31262 / 32003 Intro to Game Design
Assessment 4: Design & Build a Digital Game (40%)

Due

Game WebGL Executable submitted to https://itch.io/jam/uts-intro-to-game-design-2021 **before your lab in Week 12**.

Peer review playtests in labs of **Week 12.**

Individual and Group Reports submitted on Canvas by **23:59hrs Friday 21st May.**

Overview

Type	Category	Percent of Assess	Item	Item Marks
Group	Game Quality from Other Groups	25	Originality	1
			Internally Complete	1
			Functional / Tutorial Level Quality	1
			Challenge (relative to skill)	1
			Progression of Challenge over Levels	1
			Level Time / Pacing	1
			Premise / Characters / Narrative	1
			Polish (visual / audio quality and cohesion)	1
			Balance / Meaningful Choice	1
			Overall Entertainment	1
	Group Report	12.5	Use of Themes	3
			Game Analysis Report	3
			Resources Page and All Design Diaries / Playtest Record	0
	Marketing Material	12.5	Itch.io Page Design	2
			Gameplay Video	2
Individual	Participation	25	Activity Tracker Entries	3
			Evaluation score by group members	3
			Level in game with new mechanic	4
	Individual Report	25	Level plan diagrams and analysis	4
			1 x Design Diary Entry	2
			2 x Playtest Plan and Results	4
			Total	40

Task

Design and build a digital game in your assigned groups using the design methodologies discussed within the subject. This is an entirely new game design, not your board game made digital. For examples of games made in previous years, go to the UTS Games Studio website (http://www.gamesstudio.org/games) and look for games in the subject "Introduction to Game Design"

Themes – Following a standard Game Jam setup, your game **must incorporate 2 of the following** abstract themes in some way. These are taken from suggestions on the Discord server (with Discord names of the suggester shown). Some have conditions on them to limit how you can use them.

- **"Adapt, evolve, overcome"** - Jreaming
  - This cannot apply to the unique mechanics designed/developed by each group member, this is already part of the assessment (see "Level" below)
- **"Increasing Discomfort"** - !tsRai
  - This cannot apply to increasing challenge, this is already part of the assessment (see "Challenge over time / pacing" in the Game Quality grading scheme)
  - This cannot apply to social discomfort (e.g. the game is uncomfortable because of inappropriate or culturally insensitive premise, narrative, or characters – aim for inclusion in your games!)
- **"Truth is not important**" - Nan
- **"It's a baguette!"** – Nyxi / Edisu
  - This cannot apply to simply substituting a baguette sprite/model for a typical character or game item (e.g. swap a sword for a baguette).
- **"4-bit colour palette only"** - CB
  - This may only apply to your visual style. All visual assets (including particle effects) in the game must adhere to this palette.
- **"I've got a feeling we're not in Kansas anymore"** – Stephen King
  - This (and all other themes) cannot apply simply as a single line of dialog in your game.
- **"Physics and Primitives"** – ItsFitzy
- **"The life of a rain drop"** – David-H
  - See "It's a baguette" rule above
- **"Trust and Betrayal"** – Yijun Zhang
- **"Leveling up makes you weaker"** – Ryan
  - This cannot apply to simply changing in-game values (damage dealt, health gained, starting gold, etc.) to be lower in each successive level in the game

How you interpret these themes is up to you. For example, it may be used to inform your core mechanics /formal elements or your premise / narrative. Allow these themes to drive your creativity in you brainstorming – try to think about them in unique ways rather than trying to argue how they fit a typical game design in commercial games.

And no, you do not get more marks for hitting more themes.

