> <li>Screen changes from the menu screen to the game screen and the game timer starts</li> <li>Money increases with each customer served</li> <li>Chef moves to the shop</li> <li>Screen changes from the game screen to the shop screen, timer continues</li> <li>The value of the player's gold decreases</li> </ol>	As expected
Pause powerup	FR_POWERUPS FR_INTERACTI	Launch game     Press the assigned	Game launches     Screen changes to another menu	As expected

	ON FR_ITEMS_EFF ECTS FR_ITEMS_INT ERACTIONS	"Start Endless Mode" key, "E"  3. Press the assigned "Easy" key, "1"  4. Press the assigned "Start" key, "Space"  5. Serve customers until enough money is earned to purchase the speed powerup: 30 coins  6. Navigate the selected chef to the shop  7. Press the assigned action key, "Space"  8. Press the assigned key to purchase the pause powerup, "Space"  9. Navigate to the customer area of the map  10. Wait for a few minutes	screen asking the player to select a difficulty  3. Screen changes to another menu screen introducing the game  4. Screen changes from the menu screen to the game screen and the game timer starts  5. Money increases with each customer served  6. Chef moves to the shop  7. Screen changes from the game screen to the shop screen, timer continues  8. The on screen timer should stop but the chef can still move  9. The customers' patience bars should be paused  10. The timer should start counting again and the customers' patience bars continue to decrease	
Rendering the stack display	FR_STACK_DIS PLAY	<ol> <li>Launch game</li> <li>Press the assigned         "Start Endless Mode"         key, "E"</li> <li>Press the assigned         "Easy" key, "1"</li> <li>Press the assigned         "Start" key, "Space"</li> <li>Navigate to the pantry         section of the map</li> </ol>		As expected

		6. Use the "Up" key to pick up multiple items	pantry 6. Multiple items are picked up, each one rendering on top of the other as a stack	
Different screen sizes	NFR_SCREEN	<ol> <li>Launch game</li> <li>Press the assigned         "Start Endless Mode"         key, "E"</li> <li>Press the assigned         "Easy" key, "1"</li> <li>Press the assigned         "Start" key, "Space"</li> <li>Resize the game         window</li> </ol>	<ol> <li>Game launches</li> <li>Screen changes to another menu screen asking the player to select a difficulty</li> <li>Screen changes to another menu screen introducing the game</li> <li>Screen changes from the menu screen to the game screen and the game timer starts</li> <li>Game resizes to fit the new window</li> </ol>	As expected
Customers arriving	FR_CUSTOMER _ARRIVE	<ol> <li>Launch game</li> <li>Press the assigned         "Start Endless Mode"         key, "E"</li> <li>Press the assigned         "Easy" key, "1"</li> <li>Press the assigned         "Start" key, "Space"</li> <li>Navigate the selected         chef to the customer         area</li> <li>Wait for a few minutes</li> </ol>	<ol> <li>Game launches</li> <li>Screen changes to another menu screen asking the player to select a difficulty</li> <li>Screen changes to another menu screen introducing the game</li> <li>Screen changes from the menu screen to the game screen and the game timer starts</li> <li>Selected chef (and the camera) move from to the customer/serving area of the map</li> <li>Customers should start to arrive and walk to their designated serving station</li> </ol>	As expected
Storm out	FR_CUSTOMER _WAIT FR_CUSTOMER	Launch game     Press the assigned     "Start Endless Mode"	Game launches     Screen changes to another menu screen asking the player to select a	As expected

	_LOSE	key, "E" 3. Press the assigned "Easy" key, "1" 4. Press the assigned "Start" key, "Space" 5. Navigate the selected chef so that the customers are on the screen 6. Wait for a couple of minutes	difficulty  3. Screen changes to another menu screen introducing the game  4. Screen changes from the menu screen to the game screen and the game timer starts  5. Selected chef (and the camera) move to the customer/serving section of the map  6. Customers arrive, and if left long enough without being served, they leave and the reputation points are decreased. Eventually, the player will run out of reputation points and the screen will transition to a game over screen.	
Show orders on screen	FR_ORDERS	<ol> <li>Launch game</li> <li>Press the assigned         "Start Endless Mode"         key, "E"</li> <li>Press the assigned         "Easy" key, "1"</li> <li>Press the assigned         "Start" key, "Space"</li> <li>Navigate the selected         chef to the customer         area</li> <li>Look at the customer         orders</li> </ol>	<ol> <li>Game launches</li> <li>Screen changes to another menu screen asking the player to select a difficulty</li> <li>Screen changes to another menu screen introducing the game</li> <li>Screen changes from the menu screen to the game screen and the game timer starts</li> <li>Selected chef (and the camera) moves to the customer/serving area of the map</li> <li>Visual indicators of the customer's request should appear in a speech bubble</li> </ol>	As expected
Easy game	FR_DIFFICULTY	1. Launch game	Game launches	As

