Game Design Document

Woodsy Wayfinder: Parcel Puzzles
Marshmallow Champs

Team Members

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Important References

Engine	**Unity**
GitHub	https://github.com/Shivangik01/Game_Prototype
Playable Alpha Build	https://shivangik01.github.io/Alpha/index.html
Playable Beta Build	https://shivangik01.github.io/Beta/index.html
Beta Build Video	https://youtu.be/https://shivangik01.github.io/Beta/index.htmlzOamllyDTII
Playable Gold Build	https://shivangik01.github.io/Gold/index.html
Gold Build Video	https://youtu.be/D2je8UFw2Zc

Game Introduction

Logline

-Meticulously pack and deliver packages while plotting strategic paths to ensure every destination receives its delivery.

Goal:

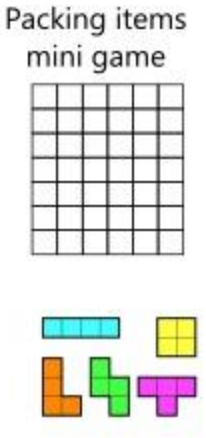
Deliver all boxes to their destinations within the map by the end of the level. Manage the destruction of paths and avoid robbers and obstacles to ensure successful deliveries.

General Description

"Woodsy Wayfinder: Parcel Puzzles" immerses players in a strategic delivery challenge. The village, intertwined with multiple routes leading to various abodes, relies on the player to efficiently deliver packages. But it's not just about getting from point A to B. Players must meticulously arrange Tetris-like packages, prioritizing deliveries based on the delivery location on the map. The path selection becomes crucial as certain tiles within the routes are destructible, vanishing upon contact and having robbers placed all over the map, forcing players to strategize their delivery routes in subsequent runs.

Every decision, from package selection and stacking to route plotting, influences the outcome. With the ultimate goal of successfully delivering all packages by the end of the level, players are tested on their planning, adaptability, and puzzle-solving prowess, ensuring each delivery run is a unique experience

Detailed Design



Game Element

Packages:
Tetris-like shapes to be packed. Directly linked with specific destinations, players know each package's intended destination. The order of packing influences the order of delivery. The order of packages is First in First out.
Grid:
To place the packages you want to deliver.
Minimap:
To show the delivery location of a given package.
Train:
To deliver the packages packed.
Tracks:
Plot the path from start to end while providing the packages using tracks.
Delivery Destination:
Unique places where packages are delivered.
Tile Map:
Where the paths are plotted, obstacles are present, and delivery destinations are current.
Obstacle Blocks:
Scattered on a tile map, the player has to find a way around the obstacles.
Robber:
Robbers who would steal the package on the way.

Game Mechanics (How to Play)

Packing Packages Mechanic:

- Players choose which packages to pack for each delivery run.
- The order of packing determines the order of delivery. For example, if a package is picked first, it will be delivered first.

Path Plotting Mechanic:

- Players must decide their delivery route for each run.
- Consideration must be given to destructive tiles, which become unusable after stepping on, making path choice crucial for success.

Path Following Mechanic:

- Simulating the train correctly on the path plotted.

Obstacles Mechanic:

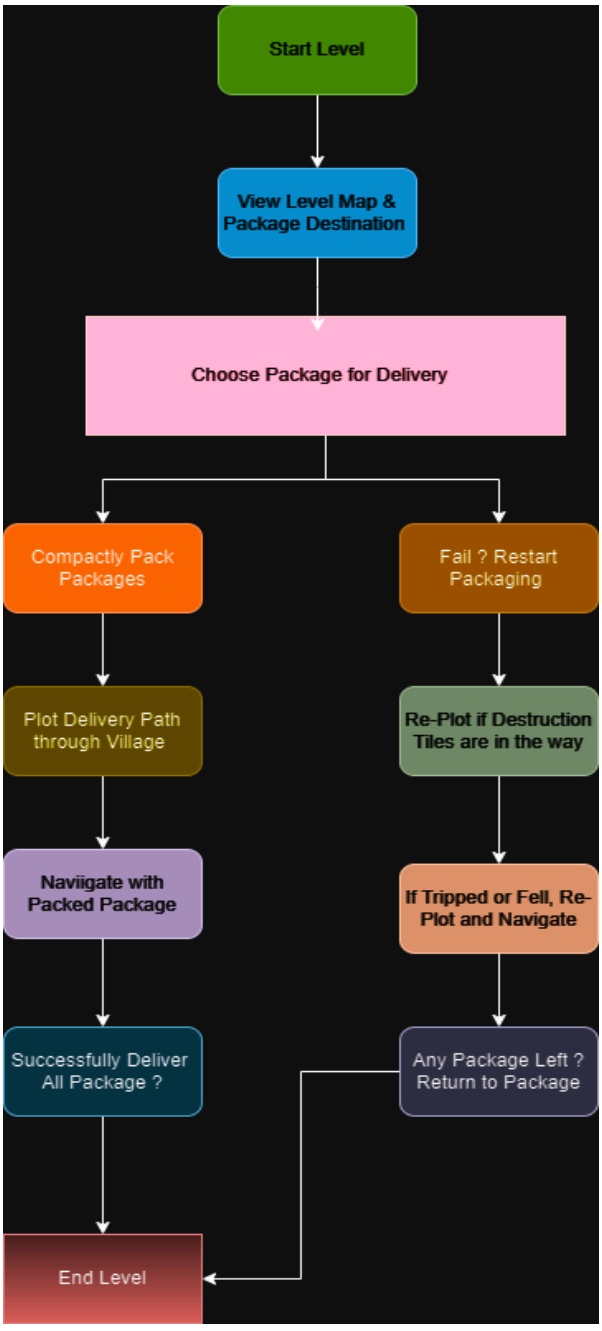
- Have to plot around the obstacles placed on the path.
- Avoid the Robbers on the path who want to steal the packages from the train.

Environment Destruction Mechanic:

The environment itself becomes a dynamic part of the gameplay. Certain tiles within the routes aren't just passive obstacles - they crumble and disintegrate. This temporary nature of the paths mandates a blend of immediate tact and future strategy.

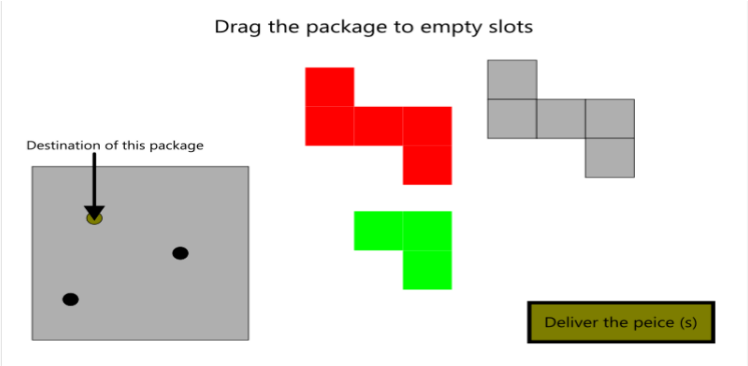
- Dynamic Terrain: Not all tiles are stable. The paths are peppered with fragile sections that break after a single use. This challenges the player to be mindful of their current journey and future routes.
- Strategic Re-routing: As paths degrade and sections become inaccessible, players must often re-plan their delivery routes on subsequent runs. This can mean longer journeys or more challenging navigation, but it's essential for success in the game's later stages.

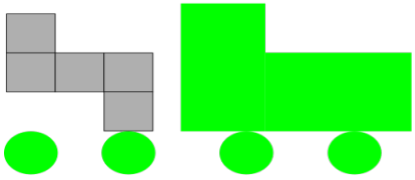
Gameplay Loop

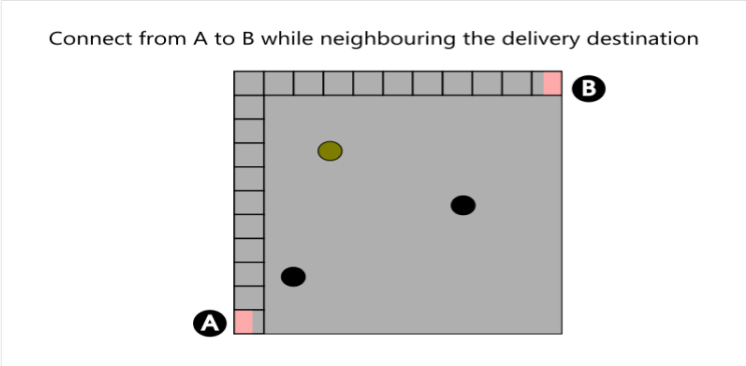


Weekly Prototype Descriptions

Week Six-Eight

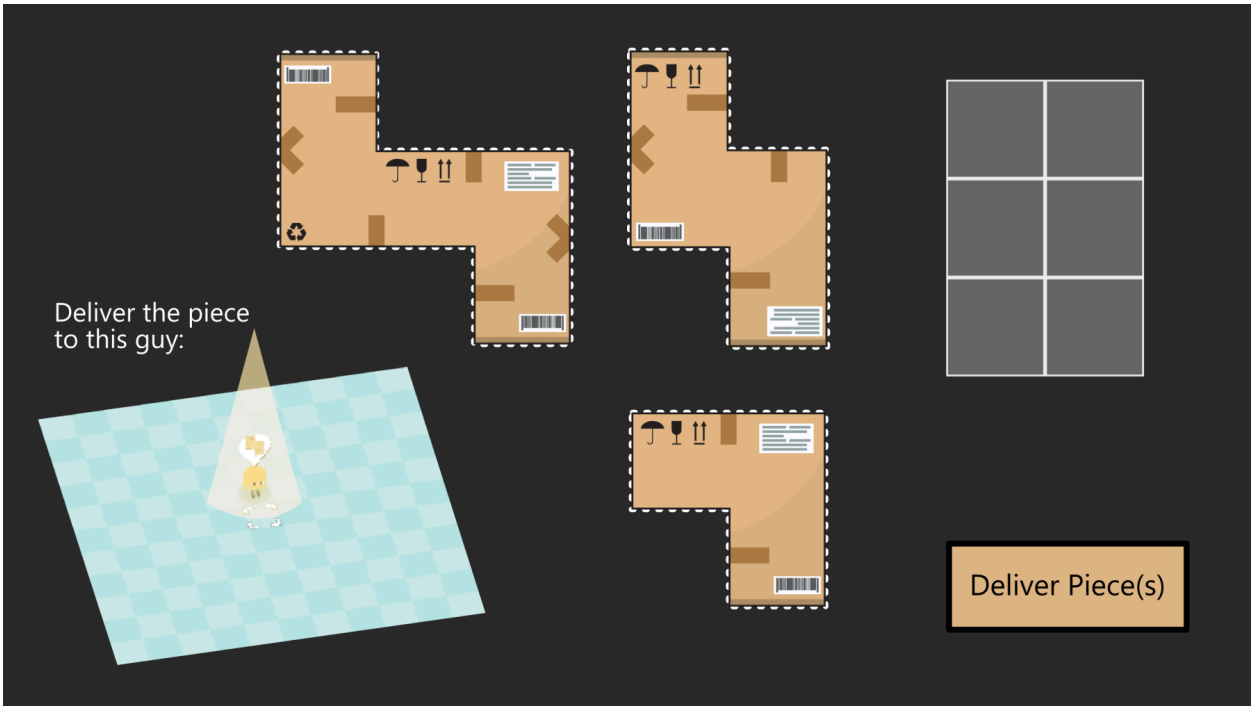






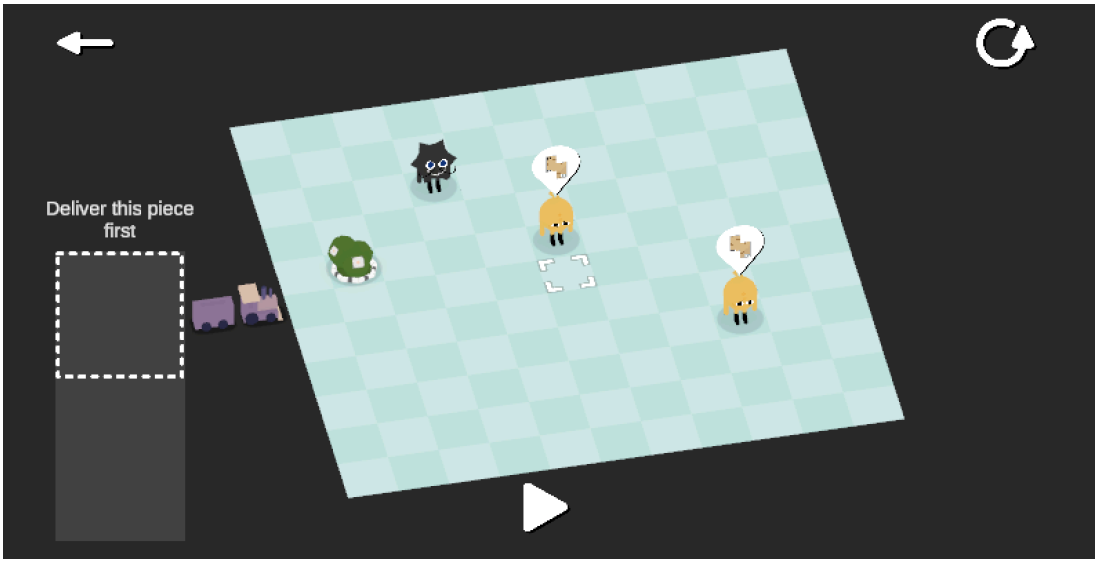
- Figured out how to remove ambiguity by adding pointers to how the scenes would look after comparing it with other developed games.
- Start and end destination for the train.

Week Nine:



- Adding a minimap so that the user understands that the pieces he/she is dragging has a role in the next scene.
- Working on the transition from one scene to another.
- Dropped the balance mechanic idea.

Week Ten - Twelve:



- Thinking of level design and innovative mechanics.
- New Robber Mechanic and Obstacles added.
- New Environment Destruction Mechanic added.
- UI updated and structured the game.

Week Twevle-Thirteen:

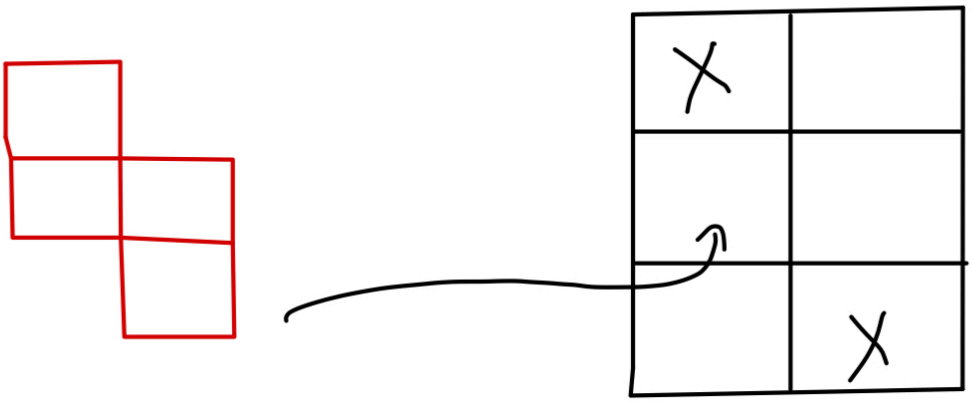
- Playtesting
- Analyzing the feedback
- Making changes according to the feedback, increasing speed, and changes to minimap.

Week Fourteen-Fifteen:

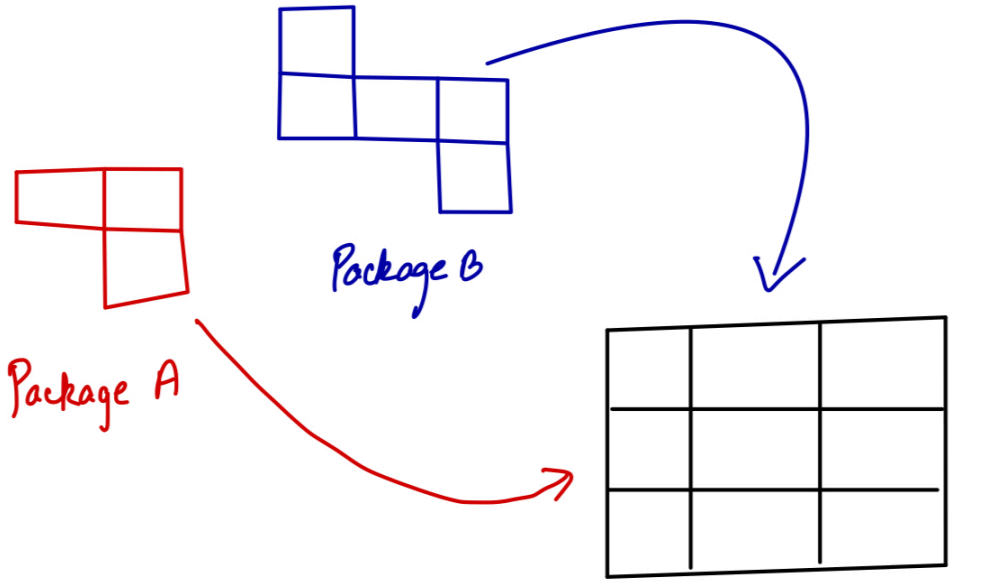
- Implementing the changes from feedback.
- Highlighting already used path.
- Adding high scores for the users to see.
- Adding Fast-Forward button.
- Adding sound to the game.
- Adding more visuals to the robber mechanic.
- Uniforming the UI.
- Changing the ordering of packages getting queued

