Design A Game 2022

Generate some ideas

Put your brainstorms or sketches here

One button game / one tap game
Fast paced pong where you tap on touch screen to create ripples to stop ball escaping screen in an ocean

What do i need

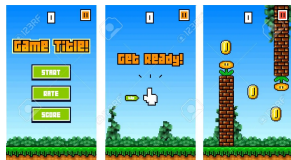Random ball movement (Rng)
Shockwave mechanic
Only 2 shockwaves
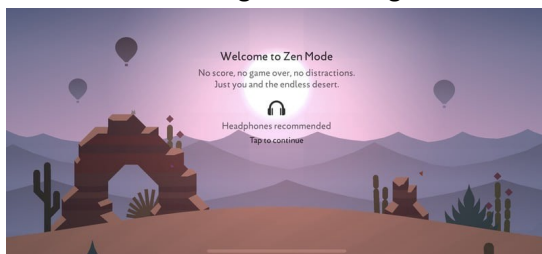
What do i want

Timer
Pixel art style

Menu
Sound and serene bgm and background

Ball skins
Maybe background skins

Bullet hell
Ocean
waves?
skins

Write a [synopsis](#) for each of your three ideas:

Synopsis 1	One player pong but instead of a paddle it uses shock waves or ripples.
Synopsis 2	Bullet hell set on ocean with creatures etc
Synopsis 3	Platform game where if you move for to long you die of stamina exhaustion

Narrow it down

Complete the following sections after completing the class activities. Make sure you understand what "resources", "scope", "target audience", "existing outcomes" and "evaluate" mean and how to give and receive good quality feedback.

Summary of Feedback

Game Idea	Summary of Feedback (remember because!!)
Idea #1	Cool idea. There should be a limit where you can only have 2-3 ripples on the screen -Oliver Great idea, make sure you make accurate shockwaves - Dad
Idea #2	Needs to be unique than the og bullet hell games because otherwise it will be boring. Coding many attack patterns may be difficult
Idea #3	Bit unoriginal but it would work, definitely could be expanded on and have a cool gimmick or 2

Pros and Cons

	Pros	Cons
Idea #1	Easy to expand on and add more content if I have time Assets are a possible way to make it easier Mobile games can be played anywhere, I like them	May be hard to do somewhat accurate physics Music is hard to make Tricky hitboxes
Idea #2	Easy to expand on and add more content if I have time	Music is hard Bullet physics can be complicated

	Assets are a possible way to make it easier Mobile or pc	
Idea #3	Could get quite complex if I have time See other pros etc	Could get complex and hard to make

Research and Evaluate

What idea are you going to pick and why? Include existing outcomes, scope, target audience, resources etc. (100 words approx and use because!)
I am going to pick my first Idea (one player pong spin off) because I would like to see a game like it, it is unique, there are very few arcade type games like it.. It is a simple concept with a very simple minimum viable product (pong ball physics, shockwave, losing) but it is full of potential. It will be a game with infinite playability because it does not need levels. It could expand to other gamemodes, powerups(alto's odyssey and fruit ninja uses these), cosmetics (stack) and other modifiers(jetpack joyride).
List your sources: Add links to websites or articles that helped you decide here: 1.   stack 2.   Alto's odyssey / adventure 3.   Endless runners etc 4.   Fruit ninja 5.   Jetpack joyride

Relevant Implications

In your own words, describe at least 3 relevant implications that are important to consider before designing any video game. Complete the class activities on how to answer and the HCI lesson before completing this.

Relevant Implication	What is it and why is it important to consider when making games? State, Explain, eXample, whY
Aesthetics	Aesthetics are what the game looks like. They are important because they can either ruin or improve the game's experience, for example if tetris did not fit flush when you placed blocks it would ruin the appeal. This is

	because it would not look nice and give satisfaction of clearing lines. Also it would be pleasing to the eye because making something that was cleanly done.
Functionality	Functionality is how something works. It is important to have a good functioning game that works. This is because if it doesn't work it will not be fit for purpose. Eg if crafting did not work in minecraft it would not serve its purpose and make the game much less entertaining therefore people would not play it.
Usability	Usability is how usable / easy to use, something is. For example if a game has laggy mobile controls but needs fast inputs people will not play it. Eg. laggy piano tiles would be bad to play. This is because to be worth playing people should be able to ask for good quality usability and controls.

Game Design Document

| |
|---|
| **Title**: shockwave |
| **Genre:** arcade |
| **Target Audience**: casual mobile gamers |

Synopsis
One paragraph. Arcade game similar to one player pong but instead of a paddle you tap / click to spawn shockwaves preventing the ball (that starts by moving in a random direction) from leaving the screen / playing area. Your score is based on how long the ball is inside the playing area. This will be calculated by an in game timer. You are prevented from having more than 3 shockwaves on the screen at once to add a layer of strategy and difficulty

Game Objectives
What the player has to do to win and how they are stopped from winning: The player can not win but only increase their high score. To do this you keep the ball inside the area of play / screen for mobile Keep the ball inside the area by creating shockwaves when you tap. To increase / decrease the speed of the ball tap closer or further away from the ball