Kit Bashing / Look & Feel – This subject is about refining designs through rapid prototyping and testing, by any means necessary. You can use whatever art (visual & audio) assets you can find/gather from the internet as long as you provide a reference to where you got it from in your group report submission. Unity also has an extensive Asset Store (https://assetstore.unity.com/), and you're free to use any art assets (e.g., sprites and sounds) and some code assets. However, you are **not allowed to use assets that aid in your game design** (e.g., procedural level design systems) or **complete projects / tutorial projects without substantial modification**. That is, your game can be pieced together using assets from around the internet, but **the game design should be uniquely yours.**

We strongly **suggest that your gameplay and art assets be in 2D**. Making and working properly with 3D assets is a further challenge that detracts your attention away from the main learning goal of this subject, i.e., Game Design. However, ultimately, the choice is up to your group and what they believe to be achievable with the skills within the group.

Levels – There must be **one level per student** in the group plus **one extra tutorial level** at the start of the game. Each student is responsible for designing and making 1 level, which **should introduce a new mechanic/feature to the game and, where possible, combine it with the others already introduced**. This new mechanic should make the level feel unique enough to make the player think carefully about how they will approach the change of gameplay. The group as a whole is responsible for designing and making the tutorial level that introduces the core mechanics of the game. For example, if there are 3 group members, then there should be 3+1=4 levels in the game.

Time – It should be possible to finish the game (or experience all the levels in the game) in a **maximum 20 minutes.** This can be variable depending on the skill of your playtesters, but on average some players should be able to finish the game (especially the members of your group). You should include a **level select functionality** so that playtesters can try every level in your game in the final playtest even if they can't complete a level.

Playtesting Platform – For playtesting, your game will be hosted through **the "Game Jam" functionality of Itch.io**. See the top of this specifications document for the URL to the Itch.io site for this subject. Your group in this assessment should have **one Itch.io submission for the entire group**. You can submit as many times as you like to this page and you should do so **every week before your lab so that you can host playtest sessions** through Itch.io. If your group has trouble

accessing the Itch.io page for this subject due to your currently location or internet connection, please contact the subject coordinator.

For the **final playtest, you must upload your game as a WebGL executable** so that your game can be played in a web browser. **There are instructions for this on the UTS Canvas page for Assessment 4.** Unity's WebGL player supports Firefox, Chrome, Safari, and MS Edge. If you are having difficulty running the game in the browser but no one else in your group is, update your browser (see https://docs.unity3d.com/Manual/webgl-browsercompatibility.html). Also note that some Unity features, such as postprocessing, do not work in WebGL.

Final Playtest Procedure – The final grading playtests will happen in the due date week marked on the first page. Your game will be played and graded by at least 4 other groups. These will take place using **your Itch.io URL** (either in Zoom Breakout rooms or assigned by the tutor in the Face-2-face class). **No group member from the host team will be allowed to interact with their final playtesters**. That is, every group will be in a separate breakout room on Zoom or in a separate area of the classroom and given URLs of games to play. Therefore, you should insure that your game is "functional" (players know how to play from the tutorial level) and "internally complete" (your game doesn't have any serious bugs or level design oversights that prevent progress through the game). **Playtests will start 10 minutes after your lab starts** - if your group is not ready, you will receive a 0 for the Game Quality component.

Trello – Groups are **expected to use Trello.com as a way of tracking group member participation** and allocating weekly tasks for each group member. This should be done in the same way as Assessment 1 (Board Game), so see those specifications for details.

Unity – For this project it is recommended that you use the **Unity Engine** (http://unity3d.com) to build your game. You should **ensure that all group members are using the same version of Unity** or else you will have compatibility issues when sharing the project with each other. The following version of Unity is installed in the CB11.06.102 computer lab, so if you are doing a face-2-face lab you should use this version:

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2020.2.4f1

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There is a lot of documentation, tutorials and communities online for Unity. Here are some useful resources:

- The Assessment 2 (Unity Fundamentals Quiz) on Canvas, along with the two associated tutorial projects.
- Unity Learn – https://learn.unity.com has a lot of good tutorials for beginners, some free and some paid. A good starting place or if you need a full refresher is the Haunted Jaunt tutorial: https://learn.unity.com/project/john-lemon-s-haunted-jaunt-3d-beginner
- YouTube – Explore tutorials on YouTube. Brackeys has a good series from 2017 that is still mostly accurate with the current version of Unity https://youtu.be/IlKaB1etrik

It is up to you to gather your own knowledge and resources to make your game. If your group wishes to use a different game engine or system, please talk to your lecturer first.