Mechanics Description

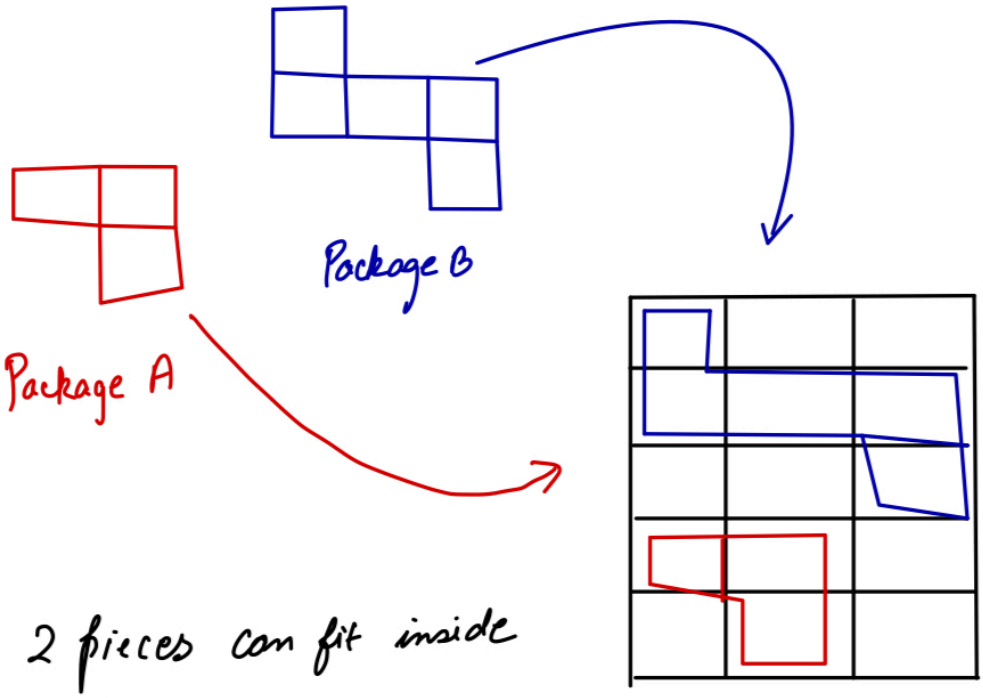
Packaging Mechanic - Shivangi



Only one way tetris as a package can be plugged

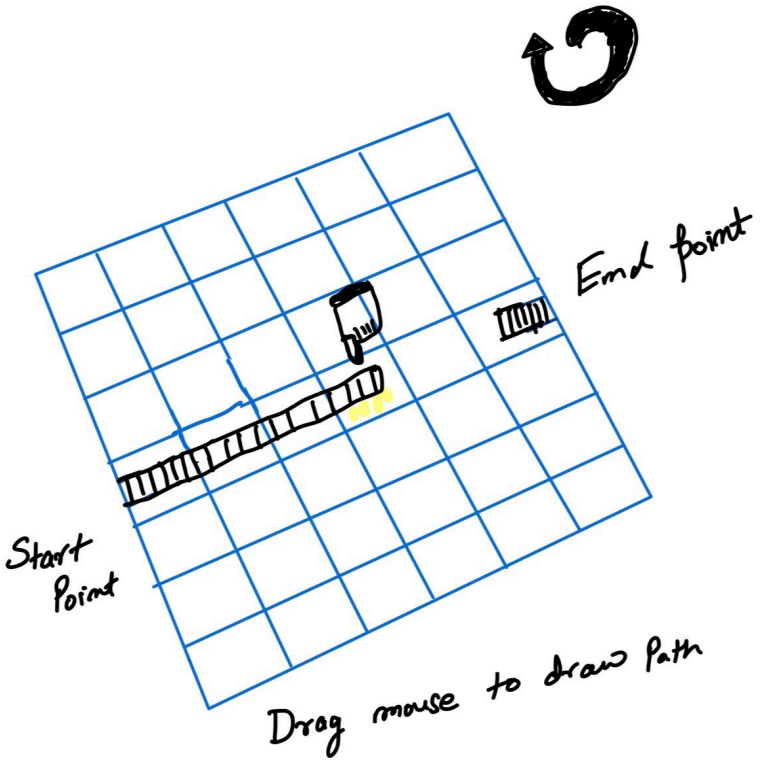


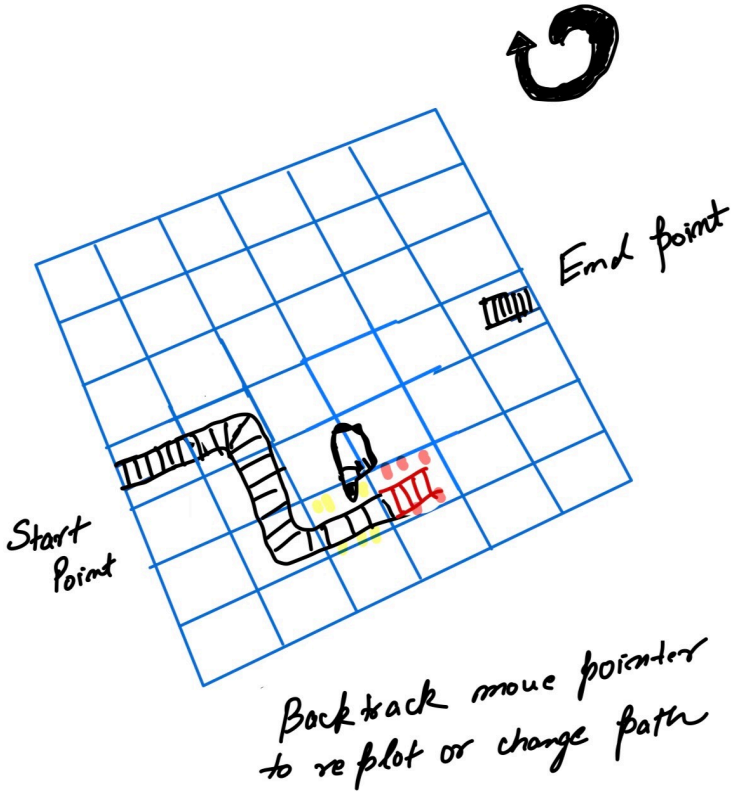
Only one piece can fit in at a time

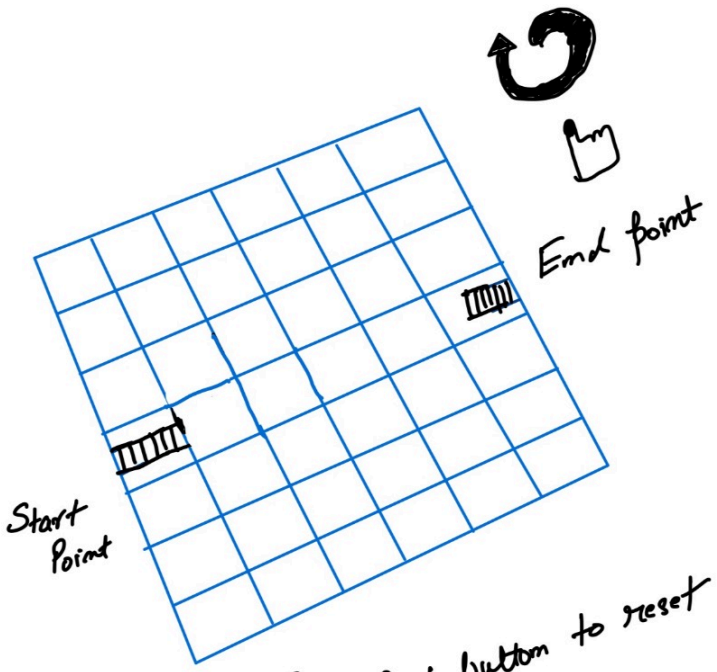


2 pieces can fit inside together

Plotting Mechanic - Vedang

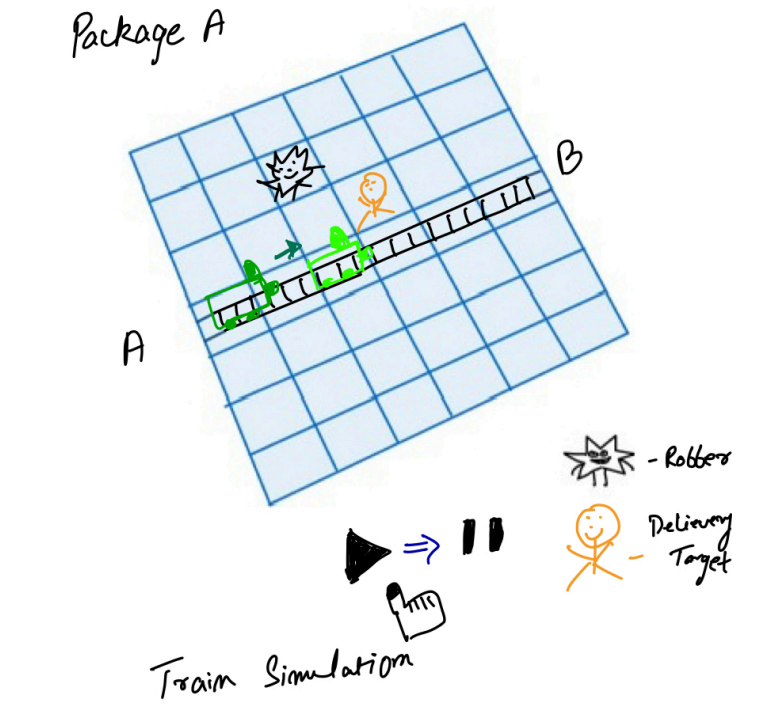


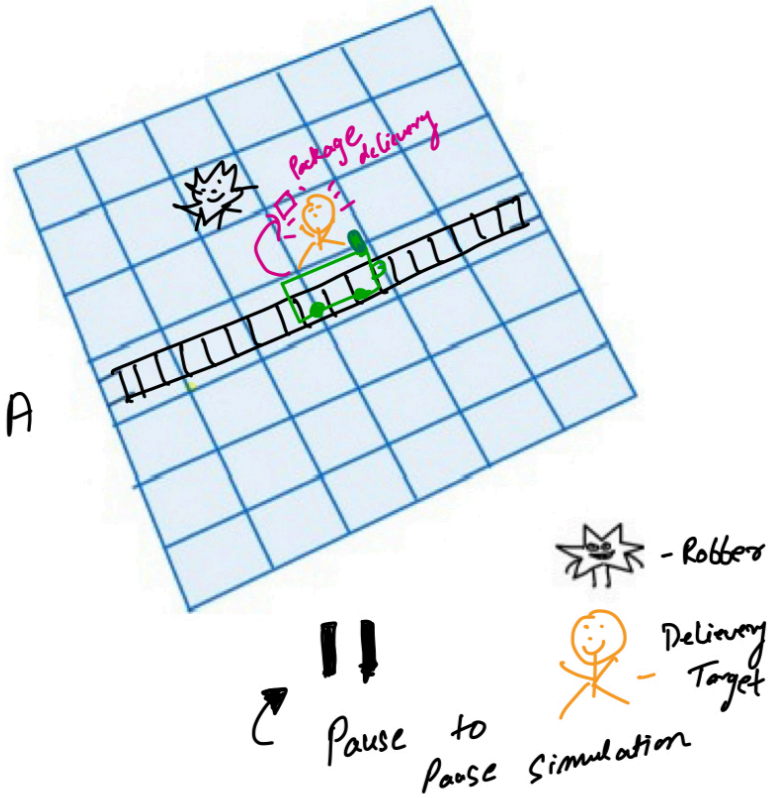




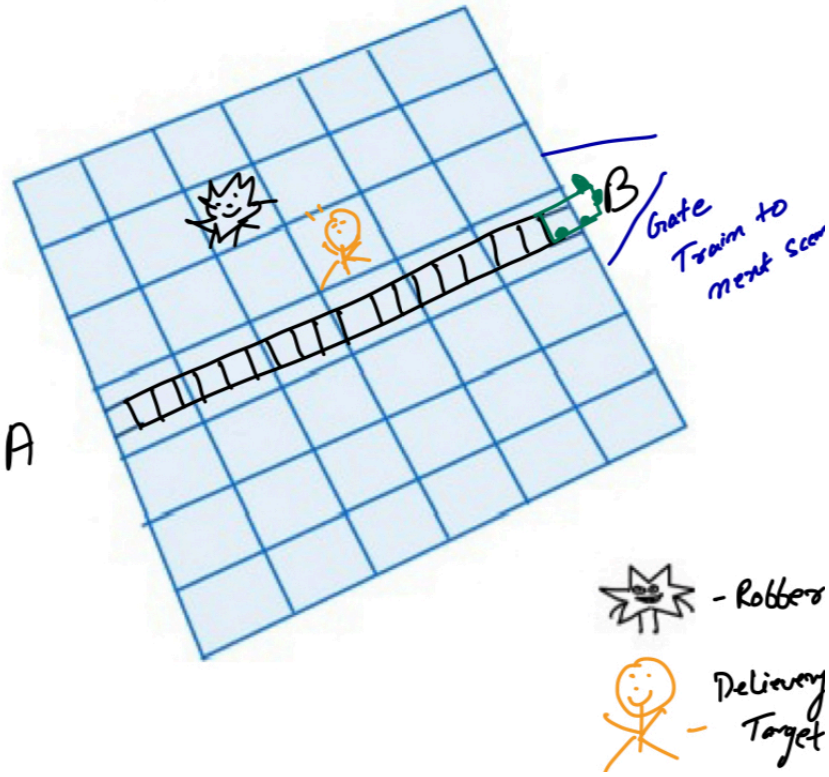
Press Reset button to reset path

Simulation Mechanic - Siddhant P



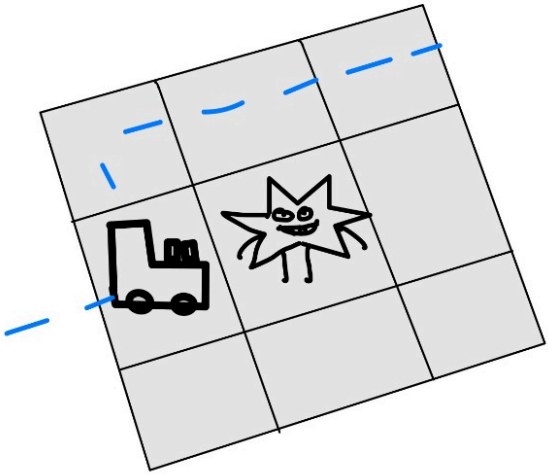


Train moving to next scene for package delievery.



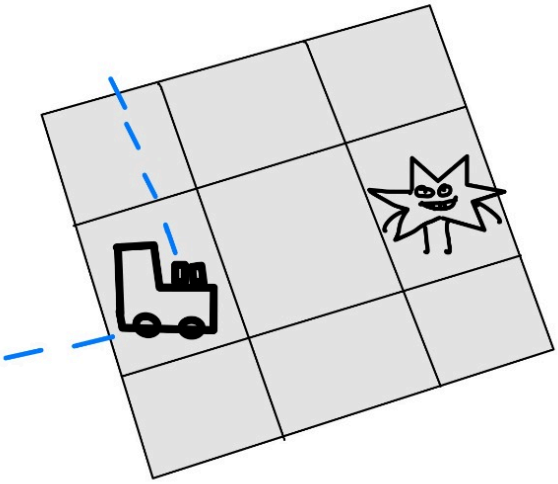
Robber Mechanic - Preeti

1. Package stolen by Robber.

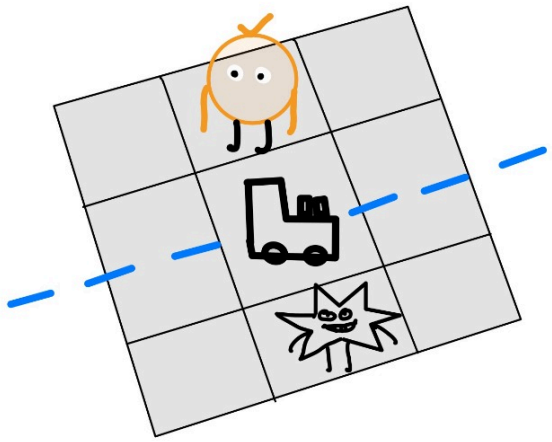


2. Package not stolen

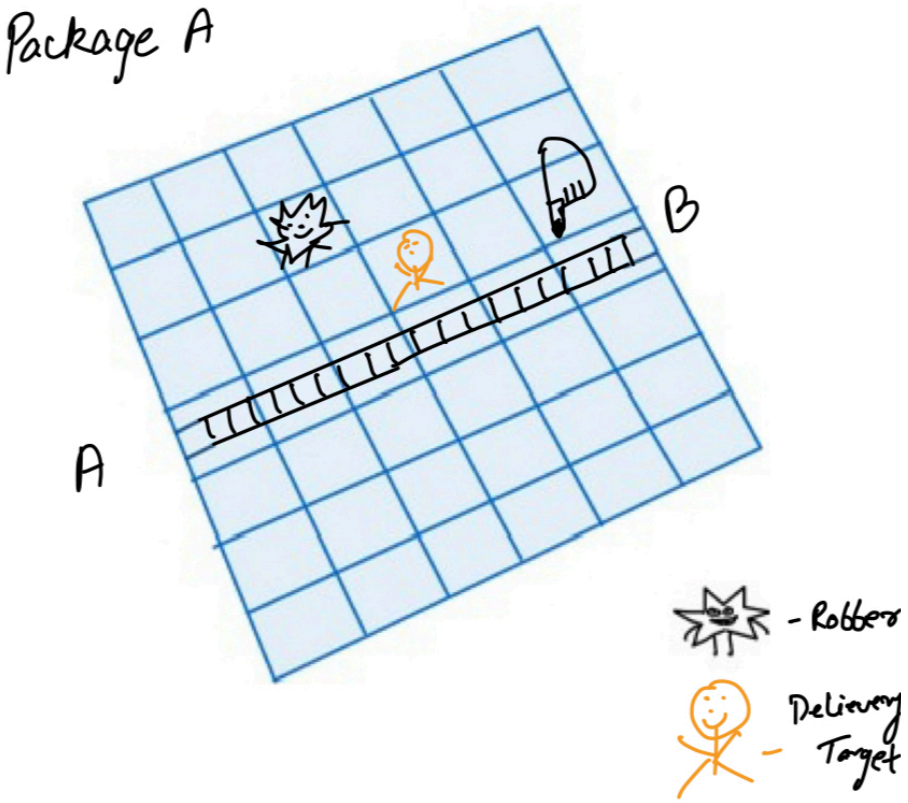
As the train is not in any adjacent tiles of the robber.