difficulty		<ol> <li>Press the assigned         "Start scenario mode"         key, "S"</li> <li>Press the assigned         "Start" key, "Space"</li> <li>Select the easy         difficulty using the         assigned key, "1"</li> <li>Start a timer</li> <li>Navigate the selected         chef to customer area</li> <li>Wait for customer to         storm out</li> <li>Stop timer</li> <li>Check timer</li> </ol>	<ol> <li>Screen changes to another menu screen asking the player to select a difficulty</li> <li>Screen changes to another menu screen introducing the game</li> <li>Screen changes from the menu screen to the game screen and the game timer starts</li> <li>Timer starts</li> <li>Selected chef (and the camera) moves to the customer/serving area of the map</li> <li>Customer storms out</li> <li>Timer stops</li> <li>Ensure the timer is between 200 and 300 seconds</li> </ol>	expected
Medium game difficulty	FR_DIFFICULTY	<ol> <li>Launch game</li> <li>Press the assigned         "Start scenario mode"         key, "S"</li> <li>Press the assigned         "Start" key, "Space"</li> <li>Select the medium         difficulty using the         assigned key, "2"</li> <li>Start a timer</li> <li>Navigate the selected         chef to customer area</li> <li>Wait for customer to         storm out</li> <li>Stop timer</li> <li>Check timer</li> </ol>	<ol> <li>Game launches</li> <li>Screen changes to another menu screen asking the player to select a difficulty</li> <li>Screen changes to another menu screen introducing the game</li> <li>Screen changes from the menu screen to the game screen and the game timer starts</li> <li>Timer starts</li> <li>Selected chef (and the camera) moves to the customer/serving area of the map</li> <li>Customer storms out</li> <li>Timer stops</li> <li>Ensure the timer is between 250 and 350 seconds</li> </ol>	As expected

Hard game difficulty	FR_DIFFICULTY	<ol> <li>Launch game</li> <li>Press the assigned         "Start scenario mode"         key, "S"</li> <li>Press the assigned         "Start" key, "Space"</li> <li>Select the hard         difficulty using the         assigned key, "3"</li> <li>Start a timer</li> <li>Navigate the selected         chef to customer area</li> <li>Wait for customer to         storm out</li> <li>Stop timer</li> <li>Check timer</li> </ol>	<ol> <li>Game launches</li> <li>Screen changes to another menu screen asking the player to select a difficulty</li> <li>Screen changes to another menu screen introducing the game</li> <li>Screen changes from the menu screen to the game screen and the game timer starts</li> <li>Timer starts</li> <li>Selected chef (and the camera) moves to the customer/serving area of the map</li> <li>Customer storms out</li> <li>Timer stops</li> <li>Ensure the timer is between 300 and 400 seconds</li> </ol>	As expected
Saving and loading the mode and difficulty	UR_SAVE FR_SAVE FR_LOAD FR_SAVE_SLOT UR_MODE FR_DIFFICULTY	<ol> <li>Launch game</li> <li>Press the assigned         "Start endless mode"         key, "E"</li> <li>Press the assigned         "Start" key, "Space"</li> <li>Select the hard         difficulty using the         assigned key, "3"</li> <li>Press the assigned         "Save" key, "S"</li> <li>Press the assigned         "Load" key, "L"</li> <li>Navigate the selected         chef to the customer         area of the map</li> </ol>	<ol> <li>Game launches</li> <li>Screen changes to another menu screen asking the player to select a difficulty</li> <li>Screen changes to another menu screen introducing the game</li> <li>Screen changes from the menu screen to the game screen and the game timer starts</li> <li>Game saves</li> <li>The game loads to the saved state. The mode should still be endless, indicated by the presence of text on the screen reading "Customers served: x"</li> <li>The selected chef moves to the</li> </ol>	As expected

		Look at the size of the customer patience bar      8. Look at the size of the customer area of the map     8. The customer patience bar should be small (the ends of the bar are inside the bubble)	
Saving and loading the timer	UR_SAVE FR_SAVE FR_LOAD UR_TIMER FR_TIMER FR_SAVE_SLOT	<ol> <li>Launch game</li> <li>Press the assigned         "Start scenario mode"         key, "S"</li> <li>Press the assigned         "Start" key, "Space"</li> <li>Select the hard         difficulty using the         assigned key, "3"</li> <li>Press the assigned         "Save" key, "K"</li> <li>Make a note of the         current timer value</li> <li>Press the assigned         "Load" key, "L"</li> <li>Game launches</li> <li>Screen changes to another menu         screen introducing the game</li> <li>Screen changes from the menu         screen to the game screen and the         game timer starts</li> <li>No visual indicators that the game         has saved</li> <li>No observation to be made</li> <li>Game zooms out and "Loading" text         appears. Game zooms back in and         the timer changes back to the value         noted</li> </ol>	As expected
Saving and loading the gold	FR_EARN_MON EY FR_SAVE FR_LOAD UR_SAVE FR_SAVE_SLOT	J	As expected

