

COMP 1451 Lab 3-b (10 points)

Take-home lab

This lab requires you to investigate a topic we have not discussed in class. Look in the Java Class Library for information about the Stack class.

Work with your refactored project from lab 3-a or use the zuul-better project.

Add this field to the Game class:

```
private Stack<Room> route;
```

Use the stack to maintain route information as the player moves from one room to another. Add this method to the Game class.

```
/** Takes the player back to the previous room, allowing the  
player to retrace the route through the game */  
private void goBack()
```

Add a “back” command to the game, allowing the player to retrace his/her route through the game in the same way that repeatedly clicking on a browser's “Back” button will take the user back to previously-visited web pages. Display information about the current room, as usual. Display an error message if the user attempts to go back past the beginning of the game.

Add a basement room to the game, with “up” and “down” directions connecting it to the lab. Test to be sure your back command works correctly.

The take-home lab is due the night before the next class. Upload it to the appropriate D2L dropbox before the midnight deadline. A suggested solution will be discussed in class and labs not already in the dropbox will not receive any points.