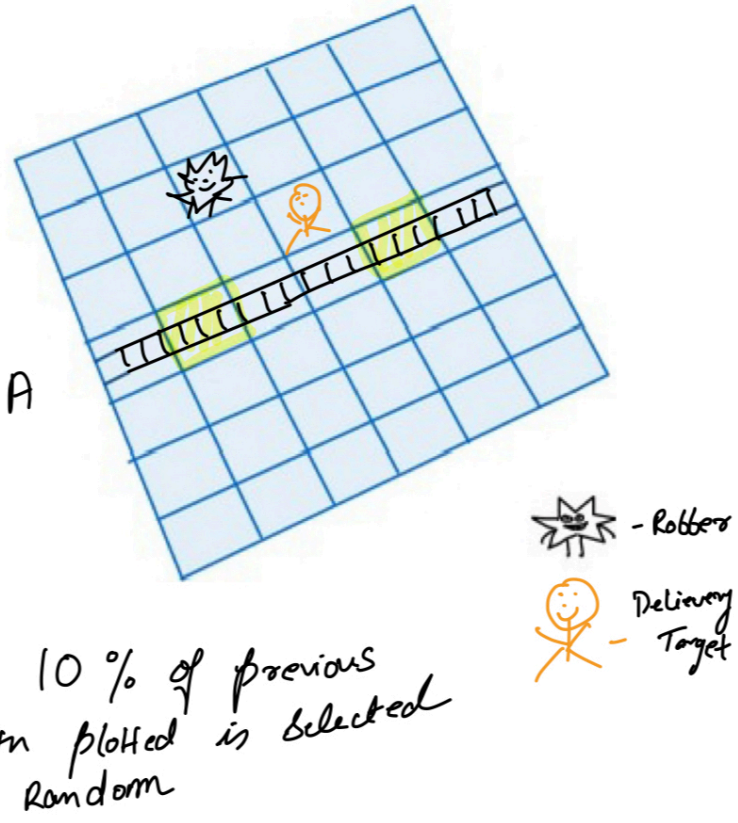


3. Package will be stolen by Robber and not delivered to the player.
Player is sad. Robber is happy.

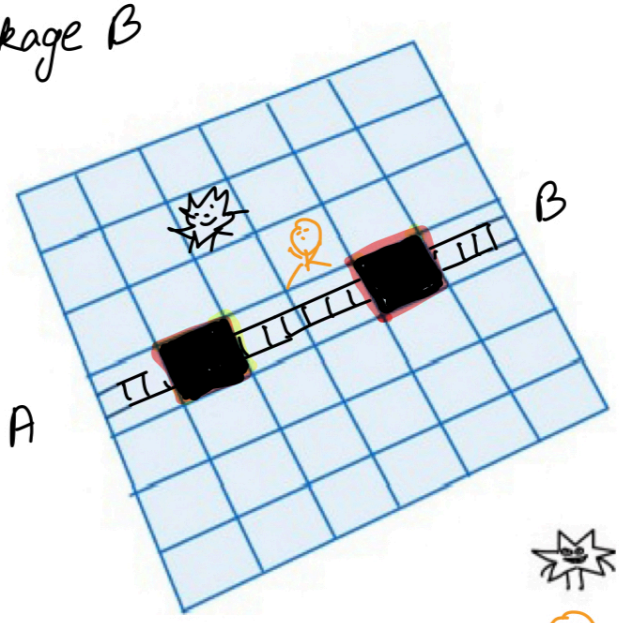


Environment Destruction Mechanic - Siddhant S





Package B



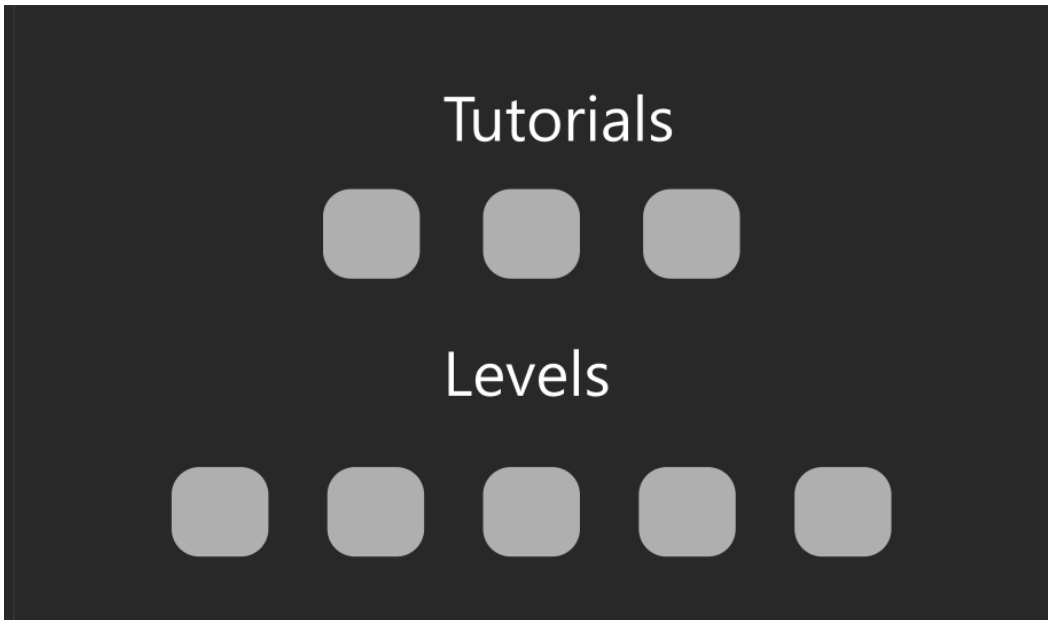
- Robber


Delivery Target

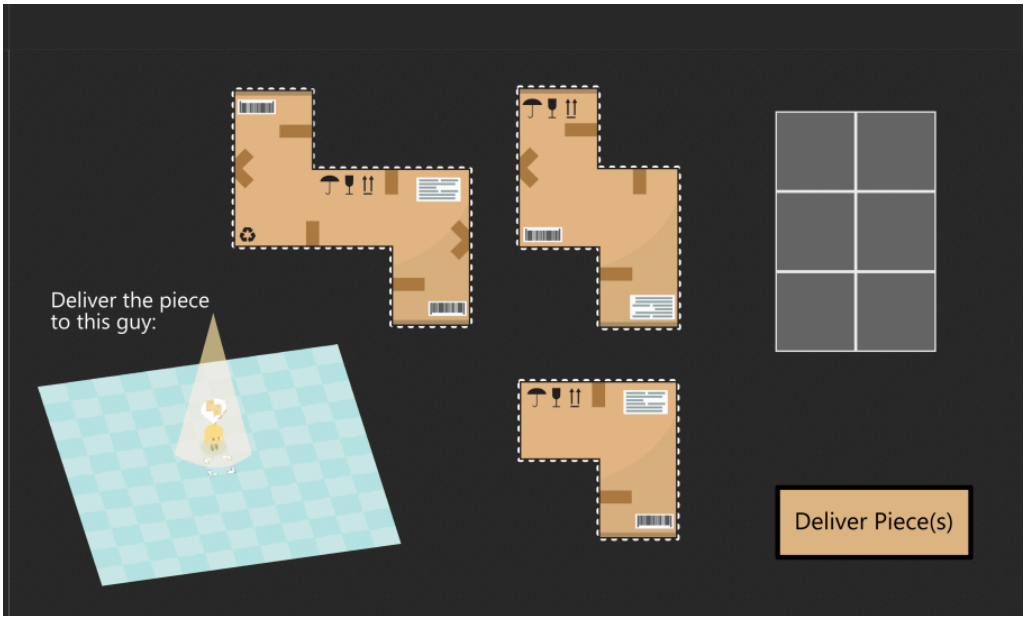
10% of previous path destroyed

UI Mockups

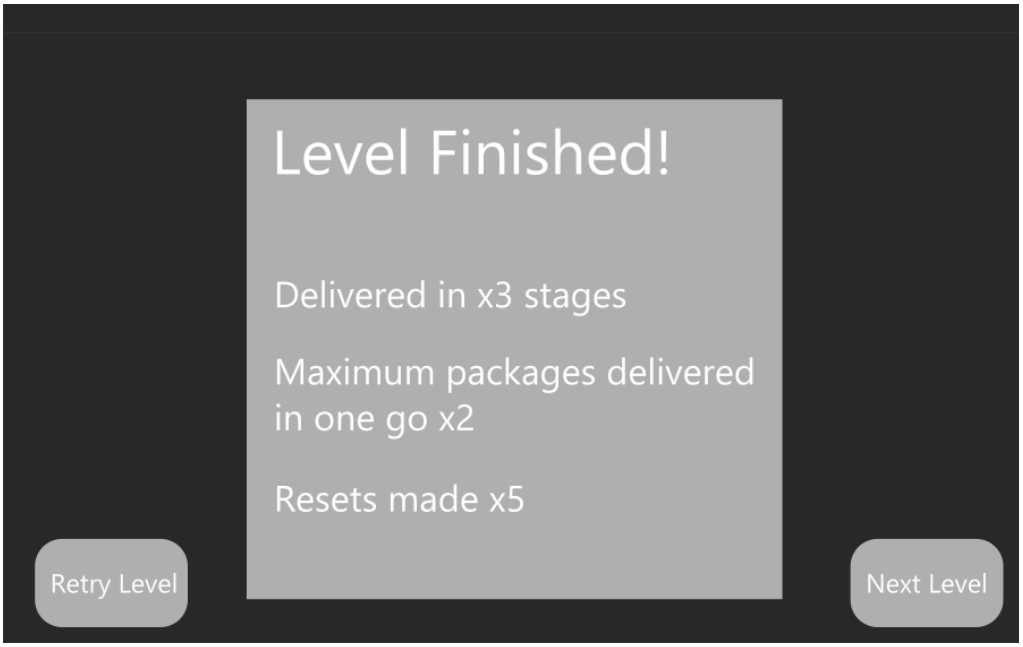
The above is the image of the homepage. This portal is the starting point of the game application.



The above is the image of the level selection is above. Differentiation between tutorial levels and primary game levels is present.

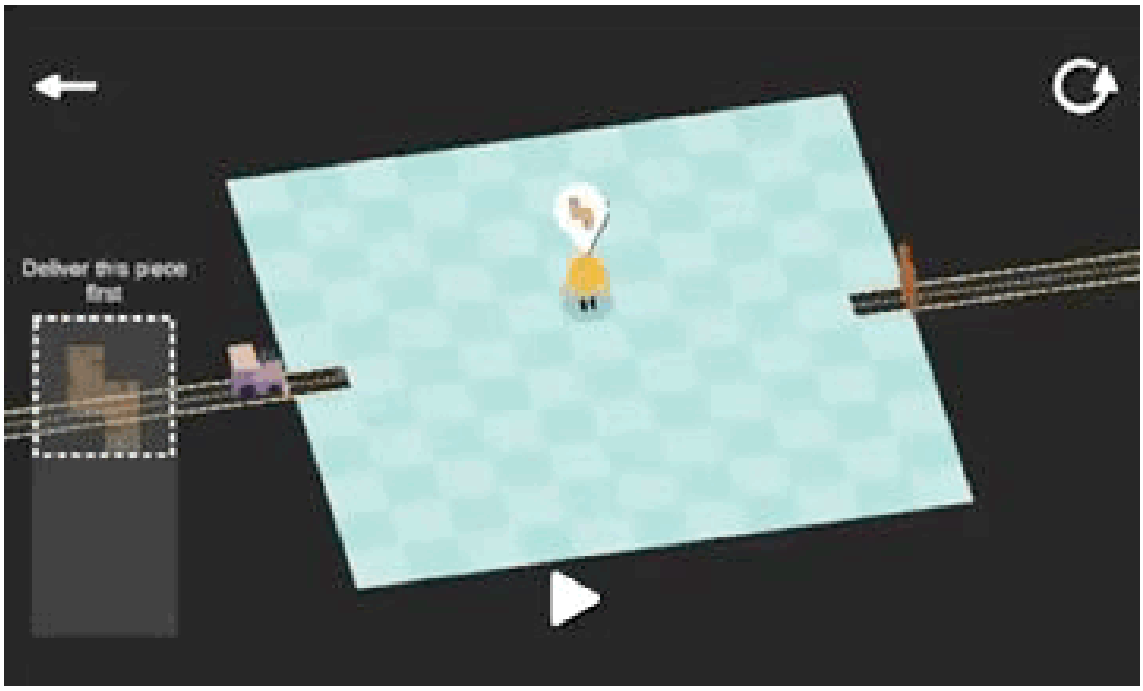


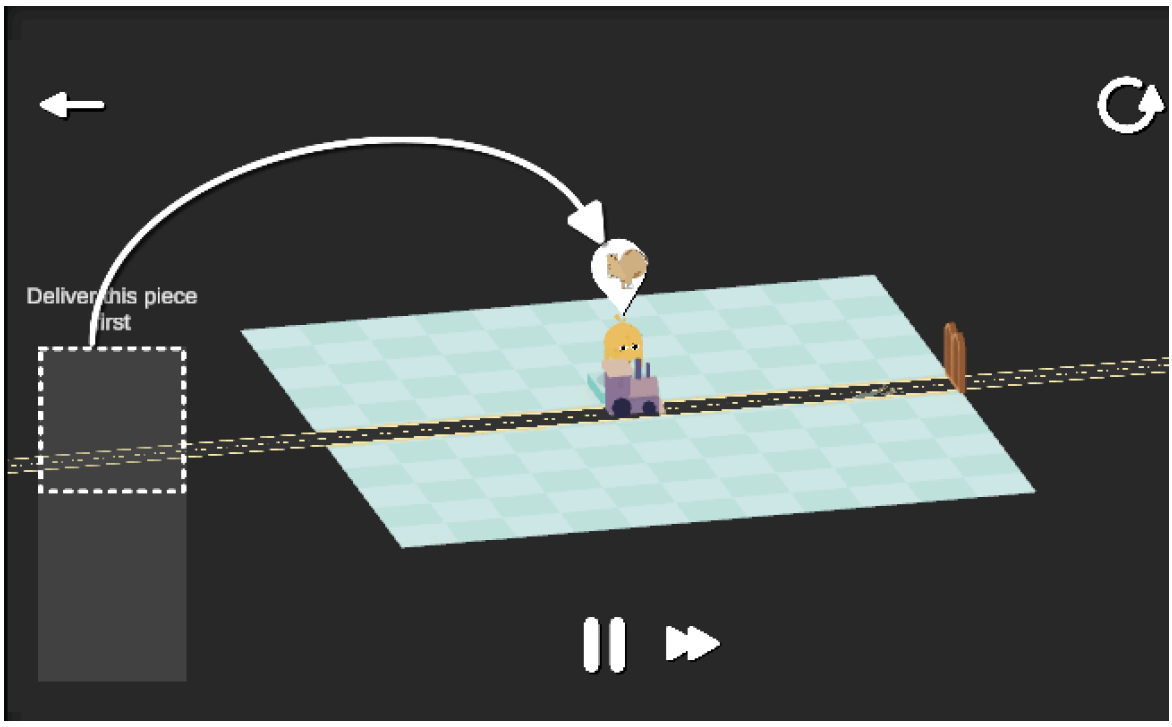
The above image shows the packaging scene of the level. Packages are present which can be dragged and dropped in the grid. It has the minimap present to guide the user according to the delivery location of the packages respectively. Deliver Button will take the user to the next scene.



Results are shown after the level completion. Options to Retry the Level or move on to the next level present.

Scaffolding





Adding more visual cues such as:-

1. A hand pointer showing how to place the tracks
2. An arrow showing when and which parcel was delivered to the delivery target.
3. Highlight the path they have previously taken and subtly convey that this would be the path from which tiles would break.

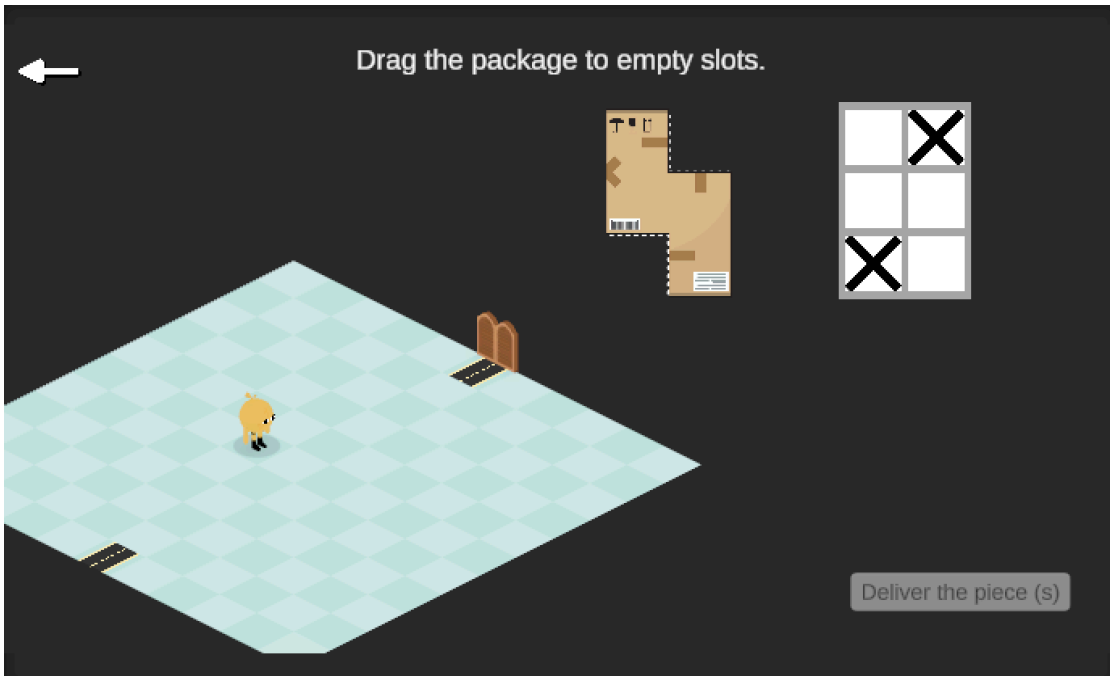
More tutorialization is explained in the tutorial-level description.

