Programming Assessment – Comparing Json

Introduction:

MongoDB is the database tool used by Path Advisor, data in which are stored in json/bson format. In this assessment, you are given two json files extracted from the Path Advisor database. Two json files refer to the same collection but they are of different versions. Your task is to write a program in JavaScript that compares two files and print the difference out.

Problem Description:

The two json files, `nodes_new.json` and `nodes_old.json` are in different structures, so all the entries are technically different. Therefore, we have our own set of rules to define 'different'.

1. Compare the `names` field between the two files, if there is a match, check if the `coordinates` values are different while `floorId` are the same. If the above criteria are met, we say the entries are different, print out the `name` of the new entry, e.g. "new coordinates: ROOM 5591B"

2. If there is no match for `name`, i.e.` nodes_new.json` has the entry but `nodes_old.json` does not, print out the `name` of the new entry, e.g. new entry: ROOM 1410

It is known that the number of entries in nodes_new.js is always larger than the nodes_old.js.

Expected Output (Extract):

```
new coordinates: ROOM 3632
new entry: ROOM 1409
new entry: ROOM 2001B
new entry: ROOM 5594
new entry: ROOM 5590
new entry: ROOM 7014
new entry: ROOM 5613E
new entry: ROOM 5609
new entry: ROOM 5591
new entry: ROOM 5613H
new coordinates: ROOM 5485
new entry: ROOM 5613
new entry: ROOM 5613C
new coordinates: ROOM 5602
new coordinates: ROOM 5484
new entry: ROOM 5607
new entry: ROOM 5591D
new coordinates: ROOM 2007E
new entry: ROOM 5611
```

Format:

Input: Two json files (nodes_new.json, nodes_old.json) in the same directory of the program
Expected Output: Print all the data entries according to the problem description

Time Expected: 30 minutes
Required Programming Language: JavaScript
Assumed Running Environment: nodeJS
Submission method: Email the .js file to **ylils@connect.ust.hk**

Remarks:
    1.   Feel free to use any search engine or sources that you find helpful
    2.   It is okay if you are unable to finish your code.