		"Save" key, "K"  7. Navigate to another chef at the shop  8. Press the assigned buy key, "Space"  9. Note the new gold  10. Press the assigned "Load" key, "L"	<ul> <li>7. Chef moves to a chef in the shop area of the game</li> <li>8. New chef teleports out of the locked container</li> <li>9. Player's gold is lower than before</li> <li>10. Game zooms out and "Loading" text appears. Game zooms back in and the player's gold changes back to the value initially noted</li> </ul>	
Saving and loading reputation points	FR_SAVE FR_LOAD UR_SAVE FR_REPUTATIO N_POINTS FR_SAVE_SLOT	<ol> <li>Launch game</li> <li>Press the assigned         "Start scenario mode"         key, "S"</li> <li>Press the assigned         "Start" key, "Space"</li> <li>Select the hard         difficulty using the         assigned key, "3"</li> <li>Ensure there are 3         reputation points</li> <li>Press the assigned         "Save" key, "K"</li> <li>Wait until reputation is         decreased (due to a         customer leaving)</li> <li>Press the assigned         "Load" key, "L"</li> </ol>	<ol> <li>Game launches</li> <li>Screen changes to another menu screen asking the player to select a difficulty</li> <li>Screen changes to another menu screen introducing the game</li> <li>Screen changes from the menu screen to the game screen and the game timer starts</li> <li>Screen says there are 3 reputation points</li> <li>No visual indicators that the game has saved</li> <li>Reputation points decreases to 2</li> <li>Game zooms out and "Loading" text appears. Game zooms back in and the player's reputation points change back to 3</li> </ol>	As expected
Chefs can't move when preparing food	FR_SWITCH_C HEF FR_PREPARE	<ol> <li>Launch game</li> <li>Press the assigned "Start scenario mode" key, "S"</li> <li>Press the assigned</li> </ol>	Game launches     Screen changes to another menu screen asking the player to select a difficulty     Screen changes to another menu	As expected

		"Start" key, "Space"  4. Select the hard difficulty using the assigned key, "3"  5. Navigate chef to the pantry  6. Pick up a tomato  7. Navigate chef to a preparation station  8. Put down tomato  9. Press the assigned key to chop the tomato, "Space"  10. Press the assigned "Down" movement key, "S"  11. Wait until tomato has finished being chopped  12. Press the assigned "Down" movement key, "S"	screen introducing the game 4. Screen changes from the menu screen to the game screen and the game timer starts 5. Selected chef moves to the pantry area of the game 6. A tomato appears on the chef's stack 7. Selected chef moves to a preparation station 8. Tomato appears on the preparation station 9. Chef begins chopping the tomato 10. Chef does not move 11. Progress bar decreases until the tomato is chopped 12. Chef moves downwards	
Fail case	FR_FOOD_FAIL	<ol> <li>Launch game</li> <li>Press the assigned         "Start scenario mode"         key, "S"</li> <li>Press the assigned         "Start" key, "Space"</li> <li>Select the hard         difficulty using the         assigned key, "3"</li> <li>Navigate the selected         chef to the pantry area</li> </ol>	<ol> <li>Game launches</li> <li>Screen changes to another menu screen asking the player to select a difficulty</li> <li>Screen changes to another menu screen introducing the game</li> <li>Screen changes from the menu screen to the game screen and the game timer starts</li> <li>Selected chef moves to the pantry</li> <li>A tomato appears in the chef's stack</li> </ol>	As expected

		<ul> <li>6. Pick up a tomato from the pantry</li> <li>7. Chop the tomato at a preparation station</li> <li>8. Pick up the chopped tomato</li> <li>9. Bake the tomato at a baking station</li> <li>7. There is a progress bar indicating the tomato is being chopped and the chef cannot move</li> <li>8. The chopped tomato appears in the chef's stack</li> <li>9. The chopped tomato becomes a waste item</li> </ul>	
Learnable controls	NFR_OPERATE	<ol> <li>As someone that has never played the game before, launch the game?</li> <li>Press the assigned "Instructions" key, "I"</li> <li>Read the instructions</li> <li>Press the assigned "Instructions" key, "I"</li> <li>Press the assigned "Start scenario mode" key, "S"</li> <li>Press the assigned "Start key, "Space"</li> <li>Select the easy difficulty using the assigned key, "1"</li> <li>Begin playing the game, referring to the instructions visible on the screen when unsure</li> <li>As someone that has never played the game 2. Screen changes to the instructions screen</li> <li>Screen changes to another menu screen asking the player to select a difficulty</li> <li>Screen changes to another menu screen introducing the game</li> <li>Screen changes to another menu screen introducing the game</li> <li>Controls are memorable and the player is able to complete the scenario</li> </ol>	As expected
Helpful graphics	NFR_GRAPHIC FR_ORDERS	<ol> <li>Launch game</li> <li>Press the assigned</li> <li>Game launches</li> <li>Screen changes to another menu</li> </ol>	As expected

