Change Report

Group 8 Members

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Formal approach

Change Report

Initial core changes were identified through the comparison of the undertaken product with product brief and inherited requirement table; changes were identified using colour highlighting. It was essential changes to the undertaken product and deliverables were planned, justified and clear; it was of higher importance that each change never happened in isolation and were unanimously agreed upon by the team as a whole.
The change report sought to uphold said values, holding a summarised record of each change. Upon a team conclusion of the changes required to be made to any of documentation or code, the applicable change report was updated with the appropriate records.

Each record encompassed:

- Change ID
- Description of the change to be made
- Corresponding test ID
- Start date (date agreed upon)
- End date (date completed)

Google Docs

All undertaken deliverable documents were cloned and separated into a working copy to accommodate modifications and additions and a backup copy serving as an archive. Up until final publication, all changes were made as suggestions. This highlighted the new documentation content and enabled other teammates to give approval to changes. Previous versions of the documentation could be accessed through the embedded version control.

Git

A new development branch was created staging as an environment for the testing of new features, separating them from the main branch where the final stable product was published. Feature branches were used to enable synchronous work on multiple core product requirements. Changes to the code were identifiable through the branch history in which all commits are shown.

Requirements

Updated Deliverable: Requirements

Initial core changes were identified through the comparison of the undertaken product with product brief and inherited requirement table; changes were identified using colour highlighting.

ID	Description	Justification	Cost	Effect On Project
REQ1	Marked UR_HOSTILE_BUILDING_COMBAT as incomplete as it was not implemented by the previous team.	After assessing the project when we initially took it on we discovered this requirement hadn't been met and as such we needed to implement it to catch up.	< 1 Hour	Extra work needed on implementation to catch up so we could start the new features required for assessment 2.
REQ2	Marked UR_HOSTILE_COLLEGE_CAPTURE as incomplete as it was not implemented by the previous team.	After assessing the project when we initially took it on we discovered this requirement hadn't been met and as such we needed to implement it to catch up.	< 1 Hour	Extra work needed on implementation to catch up so we could start the new features required for assessment 2.
REQ3	Marked UR_GAME_LOSE as incomplete as it was not implemented by the previous team.	After assessing the project when we initially took it on we discovered this requirement hadn't been met and as such we needed to implement it to catch up.	< 1 Hour	Extra work needed on implementation to catch up so we could start the new features required for assessment 2.
REQ4	Marked UR_ALLEGIANCE_COLLEGE as incomplete as it was not implemented by the previous team.	After assessing the project when we initially took it on we discovered this requirement hadn't been met and as such we needed to implement it to catch up.	< 1 Hour	Extra work needed on implementation to catch up so we could start the new features required for assessment 2.
REQ5	Marked UR_CAPTURING_COLLEGES as incomplete as it was not implemented by the previous team.	After assessing the project when we initially took it on we discovered this requirement hadn't been met and as	< 1 Hour	Extra work needed on implementation to catch up so we could start the new features required for assessment 2.

		such we needed to implement it to catch up.		
REQ6	Marked UR_SHIP_COMBAT as incomplete as it was not implemented by the previous team.	After assessing the project when we initially took it on we discovered this requirement hadn't been met and as such we needed to implement it to catch up.	< 1 Hour	Extra work needed on implementation to catch up so we could start the new features required for assessment 2.
REQ7	Added UR_OBSTACLE_ENCOUNTER as a new requirement for assessment 2.	Obstacles and Encounters were a requirement of assessment 2.	< 1 Hour	This change helped bring all requirements up to spec with the new assessment 2 changes.
REQ8	Added UR_WEATHER_ENCOUNTER as a new requirement for assessment 2.	Weather was a requirement of assessment 2.	< 1 Hour	This change helped bring all requirements up to spec with the new assessment 2 changes.
REQ9	Added UR_SPEND_MONEY as a new requirement for assessment 2.	Spending earned plunder was a requirement of assessment 2.	< 1 Hour	This change helped bring all requirements up to spec with the new assessment 2 changes.
REQ10	Added UR_SAVE as a new requirement for assessment 2.	Saved games were one of the extra requirements for assessment 2	< 1 Hour	This change helped bring all requirements up to spec with the new assessment 2 changes.
REQ11	Added UR_DIFFICULTY as a new requirement for assessment 2.	Difficulty was a new requirement.	< 1 Hour	This change helped bring all requirements up to spec with the new assessment 2 changes.
REQ12	Added UR_POWERUPS as a new requirement for assessment 2.	Powerups were a late addition but were discovered to also be required for assessment 2.	< 1 Hour	This change helped bring all requirements up to spec with the new assessment 2 changes.

