User Requirements (URs)

ID	Description	Priority	User Requirement Link	Status
UR_BASIC_BUILDINGS	The player must be able to place at least one type of each building type; a place to learn, a place to sleep, a place to eat, and a recreational activity.	Essential	SR_PLACE_BUILDINGS	APPROVED
UR_TIME_TRACKING	The game should last for a maximum of 5 real-world minutes.	Essential	SR_TIME	APPROVED
UR_BUILDING_COUNTER	The game should track and display the number of each building type (e.g. sleep, eat, learn, recreational) placed by the player.	Essential	SR_BUILDING_COUNTER	APPROVED
UR_SCORE	Players should have a way to measure their success in the game via various metrics such as student satisfaction, university income, and environmental impact.	High	SR_METRICS, SR_SATISFACTION_IMPACTS	APPROVED
UR_EASE_OF_USE	There should be an intuitive interface with visual indicators for performance (e.g. student satisfaction, building usage).	High	SR_METRICS	APPROVED
UR_BUILDING_LIMITS	The player should be restricted from placing buildings in certain areas of the map (e.g. over a lake, road, or other buildings).	High	SR_BUILDING_RESTRICTIONS	APPROVED
UR_EVENTS	The game will include at least three core events that affect the player's experience and require player interaction (e.g. strikes or fires).	High	SR_EVENTS	APPROVED
UR_DEPLOYMENT	The game should be accessible and run smoothly on standard desktops and laptops across all major operating systems.	High	SR_DEPLOYMENT, NFR_RUNS_WELL	APPROVED
UR_TIPS	The game should include tips and guidance to help players understand how to play the game, such as pre-game tutorials or hints.	Medium	SR_TIPS, NFR_ACCESSIBLE	APPROVED
UR_SETTINGS	The game should include settings to allow the user to adjust in-game sound levels if sound assets are implemented.	Medium	SR_SETTINGS	APPROVED

System Requirements (SRs)

ID	Description	Priority	User Requirement Link	Status
SR_PLACE_BUILDINGS	Players should be able to place, upgrade, and demolish buildings within the game.	Essential	UR_BASIC_BUILDINGS	APPROVED
SR_TIME	Time should be tracked and shown within gameplay, lasting for a maximum of 5 real-world minutes.	Essential	UR_TIME_TRACKING	APPROVED
SR_BUILDING_COUNTER	The game should count and display the number of each building type placed by the player.	Essential	UR_BUILDING_COUNTER	APPROVED
SR_EVENTS	The game should include core events (e.g. strikes or fires) that require player action and occur randomly during the game.	High	UR_EVENTS	APPROVED
SR_BUILDING_RESTRICTIONS	The map should restrict building placement based on rules (e.g. no buildings over lakes/rivers or on existing paths).	High	UR_BUILDING_LIMITS	APPROVED
SR_METRICS	Satisfaction metrics should be visible to players at all times during gameplay.	High	UR_SCORE, UR_EASE_OF_USE	APPROVED
SR_DEPLOYMENT	The game should run smoothly on desktops and laptops across all major operating systems optimised for various hardware.	High	UR_DEPLOYMENT	APPROVED
SR_SATISFACTION_IMPACTS	Building proximity and events should affect player satisfaction, which should be visible in-game.	Medium	UR_SCORE	APPROVED
SR_BUILDING_EFFECTS	Buildings should have different impacts on player satisfaction based on their type and position in relation to other buildings.	Medium	UR_SCORE	APPROVED
SR_SETTINGS	The game should include sound settings for adjusting in-game sound levels, if such assets are included.	Medium	UR_SETTINGS	APPROVED
SR_DIFFICULTY	The game should offer various difficulty levels to accommodate a broad audience of players but should include a baseline level for everyone.	Low	UR_TIPS	APPROVED

Non-Functional Requirements (NFRs)

ID	Description	Priority	User Requirement Link	Status
NFR_RUNS_WELL	The game should run smoothly on all laptops and desktops on major operating systems.	High	UR_DEPLOYMENT	APPROVED
NFR_NO_DELAY	The gameplay experience should be smooth, with minimal delays or lag during player interactions.	High	UR_DEPLOYMENT	APPROVED
NFR_ACCESSIBLE	The game should be accessible to as wide an audience as possible, accommodating players with different needs.	High	UR_TIPS	APPROVED
NFR_GRAPHICS	The graphics should reflect the selected environment, maintaining visual cohesion throughout the game.	High	UR_BASIC_BUILDINGS	APPROVED
NFR_LICENSES	The game should use appropriately licensed sounds and music assets to create an enjoyable in–game experience.	Medium	UR_SETTINGS	APPROVED
NFR_BACKGROUND	The game should include background interactive elements (e.g. students walking) to make the map appear more dynamic and engaging.	Low	UR_BASIC_BUILDINGS	APPROVED

Constraint Requirements (CRs)

ID	Description	Priority	User Requirement Link	Status
CR_LOCAL	The game should run locally on a device without needing an internet connection.	High	UR_DEPLOYMENT	APPROVED
CR_LOW_SPEC	The game should be optimised to run on low-spec devices, ensuring it is accessible to all players.	High	UR_DEPLOYMENT	APPROVED
CR_LEGAL	The game should be legally compliant, using appropriately licensed and attributed assets.	High	UR_SETTINGS, UR_BASIC_BUILDINGS	APPROVED