Version Control – Again, while not required in the marking criteria, it is strongly recommended that your group use a version controlling system such as Git (https://github.com/) or the in-built Unity Collaborate feature (https://unity3d.com/unity/features/collaborate). This will make sharing of your project and simultaneous work on the project much more efficient. However, be mindful of merge conflicts – plan tasks for each group member and avoid working on the same assets / code at the same time wherever possible and remember to commit and push your work often.

Deliverables

Group Submission:
One group member must submit the game to the Itchi.io Game Jam submission page before the final playtests. See intrsuctions above in "Final Playtest Platform".

One group member must submit a single PDF file to Canvas for this assignment, in the following naming convention:

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group**<group_name>**_a4.pdf

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where <group number> is the group's number from the Groups section of Canvas.

This PDF document will contain the following items:
1. Title of the game and student numbers and names of every group member.
2. ONE paragraph pitch of the game
3. URL link to the Itch.io game page
4. URL link to the marketing YouTube video
5. Game Analysis Report (see marking criteria below under "Game Analysis Report")
6. Screenshots of the complete Trello history for this assessment.
7. All individual Level Plans, Design Diaries, and Platytest Records from each group member.

Individual Submission:
Each group member should submit a single PDF file on Canvas through the Individual Submission portal on the Assessments page, with the file in the following naming convention:

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group<group number>_a4_<student number>.pdf

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where <group number> is the group's number from the Groups section of Canvas and <student number> is the individual student's UTS student ID number.

This PDF document will contain the following individual contribution documents:
1. Evaluation score and justification for each group member, including yourself.
2. ONE Level Plan and Analysis.
3. ONE Design Diary entry.
4. TWO Playtest Plan and Result entries.

Note for all written reports: *Page sizes must be A4. Font is 12pt Arial, Calibri, or Cambria single-spaced. Submit in PDF format only.*

Grading Details

Criteria	Details	Marks
Game Quality from Other Groups (marked during Week 5 labs)	**Final Playtest** The quality of the game will be graded by your tutor and multiple other groups in your lab playing your game and providing it a grade over the below items: • **Originality** – How unique is the game? Is it just a small adjustment on an existing popular game or does it have new elements that make the experience novel? • **Internally Complete –** How many bugs are there in the game? How damaging are these bugs to the experience of the core gameplay? • **Functional / Tutorial Level Quality** – Can the game be played unaided by anyone? Does the tutorial level properly introduce the core mechanics of the game? Is this done in an integrated way with level design? • **Challenge** – Is the challenge appropriate for the game type and for the audience of players? People's skills will vary but the game should be aimed at the average skill set of your lab class. Is the challenge the result of careful design or just difficult due to unrefined controls, information visibility, etc. • **Progression of Challenge over Levels** – Does the challenge increase appropriately over the levels? The game should ease the player into the core mechanics and build up the challenge before putting players to the test of all their skills in the final level. • **Level Time / Pacing** – Does each level require a similar	**10**

amount time to complete? Do the levels have periods of low intensity action and higher intensity action that requires more skill and/or thought?

- **Premise / Characters / Narrative** - Does the game have a consistent and sensible premise/theme that frames at least a minimal narrative in the game? Are there clearly identifiable characters (at least the protagonist(s))?
- **Polish** – Is the game at least minimally visually and aurally appealing. Do the visuals and audio of the game reinforce and accentuate the premise and gameplay. Is there a consistent visual and audio style used throughout the game or does appear to be an unorganized mix of assets?
- **Balance / Meaningful Choice** – Are game objects (weapons, resources, abilities, etc.) balanced such that none are overpowered or underpowered unless specifically designed to be so? Does the player have options for how to overcome obstacles? Can the player make meaningful choices and/or formulate varied viable strategies or ways of playing?
- **Overall entertainment** – Was the game fun to play? Is it a game you would play again or recommend to others that enjoy board games?