Abstract and Concrete Architecture

Updated Deliverable: **Arch1.docx**
PlantUML Code and Diagrams: Architecture Diagrams

ID	Date	Change Made	Justification	Cost	Status
ARCH1	30/04/2022	Made updated PlantUML code and diagrams	New requirements in assessment part 2 need new functionality, which can be coded in new and updated classes. This should be shown in the architecture.	~ 4 Hours	Completed
ARCH2	01/05/2022	Removed InputManager from PlantUML diagrams and Arch1	InputManager does not actually exist in implementation	< 1 Hour	Completed
ARCH3	01/05/2022	Deleted reference to FR_SHIP_KB_INPUT in Arch1	It referenced InputManager, which does not exist.	< 1 Hour	Completed
ARCH4	01/05/2022	Added updated version of concrete Architecture To Arch1 file	Arch1 for Assessment part 2 needs the updated architecture to prove how it solves part 2 requirements	~ 2 Hours	Completed
ARCH5	01/05/2022	Updated figure 3.1.3 in concrete architecture is now vertical and not horizontal	Although slightly bunched up, it was slightly easier to save space in a vertical format with the updated PlantUML diagrams.	< 1 Hour	Completed
ARCH6	02/05/2022	Added Relations to ‘Screens’ to Fig 3.1.4	Allows Managers who had no relationships in the previous fig 3.1.4, like QuestManager, SaveManager etc, to be linked and thus provide justification on how code / architecture solved requirements	< 1 Hour	Completed
ARCH7	02/05/2022	Separated ‘Entities and Components’ in old Fig 3.1.4 to individual ‘Entities’ and ‘Components’	Allows for Better understanding of which managers helped with functionality for different entities and components	< 1 Hour	Completed
ARCH8	02/05/2022	Added Relationship between CollisionManager and PhysicsManager in fig 3.1.4	CollisionManager has no other relationships and is called in no other piece of code. Without showing the relationship with it being used in PhysicsManager people may wrongly assume that CollisionManager is never used in our program	< 1 Hour	Completed

ARCH9	02/05/2022	Lines to signify relationships in fig 3.1.4 and fig 3.1.3 were edited using WPS Office rather than Adobe photoshop	WPS Office is free whereas Adobe photoshop is not. More importantly there is no significant loss of functionality when all that is needed is to add lines to signify relationships	< 1 Hour	Completed
ARCH10	02/05/2022	Edited part of text describing concrete architecture as a ‘higher-level abstraction’	Concrete architecture is more suitable to justify how the code’s functionality met the assessment requirements, abstract architecture is more suitable to plan the implementation	< 1 Hour	Completed
ARCH11	02/05/2022	Edited part of text describing how concrete architecture built on abstract architecture	Felt it could be explained a bit more clearly.	< 1 Hour	Completed
ARCH12	02/05/2022	Edited part of text describing ‘architecture planning stage’	Felt that this may cause a misunderstanding and was a wrong description. Concrete describes the implementation, while abstract plans it. Previous text implied concrete architecture also planned the implementation.	< 1 Hour	Completed
ARCH13	02/05/2022	Added text stating purpose of concrete architecture is to prove assessment requirements are met.	Previous explanation did not satisfy us. It is true developers can use concrete architecture as a basis for followup code, but the implication in the previous explanation was that the concrete architecture never mirrored the implementation, which seems wrong. I edited the text to make it more clear.	< 1 Hour	Completed
ARCH14	30/04/2022	Added SaveManaager CaptureManager DifficultyManager CaptionManager EnhancementManager SaveManager	Managers were required to handle multiple new functionality relating to the following requirements: UR_SAVE UR_HOSTILE_COLLEGE_CAPTURE UR_DIFFICULTY UR_POWERUPS	< 5 Hours	Completed
ARCH15	30/04/2022	Added Boulder Enhancement SeaMonster	Components were created to fulfil the requirements: UR_OBSTACLE_ENCOUNTER UR_POWERUPS	< 3 Hours	Completed

