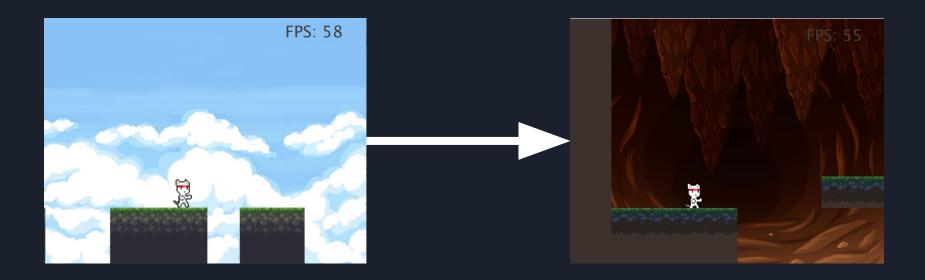# Ruins of Pythonia

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Overview

Changing levels


```
//Initializing setting
int[] field = {
    2,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,8,2,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,2,
    2,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,2,0,0,0,0,0,0,1,1,0,0,0,0,0,1,0,0,0,
    2,0,0,0,0,0,0,0,0,0,0,0,0,0,0,2,0,0,0,0,0,0,0,0,0,0,1,1,0,0,0,0,0,1,1,0,0,2,
    2,0,0,0,0,0,0,0,0,0,0,0,0,0,1,0,0,0,0,0,0,1,1,2,0,0,0,2,2,0,0,0,0,1,1,2,2,0,0,2,
    2,0,0,0,0,0,0,0,0,0,0,1,1,1,0,0,0,1,0,0,0,0,1,1,2,2,2,0,0,2,2,2,2,2,0,0,0,0,0,0,0,0,0,2,
    2,0,0,0,0,0,1,1,1,0,0,1,0,0,0,0,0,0,0,0,0,0,1,2,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,2,
    2,1,1,1,0,0,0,0,0,0,0,0,0,0,0,0,0,1,1,1,0,0,0,0,1,1,1,2,0,0,0,0,0,0,0,0,0,0,0,0,0,0,2,
    2,2,2,2,0,0,0,0,0,0,0,0,0,0,0,0,2,2,2,0,0,0,2,2,2,2,2,2,2,0,0,0,0,2,2,0,2,0,2,0,2,0,0,2
};
```

Room #	Room Id
0	Title
1	Intro
2	Puzzle1
3	MonsterFight1
4	SignRoom1
5	DANGER
6	BossFight
If you die by falling in holes or monsters, you can revive at a checkpoint as long as you solve a Python Question	

Concepts Used

1.1: Primitive data types

1.3: Booleans and if statements

1.2: Using objects

```java
public void jump() {
    if(!jumped) {
        if(!doubleJump) {
            velY = -6;
            doubleJump = true;
            currMove = 0;
        }
        else {
            velY = -6;
            jumped = true;
            currMove = 0;
        }
    }
}
```

```java
if(isDead) {
    DeathScreen dscreen = new DeathScreen();

    //the clock keeps the program running
    int clock = 0;
    int MAX_CLOCK = 100;
    while (isDead) {
        if(dscreen.isCorrect != null) {
            if (!dscreen.isCorrect) {
                System.out.println("You Lose!");
                YCWOpener.open(dscreen.question.reference);
                System.exit( status: 5579426);
            }
            else {
                this.setY(200);
                isDead = false;
            }
        }
        clock++;
        if(clock >= MAX_CLOCK){clock = 0;}
    }
    dscreen.closeWindow();
    dscreen = null;
}
```

Future Improvements

- More levels

- Player & enemy interaction

- More problems and different languages

Trivia Questions & YCWOpener Method

```java
private String[] questionList = new String[]{
        "How do you print to the console in Python?",
        "What is NOT a valid way to add 1 to a variable in Python?",
        "What is NOT a valid datatype in Python?",
        "What is the proper way to define a function in Python?",
        "What is 100%22%9?",
        "What is the proper way of doing a multi-line comment/string in Python?",
        "Which one of these is NOT a valid list method in Python?",
        "Which one of these is best to use when simulating prices at a grocery store?"
};
```

1.5: Casting
2.9: Java Math class

```java
public TriviaQuestion(){
    this.nQuestions = questionList.length;
    int randomN = (int)(Math.random() * nQuestions - 0.5);
    this.question = questionList[randomN];
    this.answers = answerList[randomN];
    this.correctAnswer = correctAnswerList[randomN];
    this.reference = referenceList[randomN];
}
```

3.4: If-else statements

```java
public class YCWOpener {
    public static void open(String reference) throws URISyntaxException, IOException {
        URI ycwuri;
        if(reference == null){
            ycwuri = new URI("https://ycwalameda.weebly.com");
        }
        else{
            ycwuri = new URI(reference);
        }
        Desktop.getDesktop().browse(ycwuri);
    }
}
```