Group Game Analysis Report (one Canvas submission per group)	**Use of themes (1 page)** Describe how you used the prescribed themes for this assessment as inspiration for your game. Marks are allocated for: - Creative use of themes – think outside the box. Do not just take them at face value and replace models / textures to meet the theme or argue that typical game mechanics meet the requirements of the theme. - Theme is integral to core game mechanics – The themes should be reflected in the core formal and dramatic elements of the game.	**3**
	Game Analysis Report (no max pages) As a group, analyse the game that you have created using terminology and theory from the lectures. This is not to be as detailed as your Assessment 3 report, but instead should use the group activities from the following labs slides (available on Canvas) to analyse your game and discuss it in a meeting minutes / design diary format:	**3**

	- Week 3 Formal Elements – Slides 4 – 10 - Week 4 Challenge and Play – Slides 8 - 11 - Week 7 Meaningful Choice – Slide 6 - Week 8 Marketing – Slides 3 and 5 - Week 9 Tutorial Level – Slide 3 - Week 10 Level Flow – Slide 3 It is recommended that you do this in Week 10 or 11 and be honest about the current state of your game. This will allow your group to use the findings to better understand your game, focus the design, and fix issues.	
	Trello Activity History [no max pages] In Trello. Open up the Menu on the left side of the screen. Here you can see a history of all activity in creating and moving cards on the board. Take multiple screen shots of this list, capturing the full list for this assessment, and paste them into a single document for submission (see group submission details above).	[used for individual participation grade]
	Resources / Reference List (no max pages) This assessment encourages Kit Bashing (i.e. the re-use of existing assets from around the internet). However, you must provide a complete list of where each asset came from. For example: - Base project – "Unity Dummy Tutorial", www.unity.com/learn/dummy_tutorial - Camera movement script – "How to Make Professional 2D Unity Camera", www.youtube.com/xyz - Fish 3D model – "Fish Model Collection", www.assetstore.unity.com/zyx - Etc. There are no marks for this but failure to include it will result in a 0 for the entire Group Game Analysis Report component.	**0**
	All Design Diaries and Playtest Records (no max pages) As with Assessment 1, include each group member's design diary entry and playtests records. There are no marks for this but failure to include it will result in a 0 for the entire Group Game Analysis Report component.	**0**
Group Marketing Material	**Itch.io Page Design** Your Itch.io page is similar to the website or marketplace portal (e.g. Steam page) for your game. It should be attractive and sell your game well. This page should: • Include the game Title and the Names of the group	**2**

	members • Contain representative images of your game. • Contain the Gameplay Video (see below). • Convey the Premise of the game. E.g. What is the game about? • Convey the core mechanic (objective, procedure, etc.) of the game. E.g. What will the player experience in the game? The last two points above should use minimal text (e.g. 1 paragraph each). Your game is better marketed through visuals than it is through text and your game should be "functional" in that it teaches players how to play rather than using text based tutorial on the Itch.io page.	
	Gameplay Video [60 seconds max] Upload a video to YouTube showing your game. The URL for this video must be included in your group report (see above). You can use OBS Studio, Windows Game Capture, Quicktime Pro, CamStudio, Fraps or some other program for capturing/editing. The video should: • Show all the interesting objectives and procedures in your game across the various levels. • Highlight the meaningful choices within the game and how they lead to varied gameplay or narrative. • Show-off exciting gameplay moments, such as those seen during weekly playtests. • Make use of subtitles, captions, or voiceovers to provide context to the visuals of the video.	**2**
Individual Participation	**Activity Tracking** Through evidence in the Individual Design Diary entries: • Contribution in meeting minutes – e.g. name in meeting attendance list and consistently listed against input recorded in the minutes. If you cannot attend in any given week, you should still provide your group with valuable input before or after the meeting to be added to the minutes. • Trello history (see above for more details) • Your group may provide other evidence in the group report as well if they like, such as the Commit history of your version control system or edit history of a Google Doc.	**3**

