

Requirements

Cohort 1, Group 5

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After reading through the brief and discussing initial ideas about the game, we all agreed that the brief lacked the depth and direction needed to guarantee we met the stakeholder's expectations. For this reason we decided to conduct an interview with our stakeholder, Kostas Barmpis. We believed a semi-structured interview would yield the best results, as we could have a set list of questions that would fill the gaps in the brief, while also being able to ask follow up questions to gain further insight into specific areas. Our questions covered areas including, but not limited to:

- Target audience
- Game difficulty
- Controls
- Game design

Following the interview, we compiled the information into a series of requirements that the game must include. We split these into user requirements and software requirements (Functional and Non-functional). These requirements will be presented in 3 separate tables. These tables will provide a clear and organised structure that allows for updates to be made easily as well as allowing us to refer to specific sections of the requirements.

User Requirements

ID	Description	Priority
UR_GAME_STYLE	The game may be realistic or humourous, with some jokes.	May
UR_STUDY_CONTENT	The game may follow uni modules but doesn't have to.	May
UR_POV	The game may be top-down or side-on.	May
UR_RECREATION	The recreation done may affect the score the user achieves.	May
UR_AUDIO	The game may have audio (if it is licensed correctly).	May
UR_MAP	The game may have one or multiple scenes.	May
UR_SCORING	The user must be able to perform activities to make their score better.	Must
UR_RECREATION_RANGE	The user must be able to do a range of activities.	Must
UR_SLEEPING	The user must sleep everyday, it should also reset the energy bar.	Must
UR_ACTIVITIES	The user must be able to sleep, eat, study, and relax.	Must
UR_STUDY	The user must be able to study at least once per day for their exam.	Must
UR_STUDY_CATCHUP	The user must be able to catch up on one missed study sessions	Must
UR_ENERGY	The user must have a set amount of energy per day.	Must
UR_LOCATIONS	There must be at least one place to study, one to sleep, one to eat, and one to do a recreational activity (more in the future)	Must
UR_TIME	The game must take place over a week with each day being 16 hours.	Must
UR_ACTIONS	The user must be able to perform actions, each action takes X hours and uses X% of their energy.	Must
UR_GAME_LENGTH	The game shall provide a short playtime of 5-10 mins.	Shall
UR_AGE_RANGE	The game shall be appropriate for people between 16 and 20.	Shall
UR_GAME_TONE	The game shall be light-hearted, positive with nothing extreme.	Shall
UR_SYSTEM_REQUIREMENTS	The game shall be able to run on any computer with standard specs.	Shall
UR_RESOLUTION	The user shall be able to resize the screen.	Shall

UR_UI	The user shall be shown a reasonable level of info about the game on the screen.	Shall
UR_MOVEMENT	The user shall be able to move around with WASD.	Shall
UR_AVERAGE_SCORE	The user shall be able to achieve a score of 60-70 relatively easily, higher scores should be harder.	Shall
UR_HIGHSCORE	The user shall be able to see their highest score.	Shall
UR_HEALTH	The user shall not be able to die or anything too extreme.	Shall
UR_0_ENERGY	The user shall still be able to do activities with 0 energy.	Shall
UR_ACTIVITY_TIME	The time for activities shall be constant but may change in the future.	Shall

Constraint Requirements

- Greenfield Development to be completed by 21 March 2024
- Brownfield Development to be completed by 23 May 2024
- Shall run on standard desktop pcs and laptops and not need any advanced specs
- Game to be designed for 16 to 20 year-olds
- Game must be light-hearted
- Game is to show a student at university studying for exams
- Player is to sleep, eat, study and have recreation as part of the game

Functional Requirements

ID	Description	User requirements
FR_RECREATION_RANGE	the system must have a range of activities for the user to perform	UR_RECREATION_RANGE
FR_POINT_ALLOCATION	the system must have a number of points allocated for each activity	UR_SCORING
FR_INFO_PRESENTATION	the system shall present relevant information of the level on the screen to the user	UR_UI
FR_POINT_BRACKET_REQ	the system shall have a range of requirements that will get you up to the next point bracket as the game progresses	UR_AVERAGE_SCORE
FR_HIGHSCORE_DISPLAY	the system will display the highest score to the user either on the screen or when requested by the user	UR_HIGHSCORE
FR_0_ENERGY_ACTIVITY	the system will have activities that take up 0 energy, but the user will not be	UR_0_ENERGY

	allowed to do energy needed activities when low	
FR_TIME_ALLOCATION	the system will have allocated amounts of times dedicated to each activity	UR_ACTIVITY_TIME
FR_SLEEP_REQ	the system will have it so the user will be required to sleep everyday	UR_SLEEPING
FR_MIN_RECREATION_RANGE	the system must facilitate the user to sleep, eat, study, and relax (as well as do recreational activities)	UR_MIN_RECREATION_RANGE
FR_STUDY_MIN	the system must facilitate the user to study at least one time per day	UR_STUDY
FR_STUDY_CATCHUP	the system must facilitate the user to catch up on studying if they happen to miss a day	UR_STUDY_CATCHUP
FR_INITIAL_ENERGY_AMOUNT	the system must allocate the user an amount of energy per day	UR_ENERGY
FR_ACTION_ENERGY_ALLOCATION	the system must allocate every activity a certain amount of energy to be used by the user	UR_ACTIONS
FR_USER_MOVEMENT	the system shall facilitate the user to be able to move round the screen/the environment	UR_MOVEMENT

Non-Functional Requirements

ID	Description	User requirements
NFR_GAME_TIMES	the game itself will be a week worth of days and be finished by the user in a short play time of 5-10 minutes	UR_GAME_LENGTH
NFR_SCREEN_SIZE	the system shall be able to tolerate minor differences in the sizes of computer screen the user chooses to use, and adjust accordingly	UR_UI
NFR_USER_EXPERIENCE	the system shall be easily playable by users that have not played the game before	UR_SCORING
NFR_LANGUAGE	all customer facing messages shall be in english	UR_UI
NFR_ACTIONS	the system shall draw the amount of time and energy of an activity from the user interacting with the building associated with it	UR_ACTIONS, UR_UI