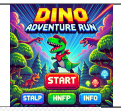
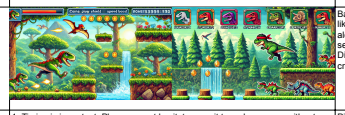
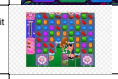
Game name	Initial proposal [1]	Brief description	Image	Twist	Number of Core Mechanics [2]	Assets and Graphics [3]	Physics Requirements [4]	AI Requeriments [5]	Game States [6]	Attractiveness [7]	Complexity [8]	Development Time [9]	Feasibility using P5.js [10]	User friendly [11]	Final score [12]
Tetris + 2048	Aya	Blocks with numbers on them, which get combined on the board.		1. Blocks of numbers instead of single numbers like in 2048 and numbers combine together automatically when placed, so there is no swiping like the usual 2048. 2. Presence of numbers and needing to pay attention to which numbers will combine together.	How numbers will combine when added to board	blocks	None	None	Playing, game over, pause, save	5 4 4 4 4 =21	5 4 4 4 4 =21	5 4 4 4 4 =21	5 5 5 5 4 =24	5 5 4 3 4 =21	108
Mario - Jurassic Park	Mahesh	Like Mario game with player having option to transform between suitable Dinosaur to go forward. e.g. aquatic Dino to swim through water pond, Dragon Dino to burn wood logs in front of it, Velocicraptor to jump high, etc.			Basic things of mario like jump, run, walk along with option to select any of the Dino's suitable to cross the path.	Run, jump, walk for all Dinosaurs	for Jump	None	Start, pause, resume	5 5 5 5 5 =25	4 4 5 2 4 =19	4 4 5 3 5 =21	4 5 5 4 4 =22	4 3 5 5 4 = 17	104
Melting Candy	Aya	"Candy Crush"-style game which has added time element to make it more engaging and challenging.		1. Timing is important. Player cannot hesitate or wait to make a move without consequences. 2. Pieces of candy can melt together, which will make those pieces immovable and limit the possible moves a player can make.	Pieces movement, melting of candy (which pieces and when)	Different types of candy, what candy looks like when melted together	None	none	Playing, game over, pause, save	3 4 4 4 2 =17	4 4 4 4 3 =19	4 4 4 4 4 =20	5 5 4 4 4 =22	4 4 5 4 5 =22	100
Train of Thought	Santiago	Your task is to guide an increasing number of trains to their stations. You must divide your attention to guide them all simultaneously.			Change the direction of the connections between roads	Trains and stations of diferrent colours, roads	None	None	Increase the number and velocity of the trains flowing while time passes	4 5 3 4 4 =20	3 4 4 4 3 =18	4 4 3 4 4 =19	4 5 5 5 5 =24	4 3 3 3 4 =17	98
Maze Game with Dynamic Walls	Mahesh	Player navigates a maze to reach the exit.		A) The walls of the maze shift and change dynamically based on a timer or the player's actions. B) Include enemies that patrol the maze and chase the player if spotted.	maze array change mechanisam	Character, enemy, enemy shoot	None. Top view navigation with no sense of gravity.	NPC enemies' path can be based on AI.	Pause, save, start.	5 4 4 4 3 =20	3 2 4 4 3 =15 [13]	4 3 4 5 3 =19	3 5 4 3 4 =19 [14]	5 4 5 4 5 =23	96
Pirate Passage	Santiago	Exercise your planning skills by finding the route to buried treasure.			Drawing the route with the mouse and after finished simulating the trains movement	Boats, initial pointer and final pointer (treasure)	None	Could be use to find the optimal route	Increase the complexity of the task	4 5 3 3 4 =19	3 4 3 3 3 =17	4 4 4 4 4 =20	4 5 5 4 4 =22	3 5 3 3 4 =18	96
Apple Shooter	Aya	Player attempts to escape as NPC tries to shoot at the apple on the player's head.		1. Shooter is programmed to shoot unpredictably, making it harder for the player to escape. 2. Reversal of the classic game, which is to try to shoot at the apple.	Randomized shooting of arrow, movement of shooter and escaper	Shooter, player, bow flying in the air	Movement of the arrow	Shooter	Playing, game over, pause, save	3 4 4 2 1 =14	2 4 4 4 3 =17	5 4 4 4 4 =21	5 4 4 4 4 =21	5 4 4 4 4 =21	94
streetfight-like gam	Haru	mutiplayer, choose characters from tutors background is MVB. reperence		The name of the move such as "Debug Blast"	Basic combat system (attacks, combos, blocking). Choose characters.	Pixel art for characters, backgrounds, and items. Animation for attacks, combos, and special moves. Stage designs representing parts of the university (e.g., library, cafeteria).	Collision detection for attacks and movement. Smooth movement with gravity effects for jumps. Knockback mechanics for attacks.	None	Start menu. Character selection screen. Gameplay mode (fighting stages). Stage clear and reward screen. Game over screen.	5 5 3 5 4 =22	3 3 4 2 4 =16	4 3 5 1 4 =17	5 4 5 1 4 =19	5 4 5 2 4 =20	94