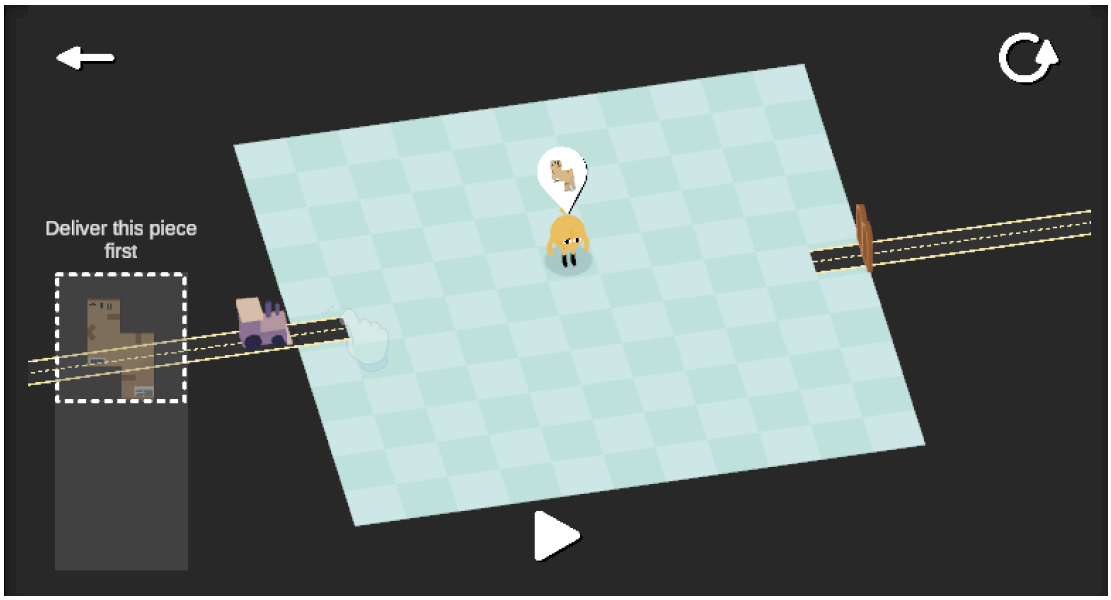
Level Mockups

Currently, the game has three tutorial levels and four main levels. Each level is associated with complexity. The levels are on the homepage.
Below is the description of the features introduced in the levels -

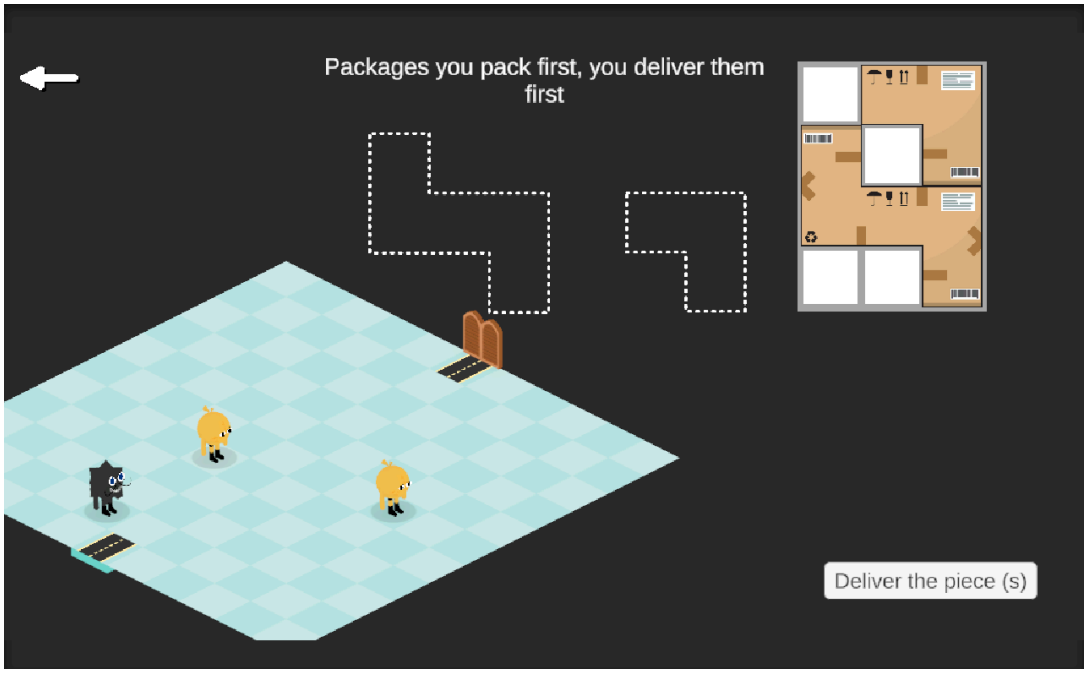
Tutorialization

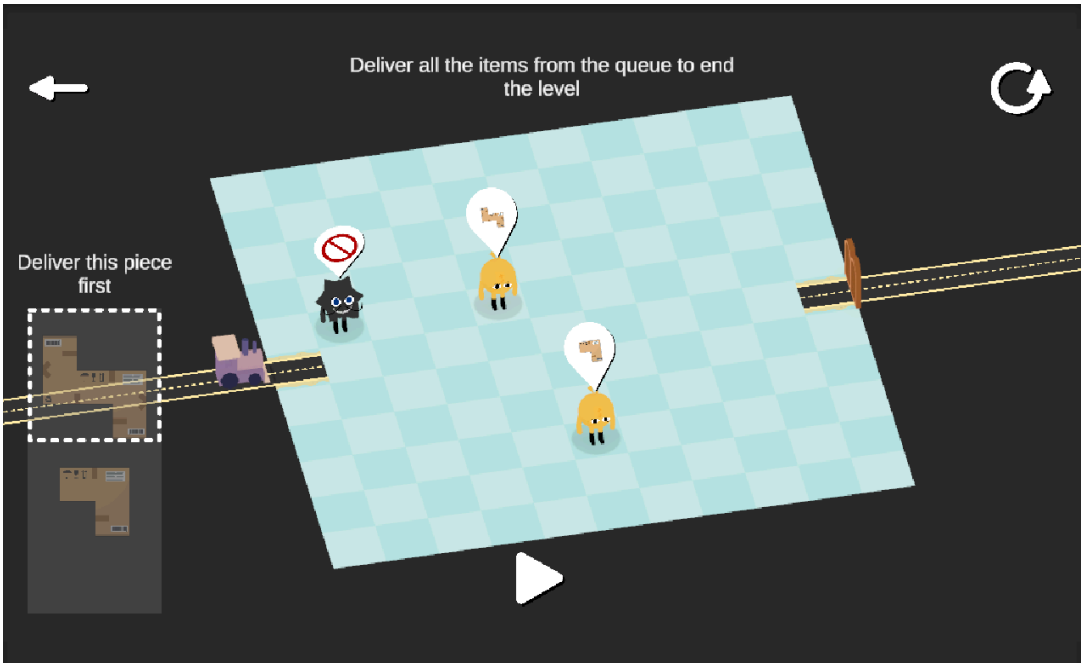
- **Tutorial 1:** Simple Packing of packages and Plotting of paths.



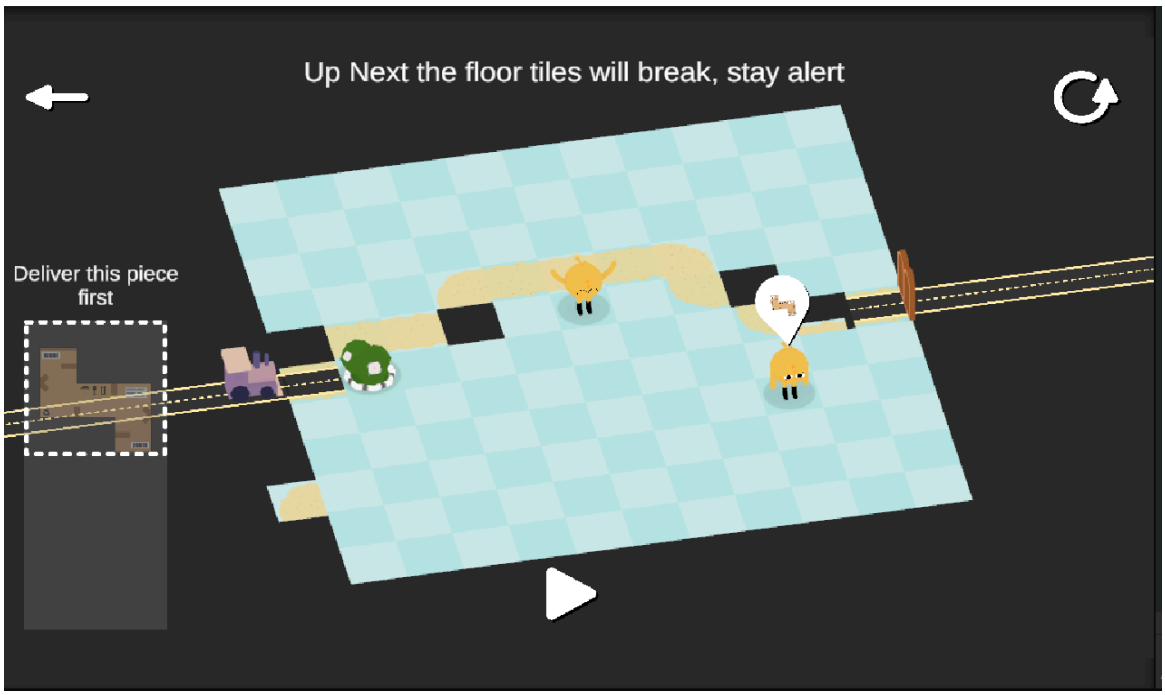


- **Tutorial 2**: Robbers are introduced who can steal the packages are introduced. A demand box is shown, giving a no signal that a player gas to avoid path plotting so the robber doesn't take the package. In this tutorial, we guide the player through the queuing of the packages, the package that the player chooses to pack in the grid, that package will be delivered first in the path plotting scene



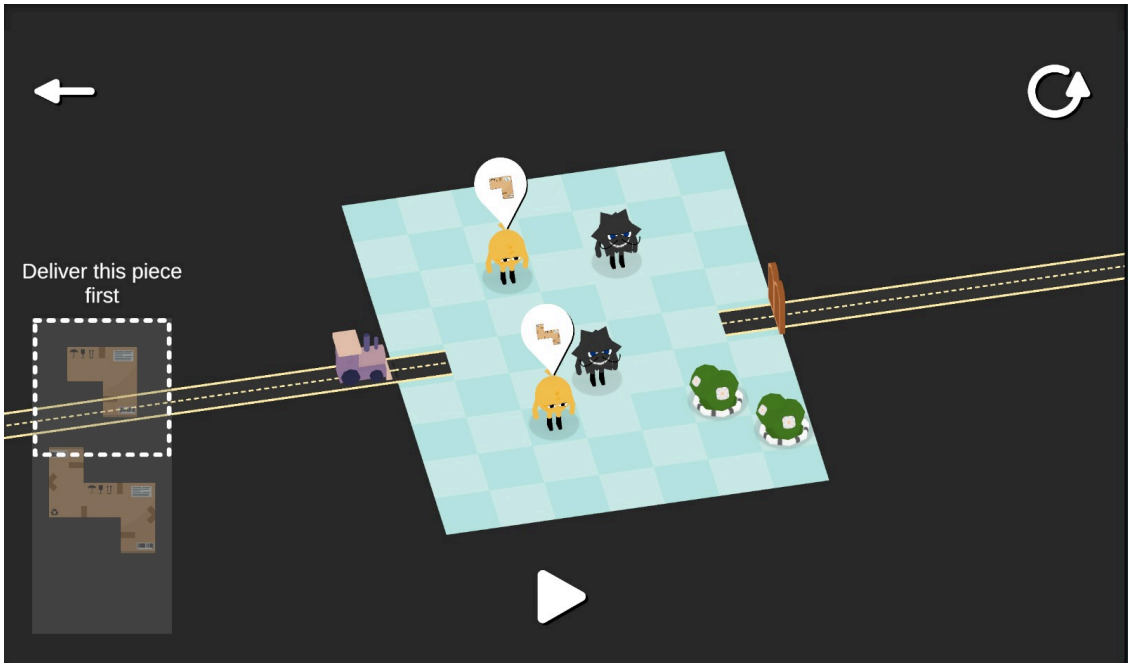


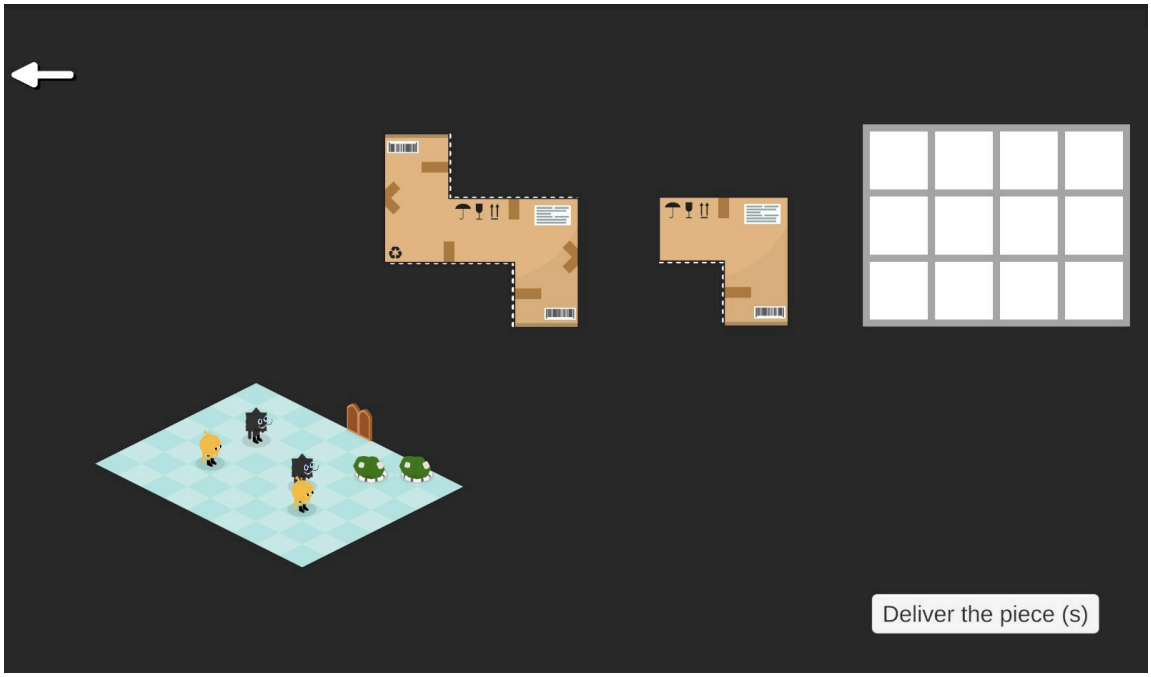
- **Tutorial 3:** Some tiles used for the first time in path plotting of delivery of first tile would be destroyed when trying to deliver the 2nd package and playing the level for one or more than one time.



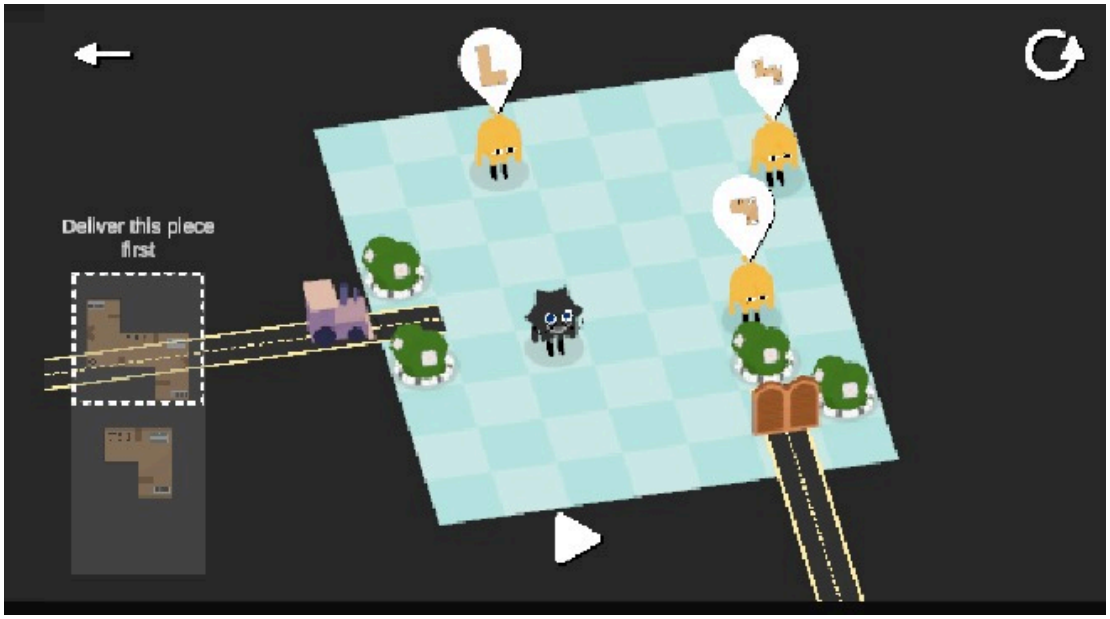
Challenge Levels

- **Level 1**: Level designed using features introduced so far. In this level the player needs to deliver the package while beating the robber and obstacles.

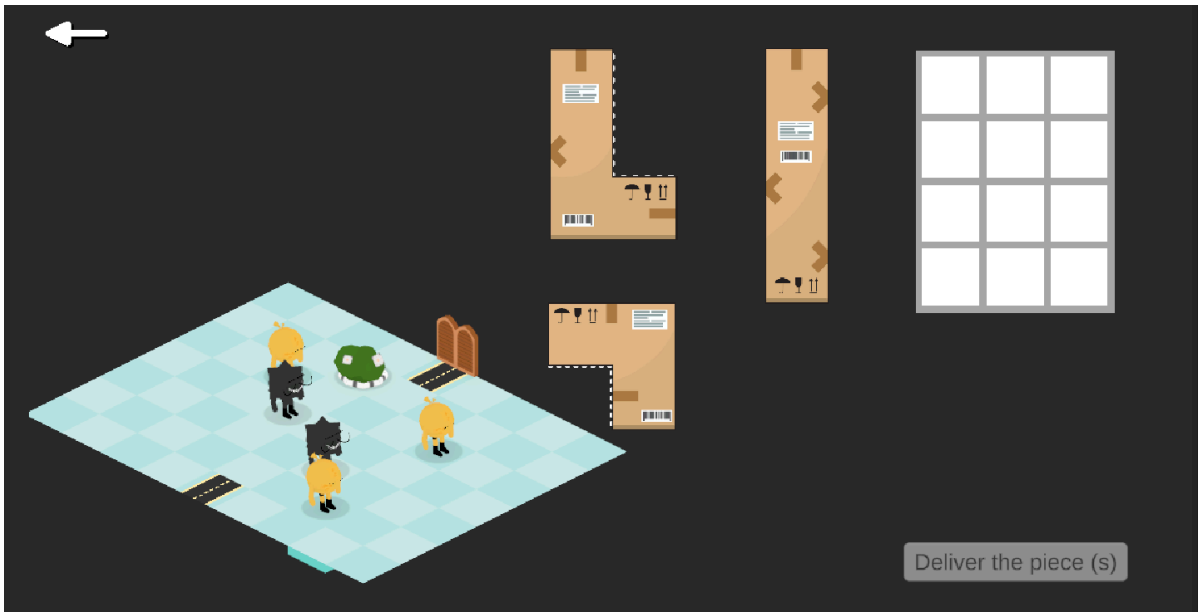


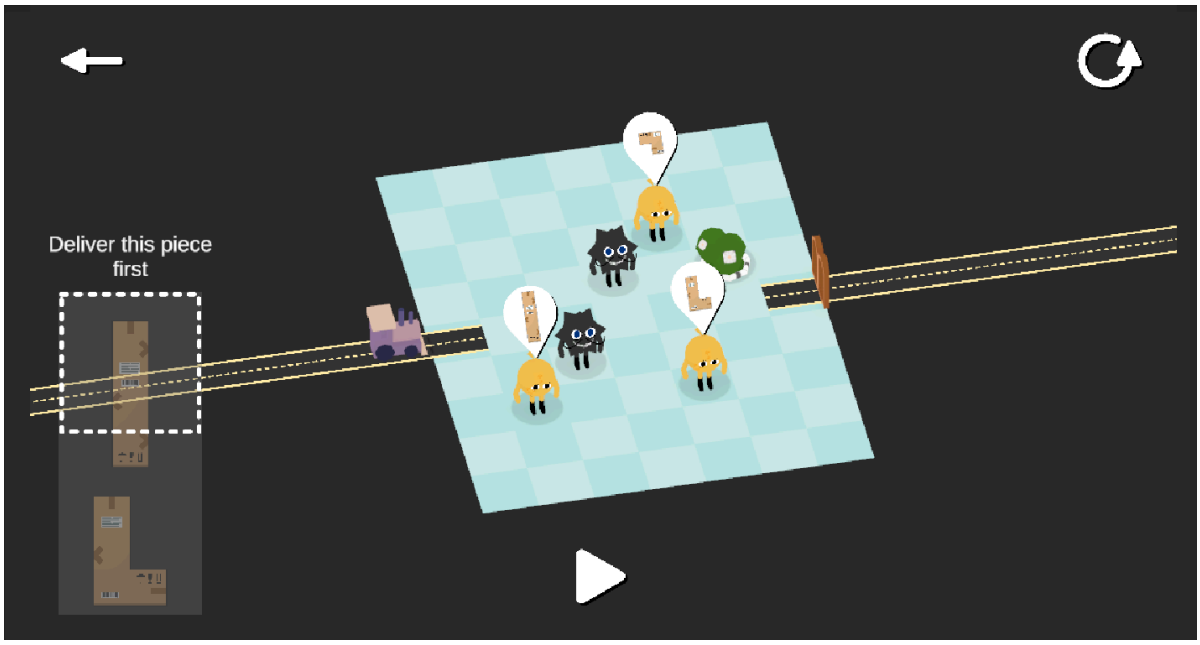


- **Level 2**: In the second level, players need to cleverly plan their route to outsmart the robbers and overcome various obstacles with an increased number of deliveries, as compared to Level 1.

