Assignment IP.2

New Attempt

Due Nov 14 by 5:59pm **Points** 98 **Submitting** a file upload
Available after Oct 28 at 12am

Complete development of project analyzed for **IP.1 (https://canvas.wpi.edu/courses/38844/assignments/265283)** .

IP.2 Due Monday November 14th at 5:59 PM

In the final implementation, you must ensure that:

In representing the board:

- You can simplify your rendering by showing the location of Ninja-Se by drawing the cell in Purple (#a349a4).
- When Ninja-se is holding a key you need to visually show the color of the key he holds, which you can do by drawing a small colored square on top of Nina-se [you could also just describe this information using text somewhere on your game screen]
- If Ninja-se is in a cell and he has dropped a key when picking up a new one, you do not have to visually show the key that was dropped because it is obscured by Ninja-se (naturally, should Ninja-se leave that cell, it would then be visible behind him).

The second deliverable contains a fully operational implementation of this project. I expect you will create a **React** project, in which to place your code, and you will zip up and submit the **src/** folder containing your implementation.

Configuration Definition

There are three levels that you need to provide. I am providing the following code fragments that you can use **as is** to define the configuration for each of the three levels. Simply copy these JavaScript lines of code into your Model.js or App.js (it is up to you where to place them). These are the three levels that you must support for your application.

```
export const level1 = {
  "rows" : 5,
  "columns" : 4,
  "ninjase" :  { "row":2, "column":0 },
  "walls" : [
    { "row":0, "column":3},
    { "row":1, "column":1},
    { "row":1, "column":2},
    { "row":1, "column":3},
    { "row":3, "column":0},
    { "row":3, "column":1},
    { "row":3, "column":3},
    { "row":4, "column":3},
  ],
  "doors" : [
    { "color" : "green", "row":2, "column":3},
    { "color" : "red",   "row":4, "column":1 }
  ],
  "keys": [
    { "color" : "green", "row":4, "column":0},
    { "color" : "red",   "row":0, "column":2 }
  ],
}

export const level2 = {
  "rows" : 3,
  "columns" : 4,
  "ninjase" :  { "row":1, "column":0 },
  "walls" : [],
  "doors" : [
    { "color" : "green", "row":2, "column":0},
    { "color" : "green", "row":1, "column":3},
    { "color" : "red",   "row":0, "column":0},
    { "color" : "red",   "row":2, "column":1},
    { "color" : "blue",  "row":0, "column":1},
  ],
  "keys": [
    { "color" : "green", "row":1, "column":2},
    { "color" : "green", "row":2, "column":3},
    { "color" : "red",   "row":1, "column":1},
    { "color" : "red",   "row":2, "column":2},
    { "color" : "blue",  "row":0, "column":3},
  ],
}
```

```
export const level3 = {
  "rows" : 2,
  "columns" : 5,
  "ninjase" :  { "row":0, "column":0 },
  "walls" : [ { "row":1, "column":0 } ],
  "doors" : [
    { "color" : "green",  "row":1, "column":3},
    { "color" : "red",    "row":0, "column":4},
    { "color" : "yellow", "row":1, "column":1},
    { "color" : "blue",   "row":1, "column":2}
  ],
  "keys": [
    { "color" : "red",    "row":0, "column":1},
    { "color" : "green",  "row":0, "column":2},
    { "color" : "blue",   "row":0, "column":3},
    { "color" : "yellow", "row":1, "column":4}
  ],
}
```

If you choose to come up with your own interesting or challenging level, feel free to post on discord for others to enjoy/become frustrated with

This deliverable will contain:

- Fully operational code that meets all requirements
- Successful implementation of the use cases identified for IP.1

Change Log

1. [2022-10-28] I've moved the description regarding how to draw Ninja-Se to this assignment, since it has nothing to do with IP.1
2. [2022-11-02] I added puzzle descriptions that you should use to represent the three levels. Note: if you already define your puzzles differently, then you can continue to use your own format. BUT if you switch to this standard format, then perhaps students can create and share some challenging boards for others to try!
3. [2022-11-03] You could also describe the color of the key being held by NinjaSe using an HTML element in the Boundary HTML