

7.1.28.

#	Title	User Story	Acceptance criteria	
			1. Functional	2. Non-functional
1	GUI	As a player, I must be able to see a GUI consisting of a map subdivided into plots and should be able to gain information about the state of my freehold and my individual plots.	<ul style="list-style-type: none"> • The entire map should be available to the user • Information about individual plots should be shown: <ul style="list-style-type: none"> ○ Which player owns a plot ○ Output of ore, energy, and food ○ Roboticons installed • The total amount of resources a user has must be shown on the GUI 	<ul style="list-style-type: none"> • The map must represent the university of York with at least 3 identifiable landmarks • The map must be split into multiple evenly sized plots • Each player must be uniquely identifiable on the map • The GUI should load in less than 5 seconds
2	Purchasing Land	As a player, I must be able to purchase plots of land to increase the size and productivity of my freehold	<ul style="list-style-type: none"> • The player must be able to exchange currency for more land during the acquisition phase of the round 	<ul style="list-style-type: none"> • Plots will have different strengths and weaknesses in terms of production based on location and terrain type • The player must be able to cancel a purchase to avoid accidental purchases
3	Plot Modification	As a player, I must be able to buy and sell various modifications to my plots to increase productivity and/or style.	<ul style="list-style-type: none"> • The system must provide a number of possible modifications to plots 	<ul style="list-style-type: none"> • The player must be able to view all modifications and choose one to install • Installation must take less than a second

4	Multiplayer	As a player, I must be able to play against someone else - whether that be a human or simulated player	<ul style="list-style-type: none"> • A player must be able to choose whether to play against another human or the computer • At least two users must be able to play the game together • The players will take turns in playing • Up to 4 players must be able to play together 	<ul style="list-style-type: none"> • The simulated player should take no longer than 20 seconds to complete a round
5	Round Structure		<ul style="list-style-type: none"> • The game must be split into multiple rounds • Each round should be made of 5 phases: <ol style="list-style-type: none"> 1. Purchase any unoccupied plots 2. Purchase and customise roboticons 3. Install roboticons on plots of land 4. The colony produces resources 5. The player can buy and sell resources • Phases 2 & 3 must be time limited. 	<ul style="list-style-type: none"> • It must be easy for the player to move between phases • Changes between phases must take no longer than 5 seconds
6	Roboticons	As a player, I must be able to purchase and customise my roboticons so they can produce more of certain amounts of resources	<ul style="list-style-type: none"> • The player must be able to purchase roboticons from the market • The market must have ore to produce roboticons • The user must be able to purchase modifications for the roboticon at the market • The user must be able to install modifications on roboticons • The user must have the option to install a roboticon on a plot of land they own. 	<ul style="list-style-type: none"> • At the start of the game, the market has 12 roboticons

7	Resources	As a player, I must be able to produce resources from my plots	<ul style="list-style-type: none"> • Roboticons are required to produce resources • During phase 4 the user's roboticons will generate resources across the freehold • Food, energy and ore will be generated • Different amount of resources will affect the rate of production 	<ul style="list-style-type: none"> • The resource production should not take more than 5 seconds • The resource production should happen automatically
8	Buying/selling resources	As a player, I must be able to buy and sell resources to other players through an auction, or to the market at a fixed price so that I can maximise my wealth and productivity.	<ul style="list-style-type: none"> • The system must provide an auction facility, where the other player and the market bid for resources • The system must choose a market price based on resource abundance • The player must be able to buy/sell resources from/to other players, or the market 	<ul style="list-style-type: none"> • At the start of the game, the market must have 16 units of food and energy and 0 units of ore • At the start of the game, the player must have a small amount of money
9	Gambling	As a player, I must be able to enter the bar and either win or lose money.	<ul style="list-style-type: none"> • The system must provide a minigame where the player can gamble with their money 	<ul style="list-style-type: none"> • The minigame must give feedback on the money won or lost
10	Winning	As a player, I must be able to win or lose the game.	<ul style="list-style-type: none"> • The system must assign a value to each resource at the end of the game, from which a player's final wealth is calculated • The game must end on the round in which the last plot of land has been allocated. • The player with the highest final wealth must be declared the winner and Vice-Chancellor of the colony 	

The main risks associated with these requirements are risks 3, 4, 5 & 6 as certain requirements may not be able to be implemented due to available tools or staff ability, however risks 8 and 11 must also be considered as they may change the requirements themselves.

DRTN Changes:

Fractal's initial requirements do not take into consideration the brief for the project. So in accordance with:

“Random effects that come into play during a round. Example random effects might include: a meteor shower that damages a plot of land; a volcanic eruption; solar flares that temporarily improve the production of a resource; the unexpected appearance of Donald Trump dressed as a leprechaun (which destroys food production), etc. ”

We have added an 11th requirement as follows:

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11	Random Effects	As a player my gameplay should be augmented by positive and negative random effects to add to the overall game feeling and prevent stagnation.	<ul style="list-style-type: none">• There should be a chance each turn for an effect to influence gameplay that turn.• Either the Player, or Player's plot(s) may be the target of this effect• The effects should be both positive and negative. So Players may sometimes benefit from them rather than being hampered.	<ul style="list-style-type: none">• Effects should be clearly displayed so the player can tell exactly what has happened to them

Along with this, requirement 8.1.1 has been modified. Following our initial requirements elicitation and interpretation the team and user decided that the auction did not fit well in the hotseat style gameplay. Fractal's decision to have the Player go through all rounds before the other player gets a turn in fact makes the auction mechanic feel even more awkward and in keeping with our requirements we have removed this functionality.

8.1.1:

- The system must provide an auction facility, where the other player and the market bid for resources
- The system must provide an auction facility where the Players can buy from the market

Changes for Assessment 4

For Assessment 4 we were given two updated requirements. Up to 4 players must be able to play at once, which is reflected in requirement 4.1.4. We also had to implement a capture the chancellor minigame and the associated requirements are listed in the new section below

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			1. Functional	2. Non-functional
12	Capture the Chancellor	As a player I should have a chance to play the capture the chancellor minigame after placing roboticons on land plots	<ul style="list-style-type: none">• The chancellor must appear on the map• The player should have the opportunity to capture the chancellor• This must happen after the installation phase	<ul style="list-style-type: none">• The minigame should last for no longer than 15 seconds