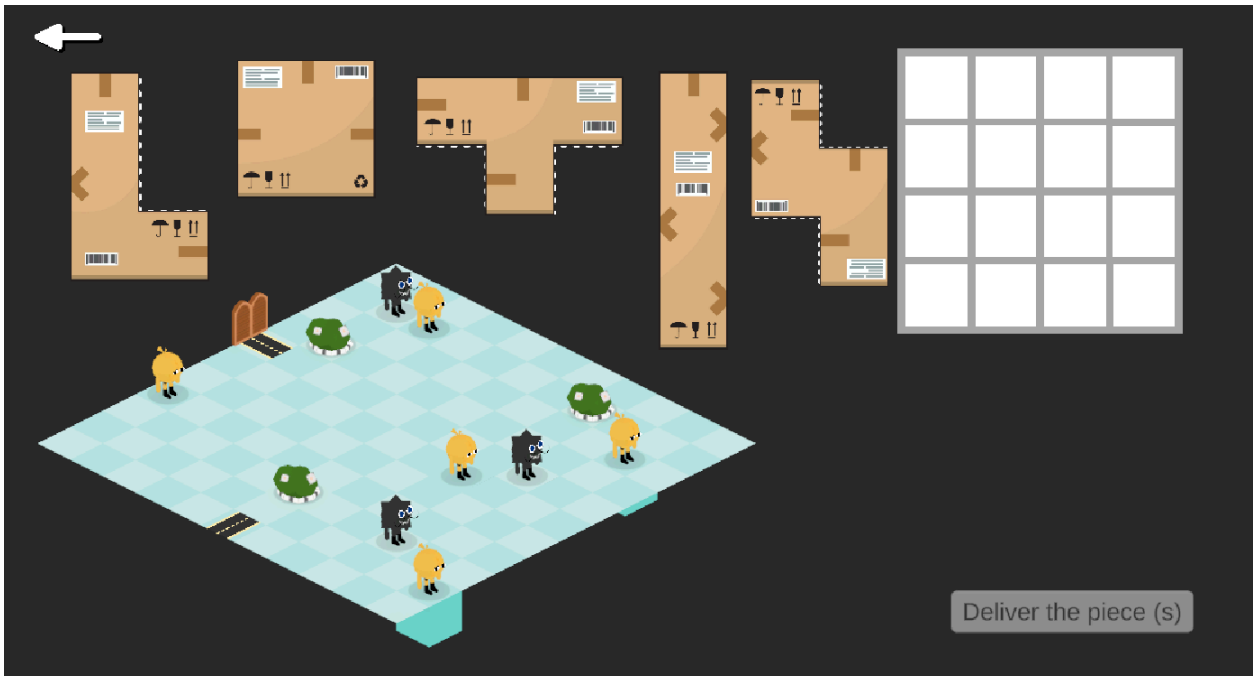


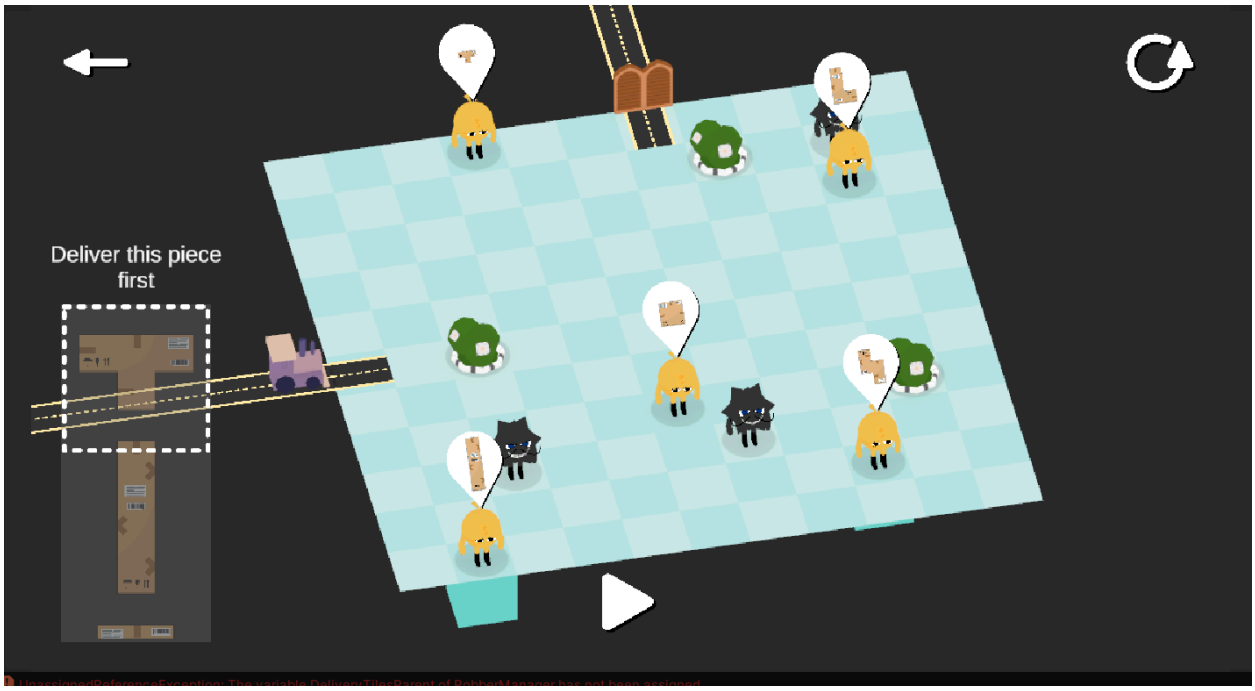
- **Level 3**: With an increased number of deliveries and obstacles along the way, we've introduced *Disappearing Tiles* which make the path plotting even trickier.



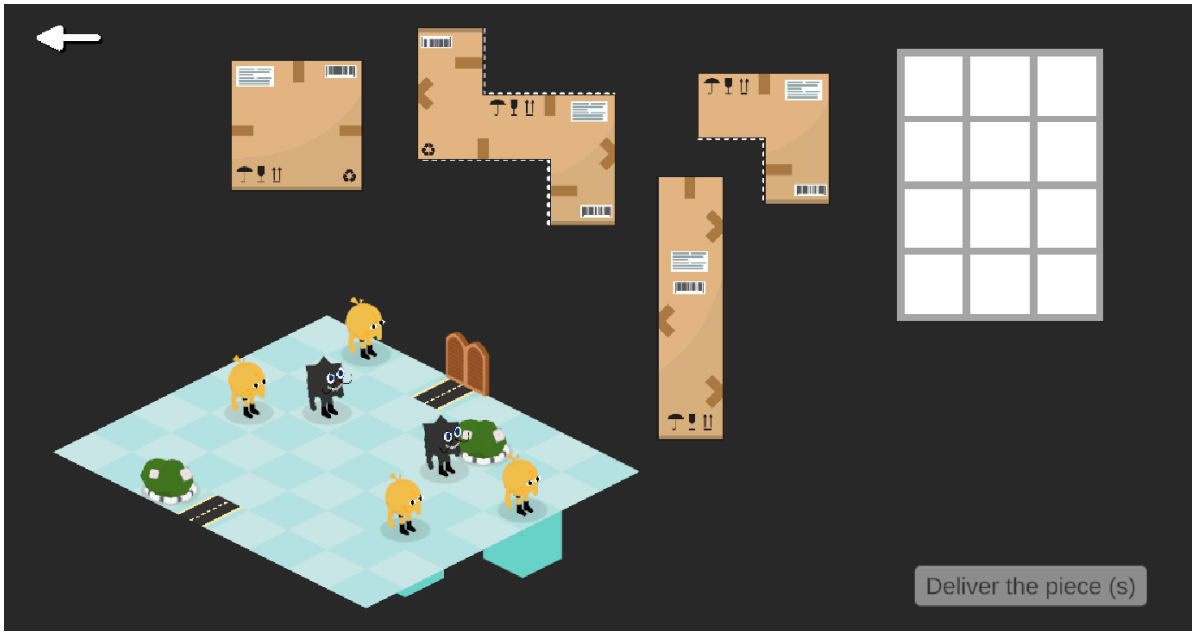


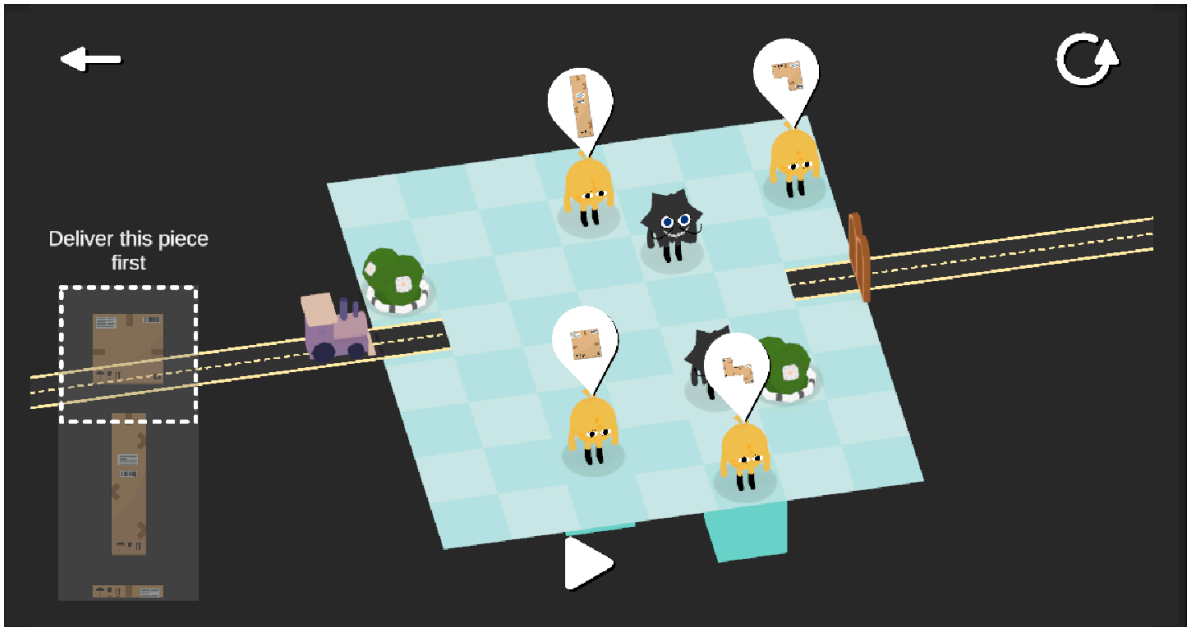
- **Level 4**: This level introduces, a change in the map orientation, i.e, changes the endpoint as well as a more complex structure of Tetris that is needed to be placed in the grid as packages





- **Level 5**: This level brings out the maximum efficiency of path-building and puzzle-solving, specially designed to challenge the player.





Matrices

1) Game Element Interaction Matrix

Subject/Object	Packages (Shivangi)	Plotting (Vedang)	Simulation (Siddhant P)	Environment Destruction (Siddhant S)	Obstacles (Preeti)
Packages (Shivangi)	-	Packages would influence the plotting of path according to the destination of a particular package.	Packages will be dropped when the simulation takes place.	Packages should be prioritized, considering the environmental destruction that can happen while delivering packages.	Robbers can steal packages if they come into their vicinity.
Plotting (Vedang)	Plotting will have to be done near the package's destination.	-	Plotting will enable simulation.	Plotting will be more challenging after environmental destruction.	Plotting will have to be done while avoiding obstacles.
Simulation (Siddhant P)	Simulation will take place for all packed packages.	The simulation will take place on the plotted path.	-	After simulating once, environment destruction occurs every time the player switches scenes to deliver a new package.	-
Environment Destruction (Siddhant S)	Pick the packages so less environment is destroyed.	Environment Destruction will take place on the plotted path.	The environment will be Destroyed after the simulation	-	Environment Destruction would be less around the robber.
Obstacles (Preeti): The	Robber will steal packages.	The robber will steal the package on the Plotted path. The	Robber will steal packages while the simulation is going on.	Robbers would be closer to the remaining tiles after environmental destruction.	-

2) Challenge Difficulty & Mechanic Usage Matrix

Level	Packing	Plotting	Simulation	Robber	Environment Destruction	Notes
T1	tutorial	tutorial	tutorial			
T2	easy		-	tutorial		
T3	easy	medium	-	-	tutorial	
L1	easy	medium	-	easy,	medium	
L2	medium	easy	-	medium,	medium	
L3	medium	medium	-	hard	medium	
L4	medium	medium	-	medium	medium	
L5	hard	hard	-	hard	hard	

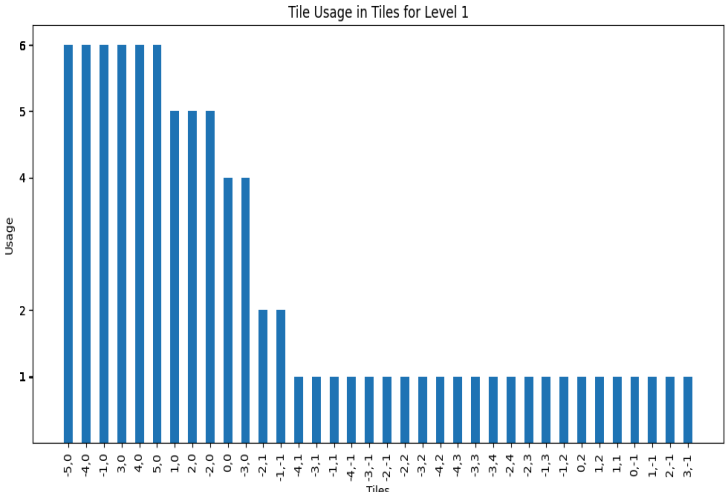
3) Twist & Mechanic Interaction Matrix

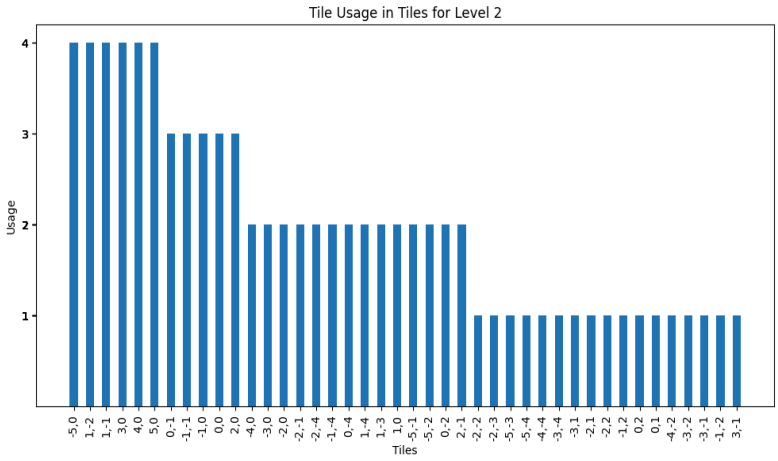
	Interaction with the Simulation Environment	Member	Support
Packaging	The packages packed and their order will influence the plotting and simulation.	**Shivangi**	Tilemap
Plotting	The simulation will take place on the plotted paths, which can be plotted again and again.	**Vedang**	Packing and Simulation
Robbers	Ideally, the player looks for delivery at suitable targets; in the path the robber takes the package it, player reset the path for suitable delivery	**Preeti**	Re-routing and Backtracking of the path plotting
Environment Destruction	Player when tries to follow the previous optimal path, **the floor tiles break**	**Siddhant S**	Re-routing and Backtracking of the course-plotting

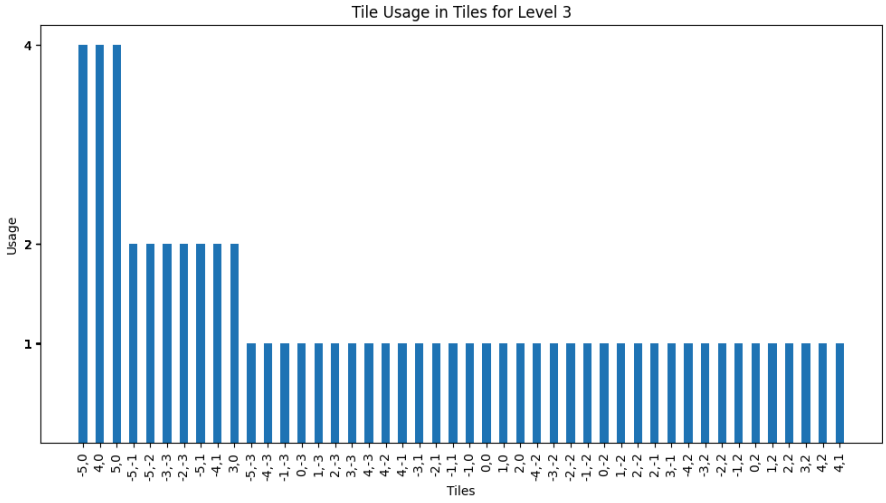
Analytics

Methodology Used: Firebase

Data Visualization: Python + Matplotlib



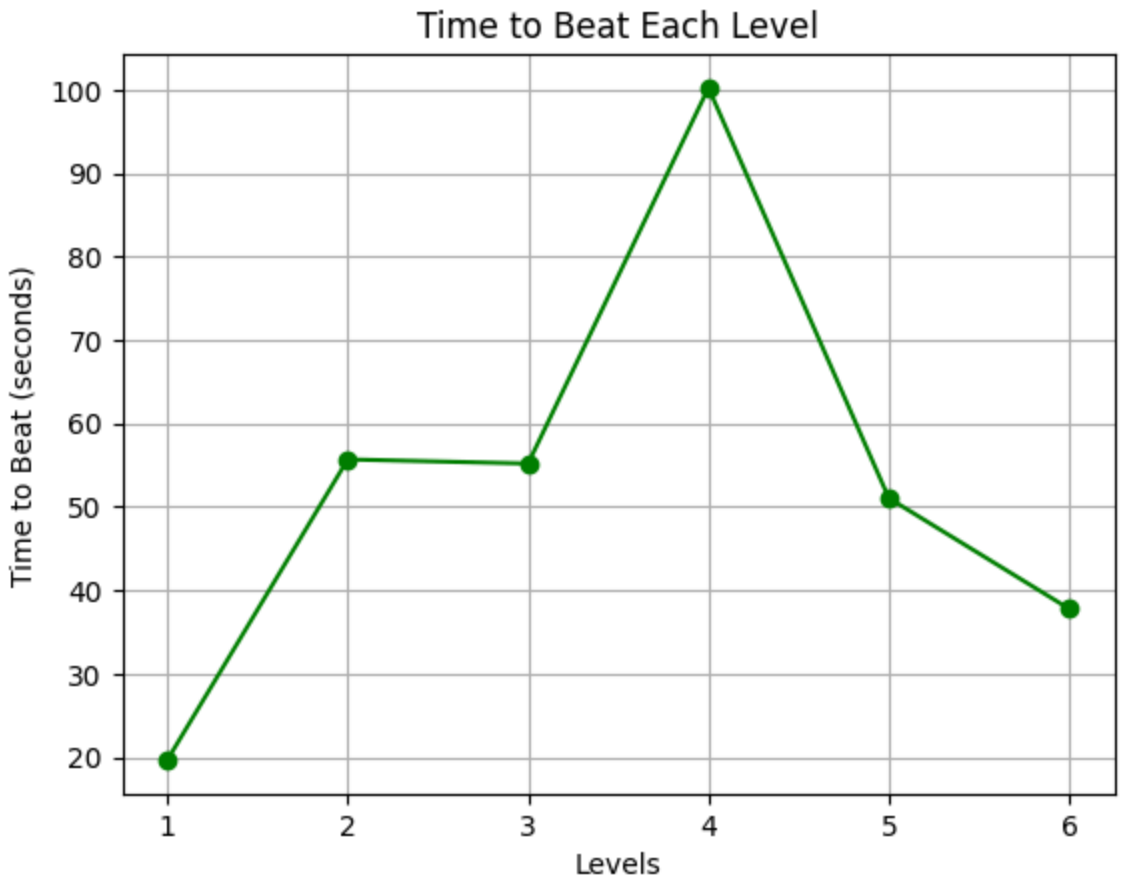




Expected results: Tiles near the delivery locations would be used the most.

