Requirement Analysis

Functional Requirements

Reference	Description	Mandatory/Desirable
F1	"Will therefore require at least one autonomous computer player agent" – we need to program an AI player into our game, no specific requirements regarding their competency just need to be able to play the game	Mandatory
F2	"The game can be played in two versions: The full game: … The abridged game: …" – need to produce two different modes of the game that the user can select	Mandatory
F3	"Originally designed for up to 6 players … not often possible to find 6 players" – support up to 6 players, not explicitly stated that it has to be 6 players, so maybe more maybe less	Desirable
F4	"At least one autonomous computer player agent" – need to produce an ai player agent for the player to play against	Mandatory
F5	"3) The rules of Property Tycoon, 1 through 28" – need to implement the game rules, view other documents for an in-depth breakdown	Mandatory
F6	"Game player agent needs to be able to play the game, but not necessarily be any good at it" – need to get an AI player to work first, then we can look at adding different sophistication levels. As long as it works it is fine	Mandatory/Desirable behaviours

Non-Functional Requirements

Reference	Description	Mandatory/Desirable
NF1	"Means of monitoring the performance of the simulation" – we will display current statuses for each player	Mandatory
NF2	"Should be fun to play" – we will aim to add features that are 'fun'	Desirable
NF3	"Should … have a colourful and intuitive interface" – we will add colour to the UI and add interactive features to keep the players stimulated	Desirable
NF4	"Reflect the spirit and character of original board game" – we will aim to keep the UI design similar to physical versions of the game	Desirable
NF5	"Ideally be playable of both Macs and PCs" - our aim is to have it work on both, but if not, we will focus on PC development as this is preferred	Desirable
NF6	"No reason to limit liquidity of bank" – bank has unlimited money and is always able to pay players, so no restrictions	Desirable
NF7	"Dice used must be fair and have equal probabilities of landing on each side" – we will implement a fair dice roller	Mandatory

Domain Requirements

Reference	Description	Mandatory/Desirable
D1	"Means of uploading initial data" – we will program the excel files to load into their respective locations on the board, and use the cards as intended	Mandatory
D2	"Game rules 1-28" – define how the game is played, we will aim to implement them all to a high standard	Mandatory
D3	"Win conditions" – the abridged version will have different win conditions to the full game, which we will display on screen	Mandatory