	Peer Review Score from Other Group Members Each group member's marks for this will be a median average of the scores given to them and moderated by the tutor and/or Subject Coordinator if need be. (See below for more details)	**3**
	Individual Level in Game Each group member needs to have a fully implemented and playable level within the game. This level must: • Fit with the overall premise of the game • Progress the challenge of the game from the level before it. • Have a unique player procedure, objective, or rule that is not seen in levels before it and that substantially changes the feel of the game and/or requires the player to learn a new skill/strategy. • Where possible, this should build on the level before it to combine features from throughout the game and make the game feel like a single experience, rather than a jumble of levels.	**4**
Individual Report (one Canvas submission per group member)	**Peer Review [200 words per group member]** Every group member will need to provide an **anonymous** peer review of **every other group member** AND **themselves**. This will be **a numeric score between 0-3** and **a short justification of grade** / explanation of that group member's contributions to the group (200 words max per group member). You MUST provide both the SCORE and the JUSTIFICATION. If you do not provide a peer review of everyone else in the group, you yourself will be given **0 marks** for this item.	[used for individual participation grade]
	Level Plan Diagrams and Analysis [1 level, no max pages] Each group member should write about the level that they designed and implemented. This should include: • An overview of the level and the gameplay mechanic that it introduces. • How this level fits with the other levels in the game to produce single game experience. • How the level was designed to make use of the new gameplay mechanic and encourage the player to learn new	**4**

	skills or make new meaningful choices. • Any diagrams or screenshots from brainstorming sessions or development that show how the level evolved over time, such as from playtests. • An analysis of how the level turned out and what could be done differently or improved if time permitted.	
	Design Diary [1 design diary entry, no max pages] Each group member must complete 1 Design Diary entry for a single week's lab between Week 7 to 10. See the Assessments page on Canvas for a template to get you started with these. • Keep an accurate, well-structured journal of your design process. • Record the minutes of the meeting • Record the dates, start and end time, people in attendance, and the activities of each design meeting you hold. • Record all ideas generated, explain how they were tested or dismissed, and any decisions made during that meeting.	**2**
	Playtest Plan and Result Records [2 playtest min, no max pages] Each group member must plan and conduct at least TWO playtests in Weeks 8, 9, 10, and 11. Make sure that group members take this in turn, **there will be enough time for 2 playtests sessions each week.** For a single group member, **each playtest must be done in a separate week** to allow them to compare how the game has changed as a result of the previous playtest. Use the playtest template available in the Assessments section of Canvas and customize this to your own needs. **Take a lot of notes and stick to proper playtest procedures you learned in Assessment 1.** You should include the following and any other notes you feel are relevant: • The Plan: What questions do you plan to ask the playtesters, what features of the game are you testing, and/or what are you going to look out for in your	**4**

- observations of the players? What do you expect to learn from this?
- The Data: A record of the answers that playtesters gave to your questions, notes from your observations, photos taken during the playtest, etc.
- The Impact: What does this data tell you about the game in its current state? What is currently working well with the game and what is not? What do you recommend to the rest of your group to change in the game as a result of this playtest and how do you believe that this will improve the game?
- The Outcome: In the second playtest record, discuss how the game has changed as a result of the last playtest. Also compare the results of both playtests to see how the players' experiences have changed from one version of the game to another.

1 mark will be deducted for each relevant group member for every file name that does not match the submission detail above.

The grades will be posted on UTSOnline roughly 2 weeks after submission.

Groups with "problem" members should first try to resolve the issue themselves with open discussions with the member in question. If the issue cannot be resolved internally, report the matter to the respective tutors. The tutors will then decide on whether to remove the "problem" group members. In extreme cases, removed members will then continue the project individually. Again, do try to resolve internal problems within your groups as far as possible before deciding to approach your tutor. Group dynamics is part of what it takes to work in a game studio.