Hypothesized cause: To understand the path taken by the user to deliver packages and reach their destination.

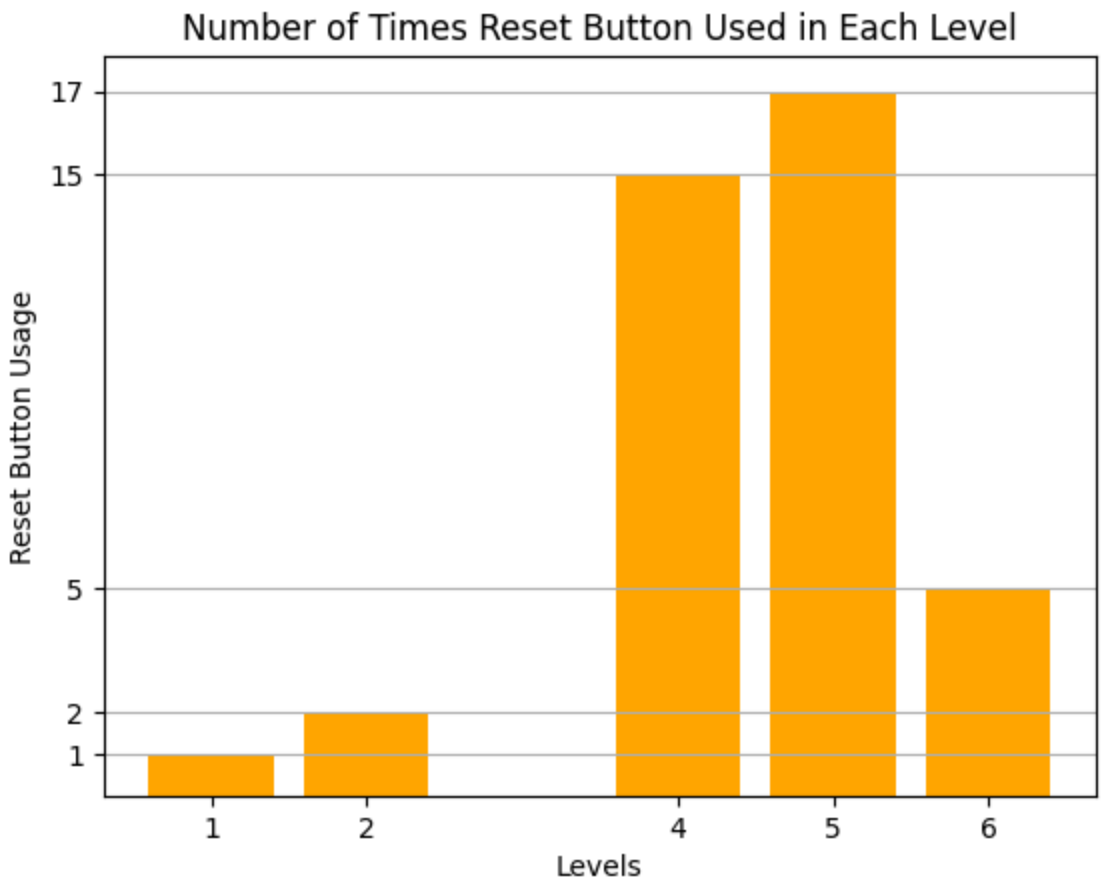
Potential solutions: To make the frequently used tile unstable to use (remove from the map after 2 attempts)



Expected results: More time is taken to play as the level of difficulty increases.

Hypothesized cause: To understand how difficult the player is finding the game.

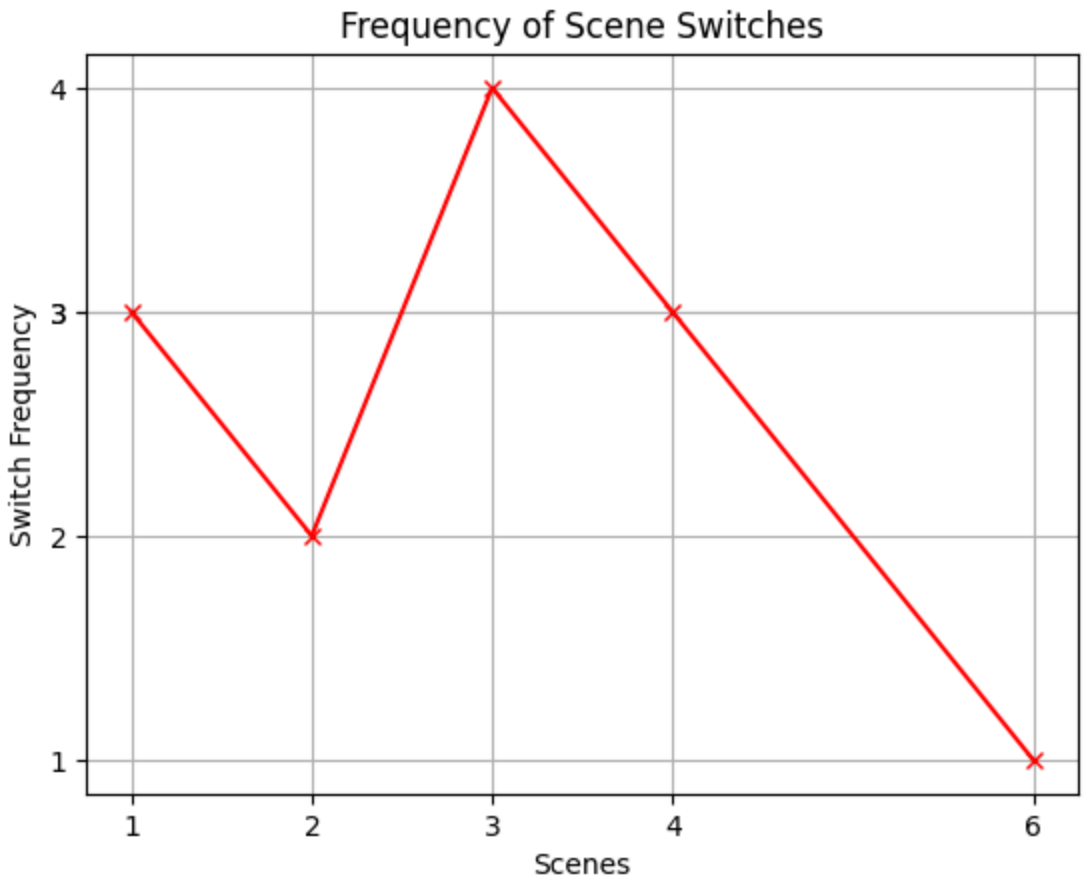
Potential solutions: To make levels either simpler or harder based on the results.



Expected results: To increase/decrease the Difficulty with each level

Hypothesized cause: To understand if the player is able to complete each level without the level being too easy or difficult.

Potential solutions: Adjust the difficulty level based on results.



Expected results: Frequency to increase as the Level increases.

Hypothesized cause: To understand if the player can place the packages in a grid efficiently.

Potential solutions: Adjust the difficulty level based on results.

Analytics - Hypothesis

Issue#1: Simulation Speed needs to be faster.

Explanation: Simulation Speed is kept in mind so the player can strategize a practical path and re-draw the plotting while pressing the reset button.

Feedback: Feedback consisted of at least 7 playtesters mentioning they didn't want to spend time waiting for too long for the simulation of multiple packages.

The car is moving a little bit slow.

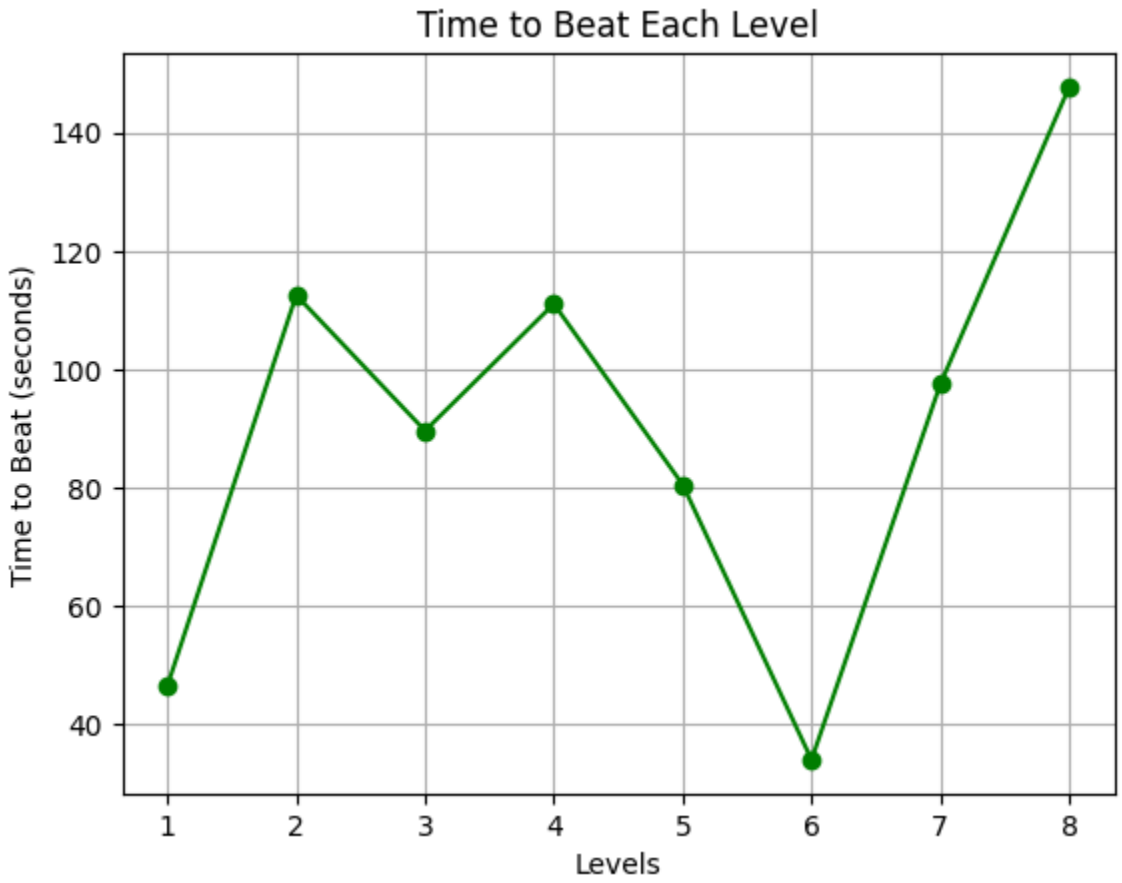
animation of the simulation is too slow

the animation takes a lot of time

the train was a little too slow.

make the train go faster once the packages are to be delivered.

Analytics:



The efficiency metric, which highlights the average time to complete the level supports the feedback received as the more challenging levels have a significantly higher completion time as compared to the easier ones.

Proposed Solutions:

1. Increase the simulation speed.
2. Fast- Forward button is added

Issue#2: Order of packages

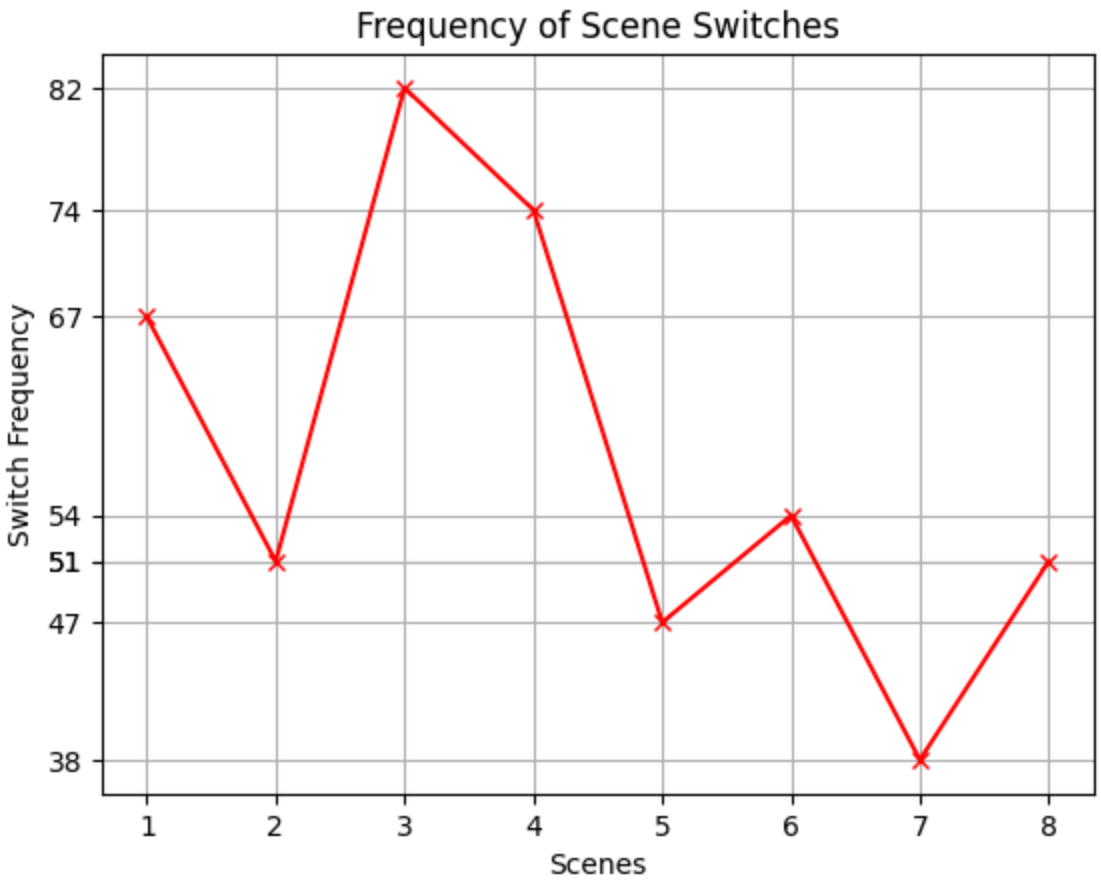
Explanation: Packages are placed in the delivery, in terms of what Tetris, we place first in the grid, in terms of package delivery. Users can choose which package to deliver first according to the spotlight on the yellow character

Feedback: We received feedback that players were not able to approach the packages and in which order they are about to get delivered in the plotting scene

Google Form:

- It's essential to ensure that the mechanic that players pack the packages remains relevant and meaningful to the overall gameplay. It makes me feel disconnected from the main game and become an unnecessary, potentially leading to other player confusion and frustration.
- No. I think there's no connection between the packing I choose and sequence I need to deliver.
- I really don't like how some packages have a set priority for which get delivered first. It makes the game frustrating because I want the train to deliver to the first customer they run into instead of having a set order in which the packages get delivered.
- the game is too straight forward in terms of difficulty, and it is not intuitive to deliver piece in a specific order. If all the piece is in one car, player can freely deliver in any order in my opinion

Analytics: Scene switching metrics does show that players get confused and switch back to the package scene to cross-check with the package to deliver what at first



Proposed Solutions:

1. Changing the order of delivery from vertical priority to fcfs.
2. We gonna explain in scaffolding the approach of first come, first serve of the delivery.

