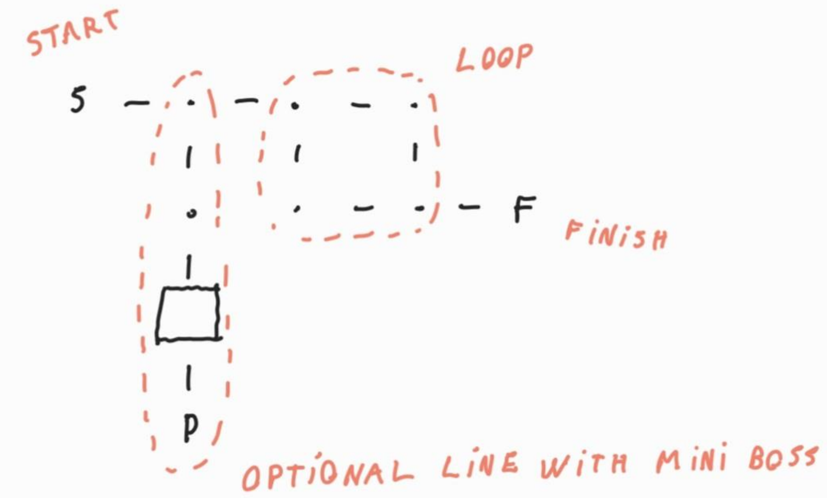
Sprint 3 – Team No.1

DONE:

- Menu:
    - o Main menu
      - New game
      - Exit
      o ESC pressed
      - New menu with return to game (freeze time) and exit to main menu
    - Added a new openning scene MainMenuScene (File > Build Settings > Add Open Scenes and drag and drop the MainMenuScene first). This scene contains an UI > Canvas called MainMenu and 3 children: PlayButton, ExistButton and MenuText. Added MainMenuScript.cs for this menu with 2 methods: OnPlayButtonPressed() that loads the SampleScene and OnExitButtonPressed() that quits the game.
      The second menu (called EscMenuCanvas) is in SampleScene and activates when the ESC button is pressed. This canvas has 2 buttons ReturnToGameButton and MainMenuButton. Also added a scriot MenuController.cs that contains an instance of EscMenuCanvas and 3 methods. In Update() is checked if the ESC button was pressed and in this case the game freeze, in OnReturnToGameButtonPressed() the menu is again inactive and the game continues and OnMainMenuButtonPressed() that redirect to the MainMenuScene.
- Optimize the procedural generation algorithm
    - The algorithm generates a main path, then adds loops, that are paths that connect 2 rooms from the main path, as shown in the second drawing. In future the thir part will be implemented, adding separated branches for mini bosses and prizes.
    - Left the old version of the algorithm in the script, and added many utility functions, like roomExists() that checks if a room already exists, or oppositeDirection() that gives the opposite of a given direction.