		"Start scenario mode" key, "S"  3. Press the assigned "Start" key, "Space"  4. Select the easy difficulty using the assigned key, "1"  5. Move the chef around the map  6. Pick some items up from the pantry  7. Use each of the different stations in the game for their designated task  8. Check the on screen timer to see how much time has passed  9. Navigate the chef to the customer area of the map  screen asking the player to select a difficulty  3. Screen changes to another menu screen introducing the game  4. Screen changes from the menu screen introducing the game  5. It is clear where the selected chef is and which areas are able to be walked on  6. It is clear which items are in the stack and the order of those items  7. The role of each station is clear  8. It is clear how much time has passed since starting the game  9. It is clear what the current orders are by the bubbles next to each customer	
Playable for long periods of time	NFR_DEVICE	<ol> <li>Launch game</li> <li>Press the assigned         "Start scenario mode"         key, "S"</li> <li>Press the assigned         "Start" key, "Space"</li> <li>Select the easy         difficulty using the         assigned key, "1"</li> <li>Play or leave the game         running for 8+ hours</li> <li>Game launches     </li> <li>Screen changes to another menu         screen introducing the game         screen changes from the menu         screen to the game screen and the         game timer starts</li> <li>Game launches     </li> <li>Screen changes to another menu         screen introducing the game     </li> <li>Game launches</li> <li>Game runs with no problems</li> </ol>	

Cross platform	NFR_PLATFOR M UR_DEVICE	<ol> <li>Launch the game on a device using the current version of Windows</li> <li>Press the assigned "Start scenario mode" key, "S"</li> <li>Press the assigned "Start" key, "Space"</li> <li>Select the easy difficulty using the assigned key, "1"</li> <li>Play through the scenario</li> <li>Launch the game on a device using the current version of MacOS</li> <li>Press the assigned "Start scenario mode" key, "S"</li> <li>Press the assigned "Start scenario mode" key, "S"</li> <li>Press the assigned "Start scenario mode" key, "S"</li> <li>Press the assigned "Start key, "Space"</li> <li>Select the easy difficulty using the assigned key, "1"</li> <li>Play through the scenario</li> </ol>	As expected
Winning	FR_WIN FR_SERVED_C OMP	<ol> <li>Launch the game on a device using the current version of Windows</li> <li>Press the assigned</li> <li>Game launches</li> <li>Screen changes to another menu screen asking the player to select a difficulty</li> <li>Screen changes to another menu</li> </ol>	As expected

		"Start scenario mode" key, "S"  3. Press the assigned "Start" key, "Space"  4. Select the easy difficulty using the assigned key, "1"  5. Play through the game, collecting, preparing and serving items to 5 customers  screen introducing the 4. Screen changes from screen to the game so game timer starts  5. The customers leave a increases. After the fif served, the game zoo changes to the win scr	the menu reen and the and gold th customer is ms out
Customer groups	FR_CUSTOMER _GROUPS	<ol> <li>Launch the game on a device using the current version of Windows</li> <li>Press the assigned "Start scenario mode" key, "S"</li> <li>Press the assigned "Start" key, "Space"</li> <li>Select the easy difficulty using the assigned key, "1"</li> <li>Navigate the selected chef to the customer area of the map</li> <li>Watch the customers arrive</li> <li>Game launches</li> <li>Screen changes to an screen introducing the screen to the game so game timer starts</li> <li>The selected chef move customer area of the reason own or in bigger group own or in bigger group</li> </ol>	other menu game the menu reen and the ves to the nap ve on their
Endless mode	FR_ENDLESS_ MODE	Launch the game on a device using the current version of Windows      Launch the game on a device using the current version of windows      Screen changes to an difficulty	

		<ol> <li>Press the assigned "Start endless mode" key, "E"</li> <li>Press the assigned "Start" key, "Space"</li> <li>Select the easy difficulty using the assigned key, "1"</li> <li>Look at the text that has appeared on the screen</li> </ol> <ol> <li>Screen changes to another menu screen introducing the game</li> <li>Screen changes from the menu screen to the game screen and the game timer starts</li> <li>There is a "Customers served: x" graphic on the screen, meaning the player is in endless mode</li> </ol>	
Scenario mode	FR_SCENARIO_ MODE	9   -	As expected