Issue#3: Player Dissatisfied with no reward system

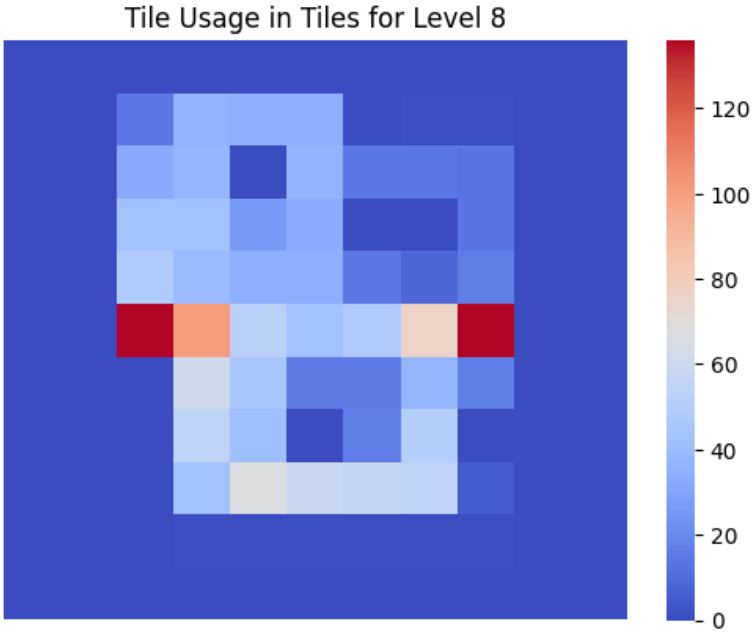
Explanation: Since this game is a simulation and puzzle game, we provide a score in terms of scene switches and how many packages are delivered successfully or not. But there is no direct relation between providing the rewards in terms of package delivery or effective path plotting

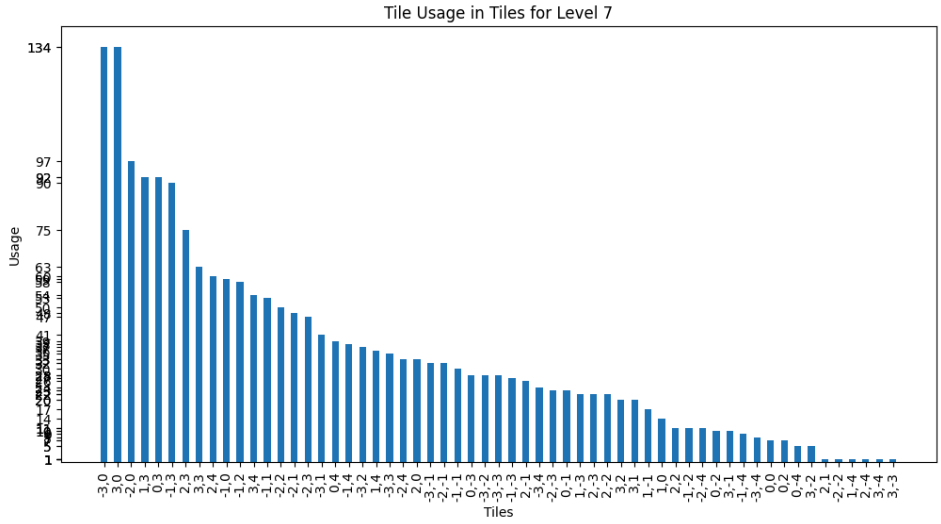
Feedback: We received feedback in terms of adding value in terms of having time constraints or path plotting constraints and linking to having rewards in later stages of the game

Google Form:

- Maybe add a scoreboard in the game. Players get more score by creating delivery path with shorter distance.
- make it more fun with more engaging elements . Some sort of rewards system

Analytics: Tile usage and Coordinates does help in setting up time constraints and points system accordingly





Proposed Solutions:

1. Implement a high-score system.
2. Implement a restriction on usage of tracks.

Issue#4: The Gameplay is not challenging enough.

Explanation: Since it is a simulation and puzzle game, for the initial level, we have tried to get the player to get a handle on what the game is all about through easy levels at the beginning.

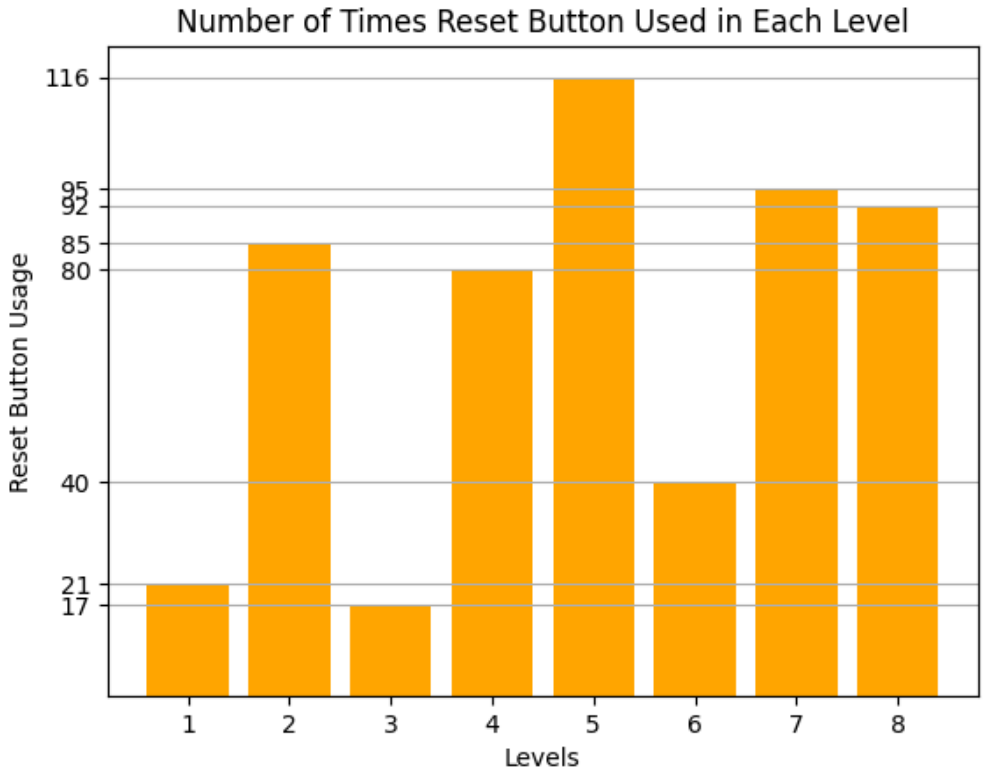
Feedback: We have received feedback in terms that levels weren't too challenging, whereas later levels some players thought to be difficult to solve.

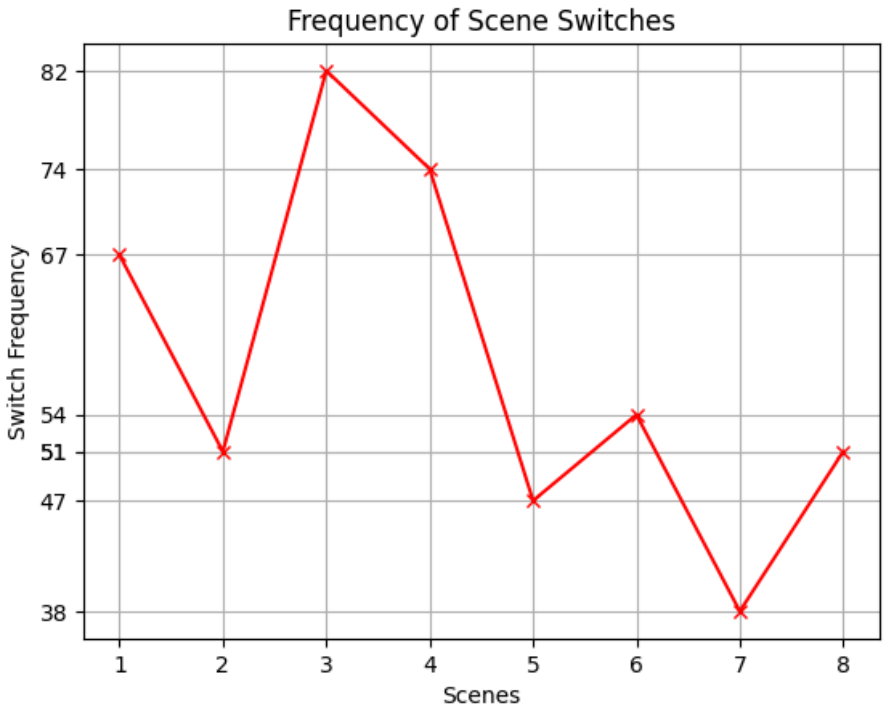
Google Form:

The game can be made it little challenging at the start. Initial levels were easier make the levels more challenging,

- The game is way too easy
- I think you can make it more challenging. It feels easy for now
- Nothing too challenging. Would like to see something more challenging in the game.

Analytics:





The analytics metrics of the number of using the reset button and scenes that were switched, help us to understand clearly which levels are easier and harder to solve

Proposed Solutions:

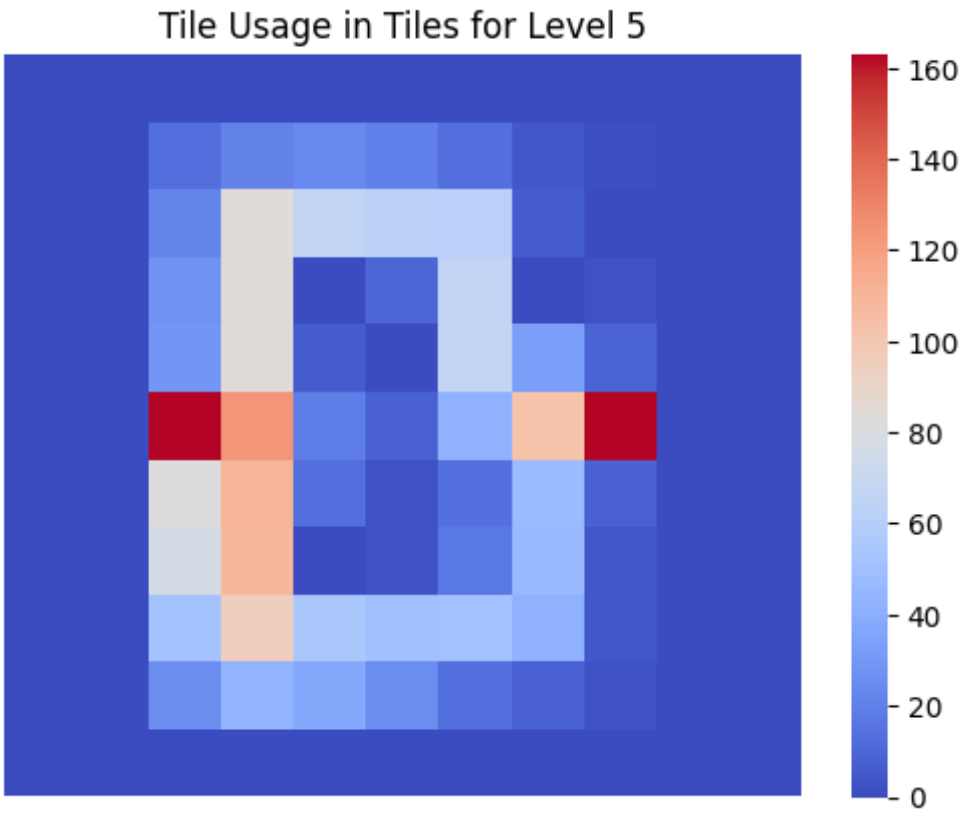
1. Creating a balanced level design starting from initial to solvable final levels
2. Focusing more on learning factors in tutorials and equally challenging all game levels

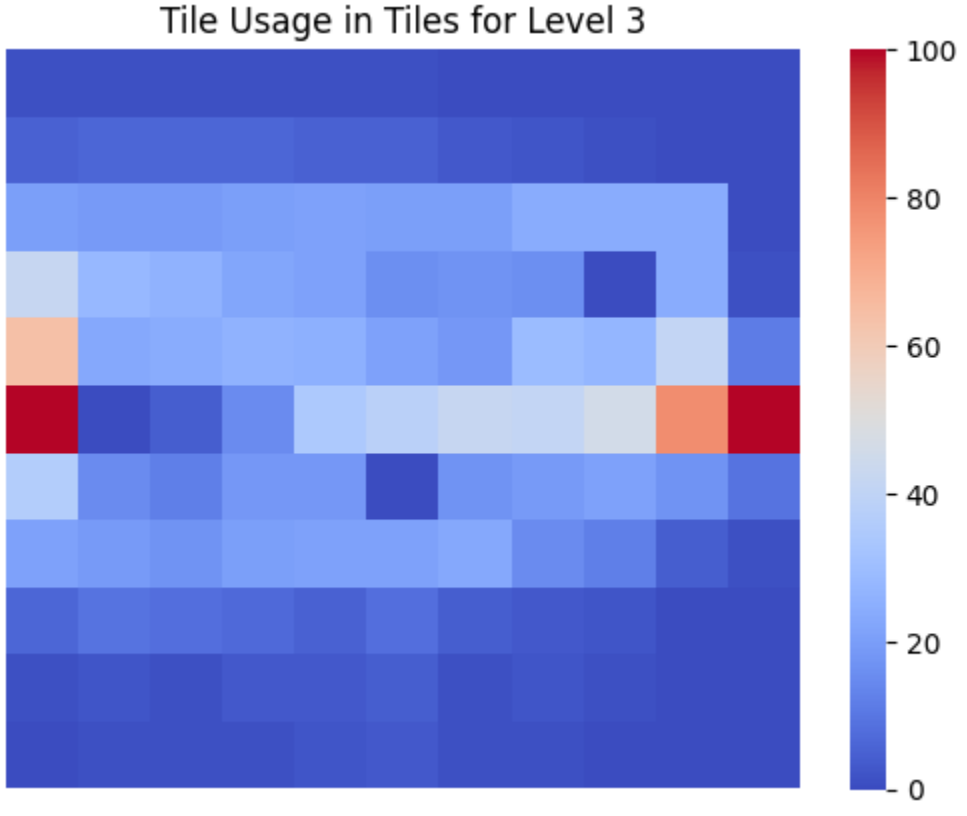
Issue#5: Tile Destruction Information Explanation:

Explanation: The tile destruction mechanism occurs when multiple packages are on the same level, and the user can't follow the same path of the 1st package of the same scene. We don't provide initially in the packaging scene which tiles are going to break since it adds to gameplay challenging and more fun.

Feedback: We received feedback about providing the tile destruction should be mentioned before delivering the second parcel in the minimap section

Analytics: The heatmap describes the tile usage, in levels


Tile Usage in Tiles for Level 5
160
140
120
100
80
60
40
20
0


Tile Usage in Tiles for Level 3
100
80
60
40
20
0

Proposed Solutions:

1. We will improvise on how to make players aware that tiles are going to drop beforehand by highlighting the path and destructed tiles in the minimap of the package scene as well as the path is highlighted in the plotting scene when the tiles are getting destroyed from the same path.

Issue#6: Logic between package scene and path plotting scene

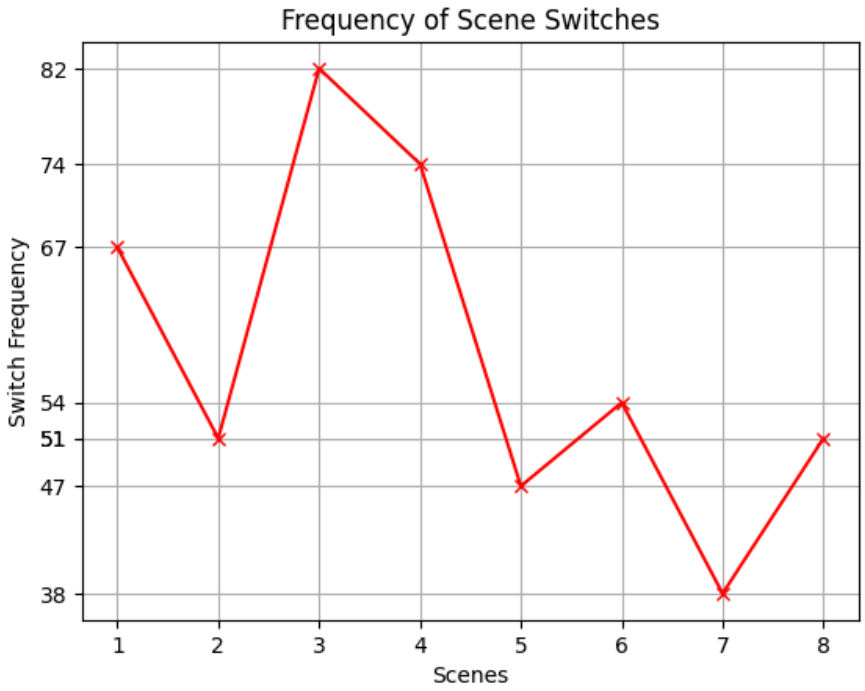
Explanation: The scene of the package and path plotting is kept separate from the instruct player where the package needs to be delivered and what order in the plotting scene

Feedback: We received 30 feedback saying the puzzle and package link is not understandable. It should be more elaborative on how the puzzle and package delivery are linked, it was clear in later levels, but the player couldn't understand at first go.

Google Form:

- I really don't like how some packages have a set priority for which get delivered first. It makes the game frustrating because I want the train to deliver to the first customer they run into instead of having a set order in which the packages get delivered.
- I wasn't realized the reason of designing the packages onto puzzle, until the level 3 when we need to consider deliver in order.
- found the gameplay of the game confusing, not sure what the objective is

Analytics:



The scene switches, what we observed in the analytics clearly state that initial and the levels were harder, the scene switches were more, as compared to the levels which were less hard

Proposed Solutions:

1. Show some narration and use some image assets in initial level or in the tutorial section on why and how scenes are connected
2. Moreover, if 1st tutorial level is kept mandatory or not.

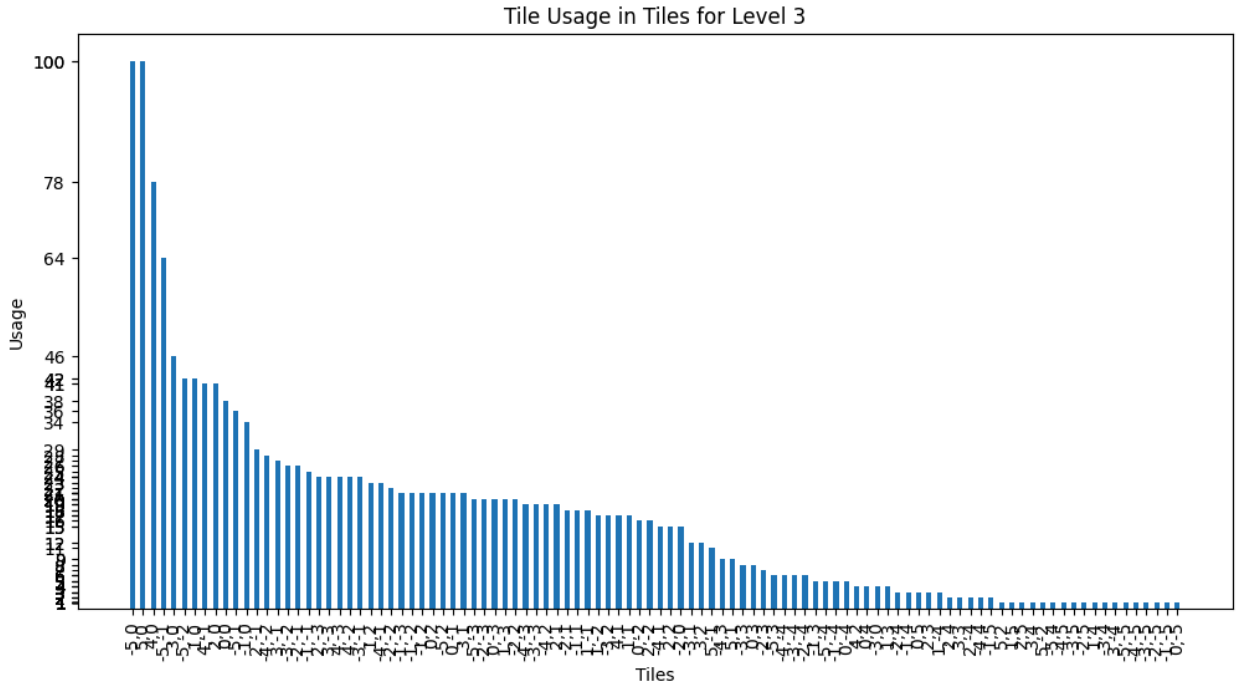
Issue#7: PathPlotting Design Confusion

Explanation: Initial and End points are given for the player to connect the path and plot it according to strategy.