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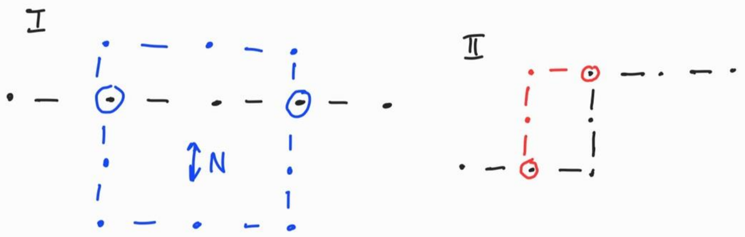
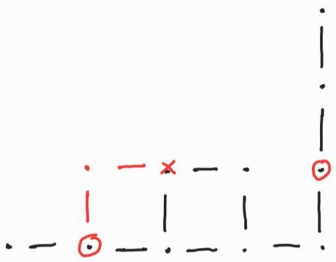
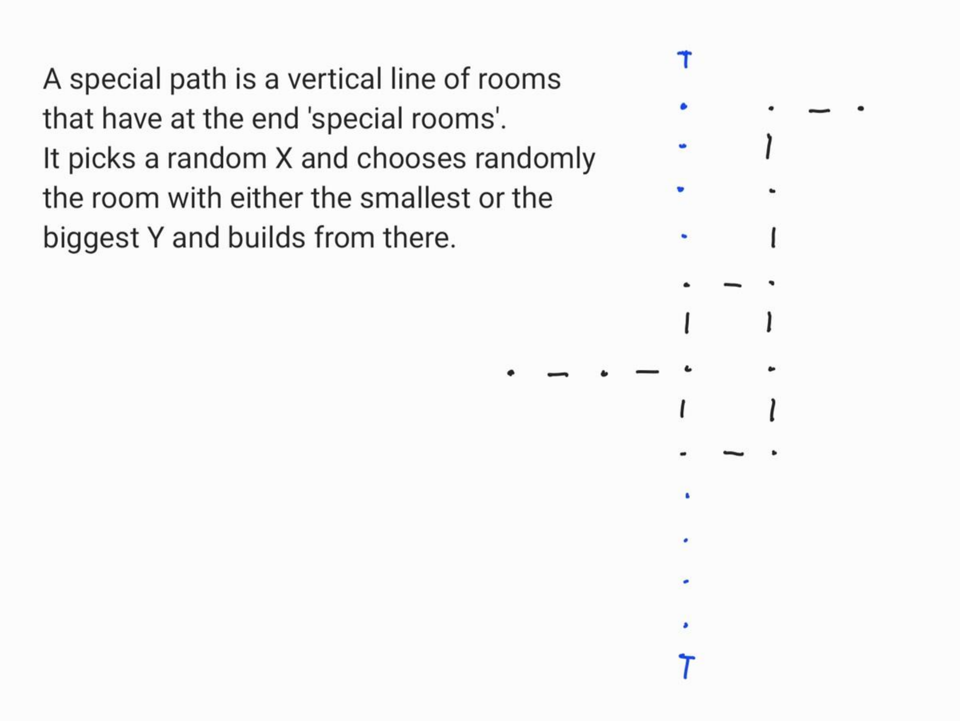


Points on the main line are chosen randomly, If they are on the same x axis or y axis then the first case is applied. N can be of any length. Otherwise, the second case is applied and the mirror of the existing path between the rooms is built.



Picks 2 random points and tries to create a new path, if the path is blocked, it stops at that point and that is the new loop.

- Two pickups:
  - 1) Increase the current health with 1
  - 2) Restore full
  - Created prefabs of PickupIncreaseHealth and PickupRestoreHealth objects and included assets
  - Added trigger events for each pickups that apply only when currentHealth is lower than maxHealth in PlayerHealthController.cs
- Third part of the generation algorithm
  - CreateSpecialPaths() is the method that generates the special paths. It uses the BuildSpecialRooms() method, which is an extension of the BuildRooms(), that adds, at the end, the special rooms provided as prefabs, also sets them in the RoomInfo for using them instead of a generic ground when the Build() method for this certain room is triggered.
  - 

    A special path is a vertical line of rooms that have at the end 'special rooms'.
    It picks a random X and chooses randomly the room with either the smallest or the biggest Y and builds from there.

- Make doors and doors system for rooms
  - Created RoomController,cs that has 3 methods: OpenDoors(), CloseDoors() and DoorsFollowCamera(). In scene, it is located in RoomGenerator Game Object
  - CloseDoors() should be called at the beginning of the game and when you visit an unexplored room with enemies.
  - OpenDoors() should be called when you killed all the enemies from the current room
  - DoorsFollowCamera() is called when camera changes its position (more exactly, is called in PlayerController.cs / MoveCamera())
  - Created Doors Game Object
  - Bonus: Solved a bug where you can hit invisible collider for breakable box

Not done yet

- Simple enemy