Game Rules
All the game rules- win/lose/scoring When the ball exits the playing area you lose. Maximum amount of shockwaves is 2-3 Score is a timer ticks up every second

Game Structure

Levels/scenes/time etc. A Game Flow diagram.
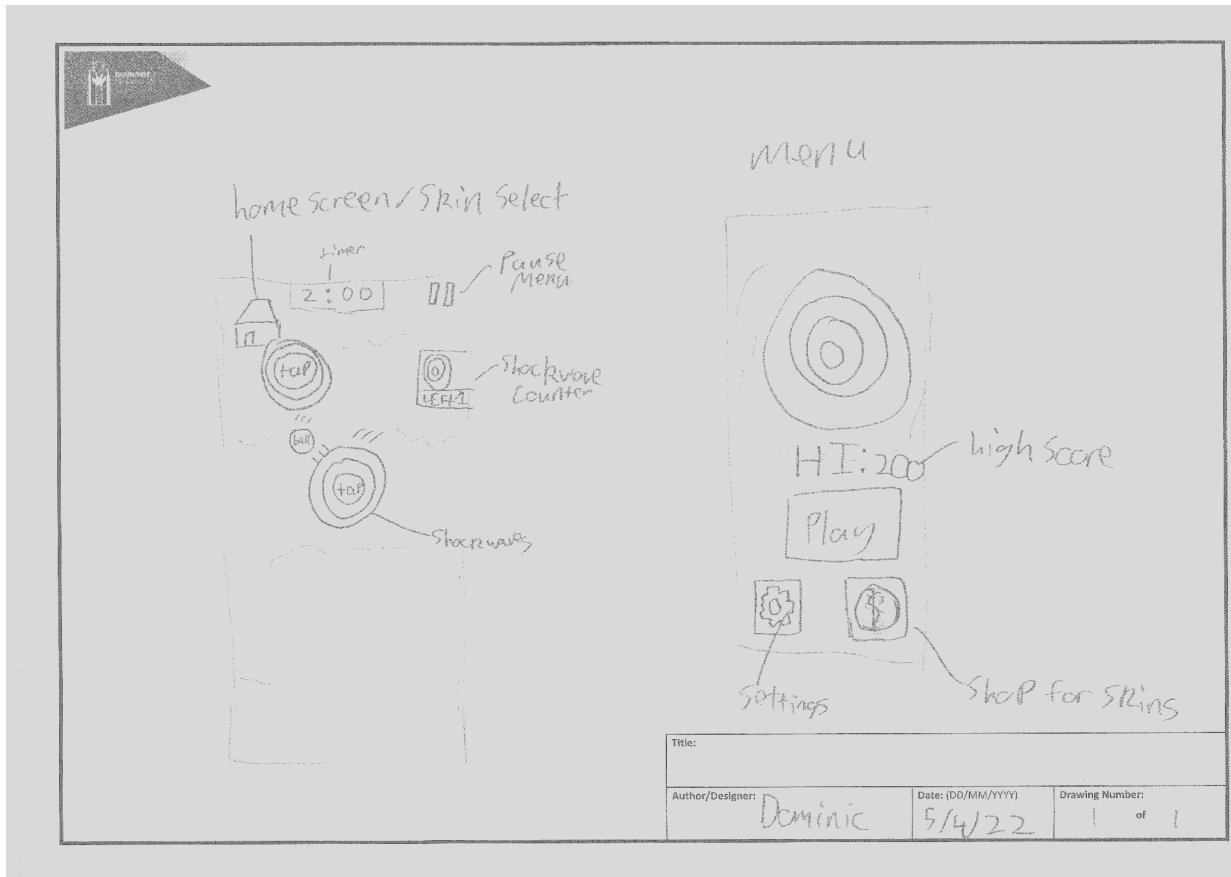
Game Controls

Instruction of how you intend to have the game controlled on the intended platform- keyboard/mouse and details. A diagram is required

The game will be primarily on mobile and controlled by touch. The menus and HUD will have buttons also by touch

Game Camera
How you intend the game to be viewed, FPS/3rd Person/2d and details/diagrams/drawings
The camera is going to be top down and show the entire playing field.

User Interface
List HUD elements and details about them- add sketches
The HUD will consist of a timer, pause button, power ups icon and shockwaves left counter
The pause menu will let you exit to menu or restart

Player
Information about the intended player: character, look, behaviour, movement etc. Drawings are required
The player will be a basic white pixelated ball.
It will move in a straight line until the shockwave interrupts it.
The ball will have skins unlockable at certain times/score milestones to add rewards. They could include, a basketball, tennis ball, bomb, beach ball etc.