Feedback: Feedback we received that some players were unclear about how the plotting initiates and which tiles will be accessible to the plot.

- not sure, deliver packages but confusing with path building
- The pacakage part is quite confusing(not strongly related to the other part of the game); maybe more mechanics can be imported.
- Ambiguity in the transition between packaging and delivering scenes, confusion with the minimap, and the need for more interactable elements.

Analytics:



Coordinates of tiles used and the number help us to make animation strategies to tell the user how to initiate the plotting.

Proposed Solutions:

1. Making animations clear and much more informative of how to path plot
2. Make it time-effective to show the animation in order in tutorials so that the player understands it without more hassle

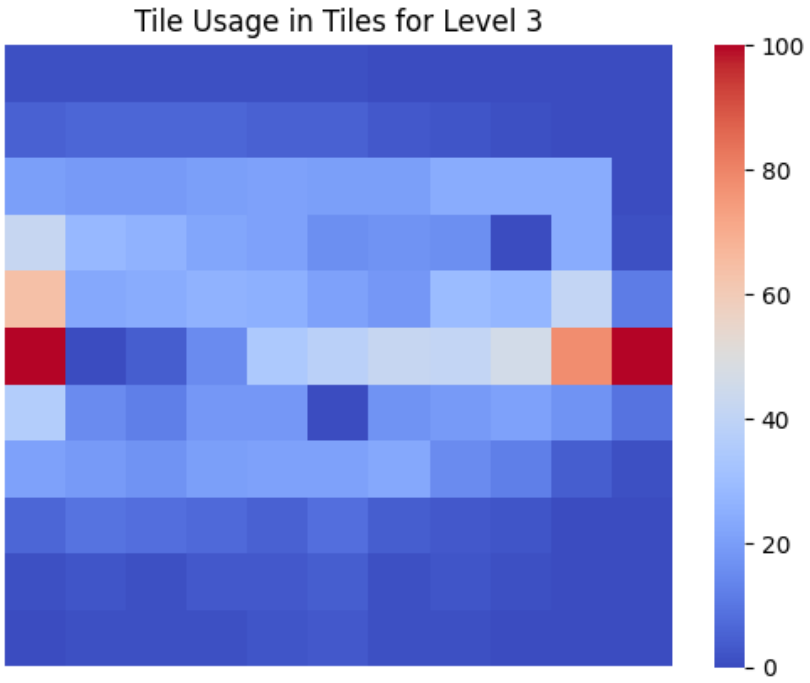
Issue#8: Unclear about certain game elements

Explanation: Game elements, such as robbers, add more creative aspects to make the player guess and devise strategy of plotting and delivery accordingly
Feedback: We received feedback that players were unclear what black character and green obstacle were and what tiles are for what, making them confused if it's movable or not.

Google Form:

- Creating the puzzle in tutorial is unclear
- The connection was unclear initially due to the absence of proper indicators, causing confusion in understanding how actions in the packing scene affect the plotting scene.
- The initial box fitting in the matrix is something unclear initially. The mechanism to place road tile/block is not smooth can be little frustrating. I was initially not able to understand what button i have to to place the package in the matrix.

Analytics:



A heatmap of tiles helps make regulations regarding level design and deciding to keep robbers and obstacles at what position.

Proposed Solutions:

1. Add a canvas scene before the level selection and game start ust before levels and start the game. Scene, can we add another canvas telling what elements are what in the game,
   Like - a yellow one showing woodsyBlack- is the robber and Tetris is the packages
2. Adding a rules button in each level explaining the elements.

Issue#9: Scope of the Robber

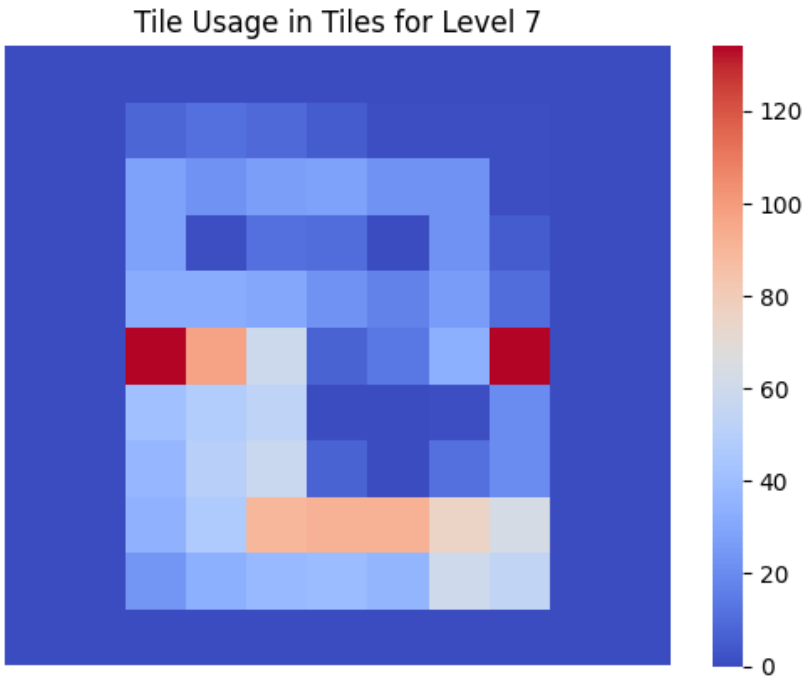
Explanation: Plotting near the robber automatically delivers the package to the robber animating the payer, which needs the package to be sad. In any direction, if we move near the robber, the robber collects the package

Feedback: We received feedback that the scope of the robber getting the package is unclear.

Google Form:

- Not able to understand how to avoid the robber
- How to avoid the robber.

Analytics: A heat map of the tile surrounding the robber shows how the plotting is done for players..



Proposed Solutions:

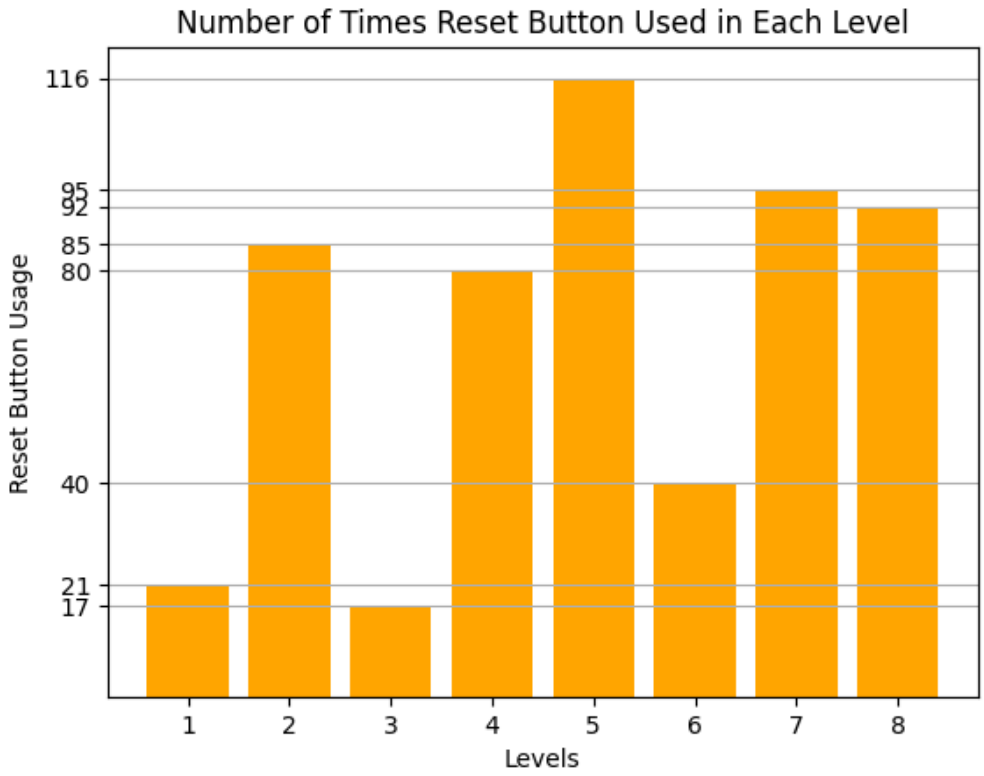
1. More Tutorialization of the robber's objectives
2. Telling the scope of the robber in tutorials or very initial stages of level

Issue#10: The player is confused about when the package will be delivered

Explanation: The delivery guy platform rises even when the parcel is not going to be delivered to the delivery guy. This is because the robber would intercept the plotted path, and the package gets delivered to the robber.
Feedback: We received feedback that whether the package would get delivered is unclear.
Google Form:

- *Could not understand how to deliver the 2nd parcel ? and when we go back to menu the delivery this package disables*
- *But i didn't fully know if the items already have an order in which they are to be delivered or is it based on which item i chose first in the packing scene.*

Analytics:



Proposed Solutions:

1. Make clear when the platform rises and what is a clear indication of delivery.
2. Highlight when delivery is about to hapen.

Review Notes

10/06 Alpha Progress Check	
Feedback	**Implemented Solution**
Pieces are getting overlapped and are getting placed at random grid positions	Maintained grid constraints and checked if a piece is already present. Move the place back to a constant placeholder.
Mechanics unclear for 1st Scene	Added simple placeholders, text, and animation to guide the player.
Selector is misunderstood as a shooting aim	Added tracks to get more context. Adding a train to understand the game design.
The player was vague about the directions and understanding of the plotting	Added simple start and end points, text, and animation to guide the player. A queue to show the packages to be delivered.
The structure of the game is disconnected.	Broke down the game into multiple levels, each covering a specific mechanic.

10/20 Alpha Prototype Presentation	
Feedback	**Implemented Solution**
Discontinuing the idea of between packaging and delivering scenes	Added UI and Instructions to focus on the idea of how the packaging and delivering the items are connected
Need More Interactable Elements in the Game	Thought of 2 new mechanics to be implemented

10/27 Beta Progress Check	
Feedback	**Implemented Solution**
There was confusion with the minimap.	The text hovering over the minimap was misleading, and fixed the misleading text.
The player did not understand if this was a tutorial and no level selection menu was available.	A proper UI with a menu to select tutorial levels and the main level was added to the game.
There was no proper level design to be seen.	Levels are designed based on what players like ranging from easy to hard.
There was no considerable mechanic observed.	2 new mechanics were implemented.
More interaction was needed.	The new mechanics implemented add interaction with the game.
The levels were too easy; the player wanted more challenging levels.	Harder levels are designed.
There was no indication of the flow of the level.	Proper indicators like a gate in the plotting scene to stop the train from moving (indicating the level hasn't finished yet) are added.

10/27 Pod Testing	
Feedback	**Implemented Solution**
There was confusion with the ordering of the packages in the queue in scene 2.	We have updated the packaging sequence on the basis of FIFO (First In, First Out) to make it more intuitive to the player.
The player did not understand the robber element.	In tutorial 2 we have specified the robber's action and his scope. We have added a demand box on the robber to denote that he is a negative element, and we should avoid it. We also change the background when the robbery happens to indicate to the player that something bad has happened.
The player did not understand which tiles were breaking.	The path highlighted now, from which the tiles are gonna break, is being shown in the package scene in the minimap section as well as the path plotting scene well
The player missed the delivery queue present in Scene 2.	We have highlighted the sequence more and made the background darker to make it more prominent.
There was no indication present if the level is not playable anymore.	We added a Gateway to the next level, the gates won't open if the level
The player was finding the levels easy and demanding more challenging levels	New levels were introduced and also made changes in existing levels to make them harder.

Weekly Homework

	Week Due	
Team Member	**Week 6**	**Week 7**
Vedang	Game Design and Idea generation	Path Plotting
Shivangi	Notetaking and technical setups	Packing miniGame
Siddhant Singh	GDD, Executive-admin, Time-Line & Followup	Environmental Destruction and energy management
Preeti	Notetaking and technical setups	Powerups planning (dependent on PLayer Tripping)
Siddhant Porwal	Notetaking and technical setups	Player Tripping

	Week Due	
Team Member	**Week 8**	**Week 9**
Vedang	Updating Path Plotting	Context between Scenes
Shivangi	Taking care of overlaps, new scenes	Checking transitioning conditions, GDD
Siddhant Singh	Player Controller	Analytics in Game
Preeti	Minimap	Minimap and spotlight on delivery location
Siddhant Porwal	Train Rotation, Delivering Packages	Mock Ups, GDD

	Week Due	
Team Member	**Week 10**	**Week 11**
Vedang	Updating Path Plotting, Bug Fixes	UI, Level Design, Analytics
Shivangi	New Scene and Package	Level Design, Matrices, GDD
Siddhant Singh	Analytics, GDD	Environment Destruction Mechanic
Preeti	Minimap Update	Robber Mechanic
Siddhant Porwal	Train Rotation and Simulation Update	Carriage Update, GDD

	Week Due	
Team Member	**Week 12**	**Week 13**
Vedang	Feedback Evaluation	Train simulation faster
Shivangi	Feedback Evaluation	GDD
Siddhant Singh	GDD	GDD
Preeti	Minor fixes	
Siddhant Porwal	Extra credit proposal	Extra credit proposal

	Week Due	
Team Member	**Week 13**	**Week 14**
Vedang	Deciding the order and making that explainable.	Adding sounds and Uniforming UI
Shivangi	Adding highscore and end condition	Highscore, Level Design, GDD, Issues
Siddhant Singh	Highlighting the path used	Issues, GDD, Level Design
Preeti	Adding sound and highlighting the robber	Add extra features to the robber mechanic to make it more clear to the player
Siddhant Porwal	Adding Robber UI Tutorial Update	Issues,GDD, Extra credit

Individual Contribution

1. Vedang(Captain)

Week 6:

- Conceptualize core game mechanics, objectives, and win/lose conditions.
- Develop storyboards for game progression and gameplay elements.
- Collaborate with the Level Designer to discuss gameplay pacing and difficulty progression.

Week 7:

- Refine the game's mechanics based on the feedback from the team.
- Review the overall design and prepare for the next phase.

Week 8:

- Refine the game's mechanics based on the feedback from the grader and Professor.
- Work on plotting paths.

Week 9:

- Made a UI design, managing the scene transitions.

Week 10:

- Bug fixing
- Review overall design and prepare for the next phase.
- Work on player experience feedback mechanisms (e.g., visuals or vibrations when packages are dropped).

Week 11:

- Designed the game UI.
- UI elements added. Use the main menu and back buttons to navigate through the scenes.
- Combining all levels.
- Work on Analytics implementation.
- New shapes ui designed.

Week 12:

- Ideas for improving package ordering.

Week 13:

- Increased speed of the train.

Week 14:

- Changed the ordering of packages.

Week 15:

- Made all visual cues sharper, added sounds, uniformed the UI, and worked on the level summary.

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2. Shivangi

Week 6:

- Set up the game engine and collaborate with the Game Designer on implementing core mechanics.
- Prototype player movement, package interactions, and power-up functionalities.
- Develop a system for tracking package deliveries and game progression.

Week 7:

- Implement package stacking mechanics and the environmental interactions (destructible tiles, power-ups).
- Work on the save/load system and in-game settings.
- Debugging and optimization based on QA Tester's feedback.

Week 8:

- Grid constraint and overlapping condition.
- Duplicating Scenes.

Week 9:

- Placement of blocks and maintaining queue.

Week 10:

- Working on 3 scenes and moving between packing and plotting scenes
- Bug fixing and improving packaging mechanism

Week 11:

- Managing the builds and improving packaging script.
- New package prefabs created.
- GDD Documentation, Matrices, and Level Design.

Week 12:

- Evaluating feedback and analytics.

Week 13:

- Working on Hypothesis and minor bugs.

Week 14:

- Working on GDD, hypothesis, level design.

Week 15:

- Working on high score, level design, reordering levels, minor bug fixes.

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3. Siddhant Singh

Week 6:

- Sketch character and environment concepts after understanding the game's aesthetic.

Week 7:

- Create assets for the game environment, including textures, props, and backgrounds.

Week 8:

- Player Control moments.

Week 9:

- Organize and optimize assets for the developer to integrate
- Analytics Integration
- Player Controller movement Completed.

Week 10:

- Collaborate with the Level Designer to visualize different game stages.
- Documentation and Analytics Mockup

Week 11:

- Worked on Environment Destruction Mechanics.
- Level Design for that Mechanic.

Week 12:

- Working on Analytics feedback.

Week 13:

- Working on Hypothesis.

Week 14:

- Highlighting the path already chosen by the player.

Week 15:

- Level Design, searched sounds, worked on issue.

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4. Preeti

Week 6:

- Understand game mechanics and start creating rough sketches of level layouts.
- Focus on challenges, power-up placements, and obstacles per level.
- Collaborate with the Game Designer to ensure level designs align with game progression.

Week 7:

- Implement and refine the initial levels using the game engine.
- Adjust level difficulty based on feedback and playtesting.

Week 8:

- Minimap creation and placement.

Week 9:

- Dynamically changing the location of the minimap.

Week 10:

- Plan future levels and possible gameplay variations.
- Minimap Advancements

Week 11:

- Working on the robber mechanic.
- Working on new scenes.

Week 12:

- Evaluating Feedback.

Week 13:

- Making Canvas Changes to fix the UI.

Week 14:

- Making robber highlighted and adding sounds to the game.

Week 15:

- Add extra features to the robber mechanic to make it clearer to the player.

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5. Siddhant Porwal

Week 6:

- Set up testing environments and tools. Familiarize oneself with the game's objectives.
- Conduct preliminary tests on early prototypes, focusing on player mechanics.
- Document issues and provide feedback to the Programmer and Game Designer.

Week 7:

- Intensively test the levels created by the Level Designer.
- Focus on gameplay balance, ensuring that challenges feel fair and enjoyable.
- Compile a comprehensive report on bugs, glitches, and suggestions for the team.

Week 8:

- Simulating train.

Week 9:

- Delivering packages at correct positions.
- Documentation update.

Week 10:

- Player Controller Motion Handling

Week 11:

- Simulation Train-Carriages dynamics updated.

Week 12:

- Working on feedback and Game UI.

Week 13:

- Working on the Extra credit proposal.

Week 14:

- I added the Robber UI to the tutorial.

Week 15:

- GDD, issues, extra credit.

References

Name	Link	Usage
Drag Drop in Unity3D	https://www.youtube.com/watch?v=kWRyZ3hb1Vc	To move the packing minigame objects
MiniMap	https://www.youtube.com/watch?v=K6FpyLXd9Zk	To make the minimap for scenes.
Simulation	https://youtu.be/NKh-tkf3iaQ?feature=shared	To make the train move.