Bazar.com Output Report

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Output

I use lumen framework on Ubuntu OS using three virtual machines, all communication between servers are based on REST:

- Front-End Server.

- Order Server.

- Catalogue Server.

Now I will explain the three main operation in this system:

- **Search** operation : which is **Topic** based search, it is just return the name of book and it's ID. It is catalogue server responsibility, so the front-end server send query to the catalogue server and then display the response, there is three possibilities are expected:
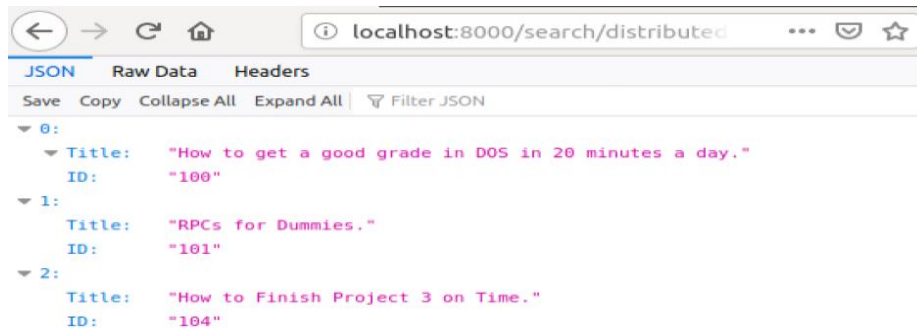
    - The topic is exist:

Figure 1: Successful search
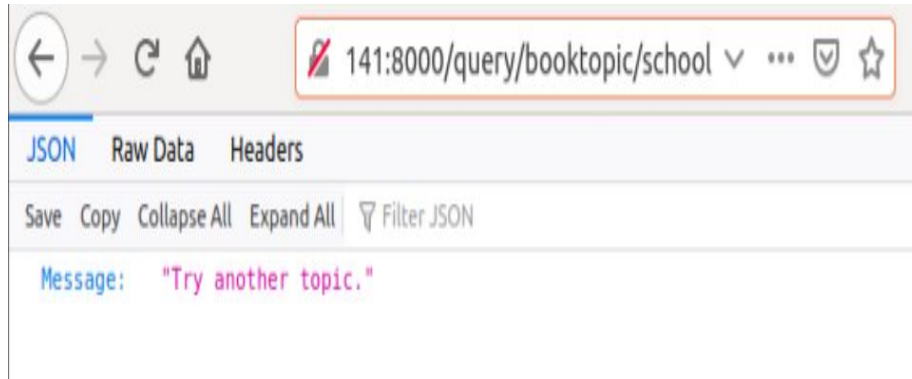
– The topic does not exist:

Figure 2: Unsuccessful search

- **Lookup** operation : which is **ID** based lookup and it is usually preceded by a search operation to know the ID of book you need so it returns the full information about the book. It is also catalogue server responsibility, so the front-end server send query to the catalogue server and then display the response, there is three possibilities are expected:
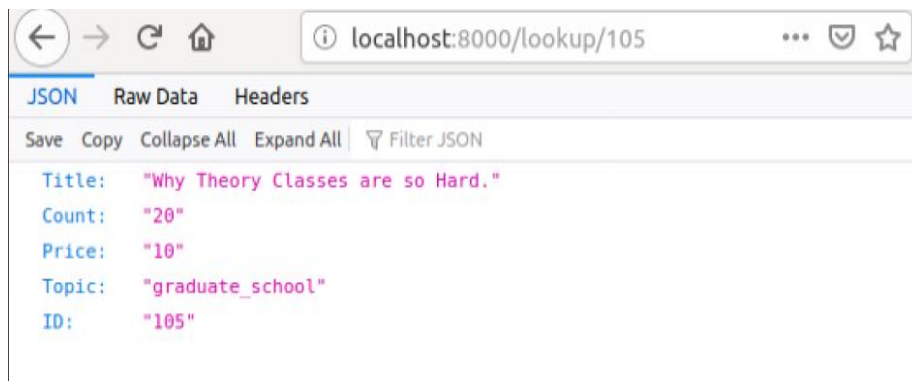
  – The book is exist:

Figure 3: Successful lookup
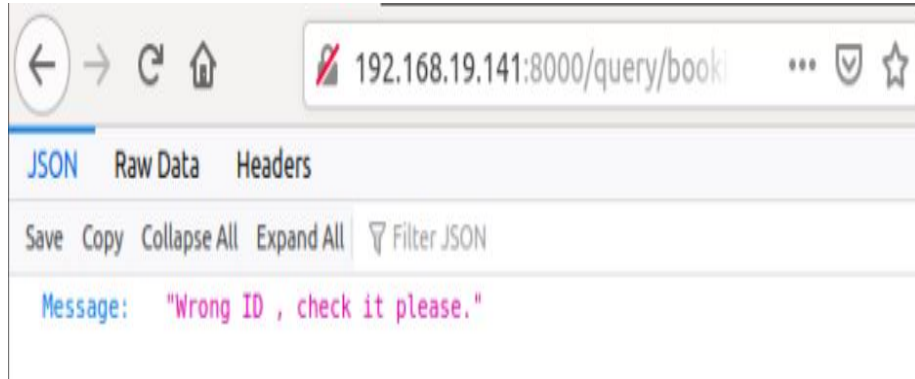
– The book does not exist:

Figure 4: Unsuccessful lookup

- **Buy** operation : which is **ID** based buy. This operation is go through all servers. Front-end send buy query to order server and then order server send two consecutive queries to catalogue server, the first is to check if the book exist and have adequate copies for purchase if the response is negative then the second query will not be applied, otherwise the number of copies will decremented in the same query and second query will send to stressing the success of process. There is four possibilities are expected:

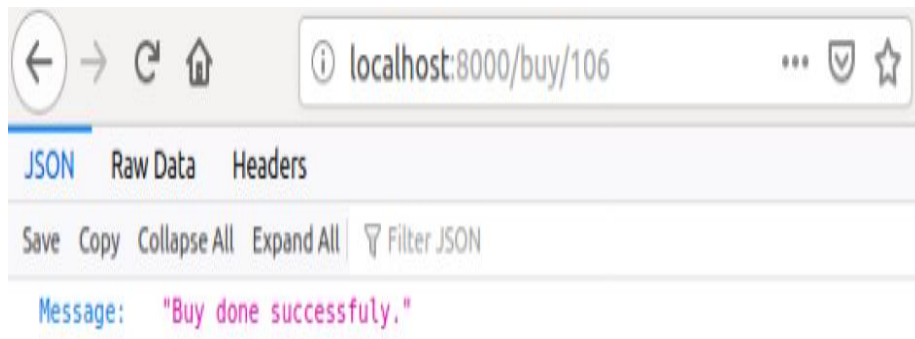 – The book is exist and there is enough copies:

Figure 5: Successful buy

– The book is exist but the copies not enough:

Figure 6: Unsuccessful buy: zero copies
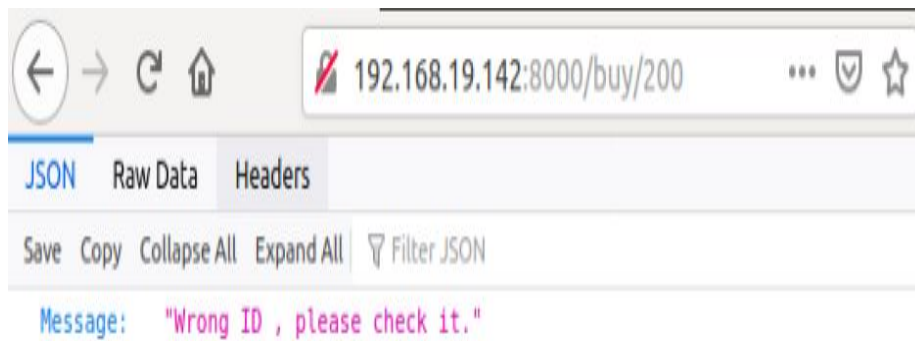
– The book does not exist:

Figure 7: Unsuccessful buy: wrong ID
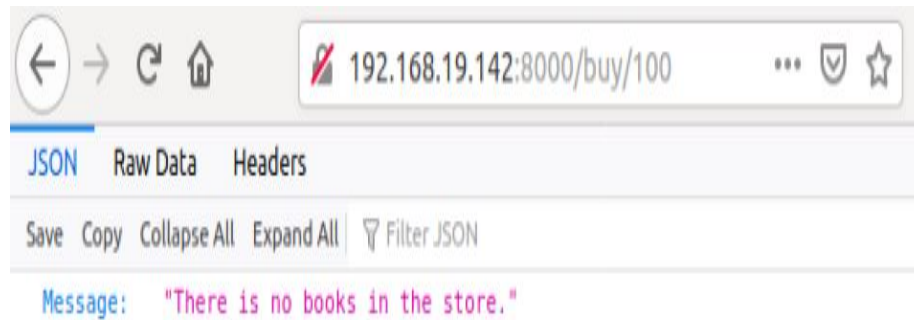
4

- No book in the catalogue. This response exist in all operations:

Figure 8: Unsuccessful operation: no books