Tank battle	Shrirang	A single tank has to defeat multiple enemy tanks and foot soldiers		1. It will be a 2D game with a complex maze. The maze will be bigger, but not infinite, than the actual screen available and as the player tank moves toward walls the camera moves unveiling the grid. 2. The user will start off with basic ww1 era tanks and as more features and hardware is unlocked by the user, advanced tanks and sophisticated weapons can be used. 3. The game will have enemy tanks, trenches, soldiers with guns and terrain features. 4. The player will have to dodge rockets fired by enemy tanks and bullets fired by enemy soldiers. 5. Each time the player tank is hit total life goes down by a certain number according to the effectiveness of weapons. 6. User gets unlimited shots and has to defeat all the enemies. 7. The layout of the field can have muddy areas where players can get stuck and land mines which must be avoided.	1. Tank motion 2.Camera motion closer to edges 3. Soldier and enemy tank movements. 4. Projectile Impact. 5. Life Status bar.	Images of tanks, Images for soldiers to simulate walking. Terrain features, trenches trees, fencing	None	AI for tanks and soldier movements	Game running, game over, paused, saved.	5 4 4 4 4 =21	3 4 3 3 4 =17	2 4 3 2 4 =15	4 4 4 4 4 =20	4 4 3 3 5 =19	92
Scary birds	Shrirang	Scary birds need to be shot by a projectile chosen by user		It is modified version of angry birds. 1. We can have a catapult shooting projectiles at multiple flying predator birds. We can have a setting to have more or less birds depending on difficulty level. On easier levels the birds will be moving at constant speeds slowly in a straight path. 2. With higher difficulty and levels, there will be birds changing direction and moving in non-linear paths. We can give the user a specific number of shots to begin with. 3. The projectiles can be of different types and we can animate various effects on	Bird motion mechanism Projectile Motion Projectile Impact animation Obstacle destruction	1.Images for all the different bird types and multiple instances to animate flying motion. 2. Animation of projectile types and their impact on birds and obstacles.	Projectile motion and impact on birds and obstacles	AI can be employed by birds at higher difficulty level to evade projectiles.	Game running, game over, paused, saved.	5 3 4 3 4 =18	2 3 4 2 4 =15	3 4 4 2 4 =17	3 4 5 3 4 =19	5 4 5 3 5 =22	91
Shape-shifting runner	Mahesh	The player controls a character running forward while avoiding obstacles and collecting items.		A) Shape-shifting option where the player has to change the character's shape to fit through gaps in obstacles (e.g., 1] switching between a square, triangle, and circle for educational game 2] polar bear to cross ice, fish to cross water body, monkey to cross trees, etc). B) Add time dilation zones, where the game slows down or speeds up depending on the player's actions.	Current shape, obstruction shape match checking	Graphics for all the shapes/characters running needs to be made.	None/minimal "Jump" can be created without physics; I guess with just a simple curve. "Run" is just background moving left with characters legs moving on the same spot.	None	Pause, save, start.	3 3 3 4 3 =16	3 4 3 4 2 =16 [15]	4 4 4 4 3 =19	4 5 4 4(I have no idea) 3 =20 [16]	4 4 4 3 2 =17	88
RPG Game Design	Haru	A 2D pixel art RPG where players take on the role of a computer science conversion course student. Starting outside the iconic MVB building, the protagonist interacts with tutors, TAs, and classmates to receive quests, some of which involve dialogue, battles, and resource collection.		The game cleverly integrates computer science course challenges (e.g., debugging code, solving algorithms) into quests. For instance, a tutor might require a specific program fix before offering hints for the next objective.	Dialogue-based interactions. Quest and task management. Combat with dodging and attacking. Resource collection (e.g., gathering "knowledge points").	Pixel art style: Character sprites, MVB environment, and enemy designs. Icons for items (e.g., books, laptops). Animations for combat, movement, and interactions.	Basic collision detection for movement and attacks. Smooth player and enemy motion mechanics.	NPC pathfinding and behavior (e.g., wandering or engaging with the player). Enemy attack patterns during combat.	Pause, save, start.	5 5 5 2 3 =20	2 2 4 1 2 =11	3 4 5 2 3 =17	4 5 5 3 5 =22	4 2 4 2 3 =15	85
Ebb and Flow	Santiago	In this game, you shift your focus between two details: where the leaves point and how they move.			Only use keyboards to give the correct direction of the leaves and then new leaves appear	Leaves of different colors (2-4)	None	None	It only increase de velocity of the leaves flowing through the screen while time passes	3 3 1 2 3 =12	2 1 1 2 1 =7	2 2 2 2 2 =10	5 5 5 5 5 25	5 5 5 4 4 =23	77
	Reference:	**Santiago & ChatGPT conversation**													