Method Selection and Planning

Updated Deliverable: Method Selection and Planning

ID	Date	Description	Justification	Cost
MP1	01/03/2022	Changed development cycle from plan-based to agile.	Our development cycle is different from the previous team and this needed amending.	< 1 Hour
MP2	01/03/2022	Changing to a more balanced approach in assigning tasks.	We had a core focus slightly different to the previous team in that we wished to keep assignment of tasks pretty even.	< 1 Hour
MP3	01/03/2022	Change focus of meetings to reviewing requirements.	Requirements based development was a huge focus of our group and as such this emphasis was added.	< 1 Hour
MP4	01/03/2022	Changed primary method of communication to Discord.	Unlike the previous team we did not use Zoom.	< 1 Hour
MP5	01/03/2022	Changed Trello board to Github Project board.	Our team was already more familiar with this so keeping it the same made the most sense.	< 1 Hour
MP6	01/03/2022	Emphasising team experience with Intellij IDE from assessment 1.	The team was most familiar with Intellij, this was primarily due to assessment 1 so making this clear is important.	< 1 Hour
MP7	01/03/2022	Removing use of Adobe Photoshop.	Our team managed to use the PlantUML tools built into Google Docs to achieve all we needed with documentation.	< 1 Hour
MP8	04/03/2022	Reason of using LibGDX changed because the previous group used it.	After assessment 1 it wouldn't be our top pick but seeing as group 3 used it that's what we settled on.	< 1 Hour
MP9	04/03/2022	Section of alternative game engine consideration removed.	This section isn't as relevant seeing as the choice of engine was of the last team not us.	< 1 Hour
MP10	04/03/2022	Removing official team roles section.	Due to the approach taken by our team in assessment 2 (more on this in **MP11**) we found this was not relevant.	< 1 Hour
MP11	06/03/2022	Description of our team's hybrid approach to roles, and how we adapted over the course of the project.	We found after assessment 1 that having static official roles was too restrictive and as such we opted for a dynamic which is outlined in the Team Roles section here.	~30 mins

MP12	06/03/2022	Removing group role examples from the previous group.	No relevance to the current team and our workflow.	< 1 Hour
MP13	06/03/2022	Changed task tracking method to Github Kanban board.	Our team used this as we were more familiar from previous experience in assessment 1.	< 1 Hour
MP14	06/03/2022	Included justification for the kanban board as opposed to more strict formal methods.	Our team used a more dynamic system for task allocation and time tracking than the previous group.	< 1 Hour
MP15	06/03/2022	Changed method for compiling the snapshots to a summary of the kanban board.	This method needed amending as our method was different to the group previous.	< 1 Hour

Risk Assessment and Mitigation

Updated Deliverable: Risk Assessment

- The risks from the previous team in the risk register have not been removed as they are still very relevant to this next part of the project.
- Some of those previous risks have been altered to reflect our team approach better and those changes have been recorded below.
- Some new risks have also been added to the risk assessment that are more associated with assessment 2 and have also been recorded below.
- Some risk likelihoods have also been changed to better reflect our team as recorded below.

ID	Date	Change Made	Justification	Cost	Status
N/A	20/03	Reformatted their Risk assessment document	Changed the descriptions key for the risk register to be clearer and the table format to be clearer as well.	< 1 Hour	Completed
N/A	20/03	Changed the name of the risk owners	As we had taken over this project, we needed to show who the new owners of the risks were.	< 1 Hour	Completed
Multiple	20/03	Added new risks to risk assessment	Added new risks associated with the new requirements for assessment 2 such as communication with the previous team and ensuring appropriate testing of code.	< 1 Hour	Completed
R2	20/03	Changed likelihood	As with minimal testing we will be able to tell if its too challenging or not	< 1 Hour	Completed
R4	20/03	Changed the mitigation method	To better describe our team's approach to the mitigation for this risk	< 1 Hour	Completed
R8	20/03	Changed the mitigation method	The previous mitigation method wasn't appropriate	< 1 Hour	Completed
R15	20/03	Using discord for communication as opposed to Trello	We were used to using discord for communication for the previous assessment and it worked well for us.	< 1 Hour	Completed