Art
Setting/level design- include rough sketches of what you intend it to look like. Drawings are required. The setting will be a calm ocean that the user will tap / click to interrupt it and create ripples on the surface, there may also be themes that can be unlocked with milestones / achievements

Audio
Sounds/music etc. Give a brief description of what sound and music you need. List them all. I will need a menu and pause select sound, skin select sound, ball to shockwave collision sound, losing sound and new high score sound. I will need a calm ocean theme for the BGM

Requirements Requirements are what must the game contain to be considered successful, what is the theme,challenge and goals in broad terms. There should be at least 5 key requirements.	Specifications Specifications are a list of technical and measurable things that the game "will have" or "will be" in order to achieve the requirements. Note that there should be several specifications for every requirement.
Eg Must be a 2d platform game	The game will be a 2d platform game The game will be written using Godot The game will run on low spec windows PC's The game will run full HD, 1920x1080
Eg. Must contain a hamburger as the main character	The main character will be a 256x256px sprite of a walking hamburger containing animations for idle, jump and run
Must be a single player arcade game	The game will be an adaptation of one player pong The game will be made in godot The game will be both mobile and pc
The game must be endless	The game will have a stopwatch that correlates to score.
The art style must simple art	The ball will have different skins Beach ball, bomb, basketball, tennis ball, emoji

	etc The game will have themes such as retro, pixel art, pop art, cartoon, monochrome colours, black and white.
The game will have music and sound effects	The music will be calm to match the art style The sound effects will be satisfying to hear
The game must have a score	The score will be the time the ball is in the playing area in seconds There will be a combo bonus with the score There will be a menu high score
The game must have losing	The game will be hard, tom add a challenge
The game must have controls on mobile	The controls will be easy to use touch controls, that will be very responsive.

Resources
What do you HAVE to make this game, what people, what skills do they have, how much time, what software, hardware etc. This helps you to judge if a game is in scope (ie do-able with the given resources) Write a bullet point list of all your resources ● The school computers ● 12 weeks time to program ● Free assets eg sound assets / art ● Pixelart.com ● My knowledge ● My computer ● gimp/inkscape ● planners/trello ● Mr O'Sullivan

Evaluate your Design

Justify, with evidence why this design is going to be awesome. Does it fit the theme? How does it meet the relevant implications? How will it meet the needs of the target audience?

Don't forget to include research to back up your claims. Use the internet and add a bibliography of websites or articles that you used. The better you do this section, the better the mark you will get.

I will make a casual arcade game on mobile because:

Mobile games are increasingly profitable. And this is shown by this site where it found that mobile gaming was expected to claim 57% of the entire gaming market in 2021, data collected at the beginning of this year shows that the estimation was close with mobile games taking up 52% of the market

I will make a casual arcade game because it is immensely popular. This site found that 80% of mobile games downloaded on the play store are casual mobile games (meaning that you pick them up for 10 mins or less and then log off until the next day or in spare time.) and found that 12% of those casual games are arcade games.

It will meet the relevant implications by having engaging aesthetics and sound design, simple and easy to use controls and it will have smooth and satisfying gameplay.

I will also make it because one of the most popular mobile arcade games is Alto's Odyssey and it has a zen mode for endless replayability similar to my endless pong.

Appendix 1: What is a Synopsis?

You should have an idea of a simple "game mechanic" that you like by now. (Eg. Fun fast paced platformer games). However, there is more than one way to make any game!
Take the fun fast paced platformer idea- this could be Mario world with a plumber who avoids turtles and jumps down tubes to alternate realities or Sonic who is a high speed hedgehog who collect rings and defeats bosses at the end of the level.
Both those sentences were examples of a really short and simple game **synopsis** or summary. Notice that they are starting to get more specific? A good synopsis includes:
- Theme - what the genre and game style
- Character - who do we play this game as?
- Objective - what is the main goal or goals of the game?
- Challenge - what stops us achieving the goal(s) or makes it difficult to achieve?
- Setting - where is it set and what might it look like?

Marking Schedule

Achieved Develop a proposal	Achieved Develop a design	It could look like……
	Provide evidence of research and generated a range of design ideas	Research into what you could make. Using the theme and coming up with a few potential games that fit the theme somehow Research into how to do 'stuff' video links, sources, existing outcomes.
	Describe the relevant social implications and end user considerations	Include consideration of relevant implications before development
The proposal includes an outcome statement which contains the problem/issue, scope, purpose and context. The proposal identifies the end user The proposal includes a list of requirements (must do…must be….must have) The proposal includes a list of Specification (technical, measurable) The proposal identifies a list of resources required	Define the purpose of the outcome and the end users	A Game Design Document (this contains the Proposal too! Requirements, specs,resources, target audience, issue(s), scope,purpose, context)
	Describe the appropriateness of the chosen design	Evaluation of your chosen proposal and design
Merit **Develop an informed proposal**	**Merit** **Develop an informed design**	
The proposal has been informed by feedback and research	Use feedback to improve the design	Several pieces of high quality feedback informing proposal and design
The proposal shows clear links between the requirements, specification, end users and required resources.	Explain how the design meets the relevant social implications and end user considerations	High Quality evaluation (from A criteria)
Excellence **Develop an effective proposal**	**Excellence** **Develop an effective design**	
The proposal includes justification, with evidence, of how it will meet the overall project requirements.	Includes justification, with evidence, of how the chosen design is suitable for the purpose and the end users.	Evaluation contains justifications with evidence of how it fits the project goals/theme/scope etc.
Mark for Proposal Excellence once Resources is fixed	Mark for Design Excellence	Comments