[1] Who is proposing this game?

[2] Count the primary player actions (e.g., jumping, shooting). More mechanics mean higher complexity.

[3] Determine if assets require unique art (e.g., sprite sheets, animations) or can use simple shapes.

[4] Check if the game relies on custom physics (e.g., collisions, gravity). P5.js doesn't have a built-in physics engine, so these may increase complexity.

[5] To detect if a game has an AI dependency, you need to evaluate its mechanics and gameplay elements that involve non-player characters (NPCs), dynamic decision-making, or adaptive behaviors. AI in games is often required for any feature where entities (characters, enemies, or other in-game elements) need to act autonomously or respond to the player's actions in a meaningful way.

[6] Analyze state transitions (e.g., menus, pause, game over). More states increase development time.

[7] How engaging or appealing the game idea is to players.
1 = Not appealing at all, 5 = Extremely appealing.

[8] How challenging the game mechanics are to design and implement.
1 = Very simple, 5 = Very complex.

ChatGPT suggestion
1. Aim for a game with minimal features but engaging mechanics. Examples: Flappy Bird, Snake, Pong.
2. Avoid features requiring advanced physics, complex AI, or multiplayer networking.

[9] How long it might take to fully develop the game.
1 = Very quick to develop, 5 = Very time-consuming.

ChatGPT suggestion
1. Select games with short development loops (e.g., simple mechanics, no complex storylines).
2. Choose ideas that can be prototyped in a few weeks and polished afterward.

[10] How suitable the idea is for implementation with P5.js.
1 = Difficult to achieve, 5 = Easily achievable.

Can the core mechanics and features of the game be implemented using P5.js within the available timeframe, considering its library features, performance, and integration capabilities? Yes or No

[11] How easy and intuitive the game is for players to learn and play.
1 = Not user-friendly, 5 = Extremely user-friendly.

[12] Some formula to weighting the selection criteria.

[13] "Level 1) No enemies. Just timer.
Level 2) Enemies with AI path finding to catch player"

[14] "Need to use a 2D array to represent the maze grid and update it periodically.

Not sure how it will work in real time."

[15] "Can further add levels:

Level 1) just shape matching.
Level 2) extra challenge of color along with shape.
Level 3) dynamic obstacles that change colors and shapes."

[16] Pretty much feasibile