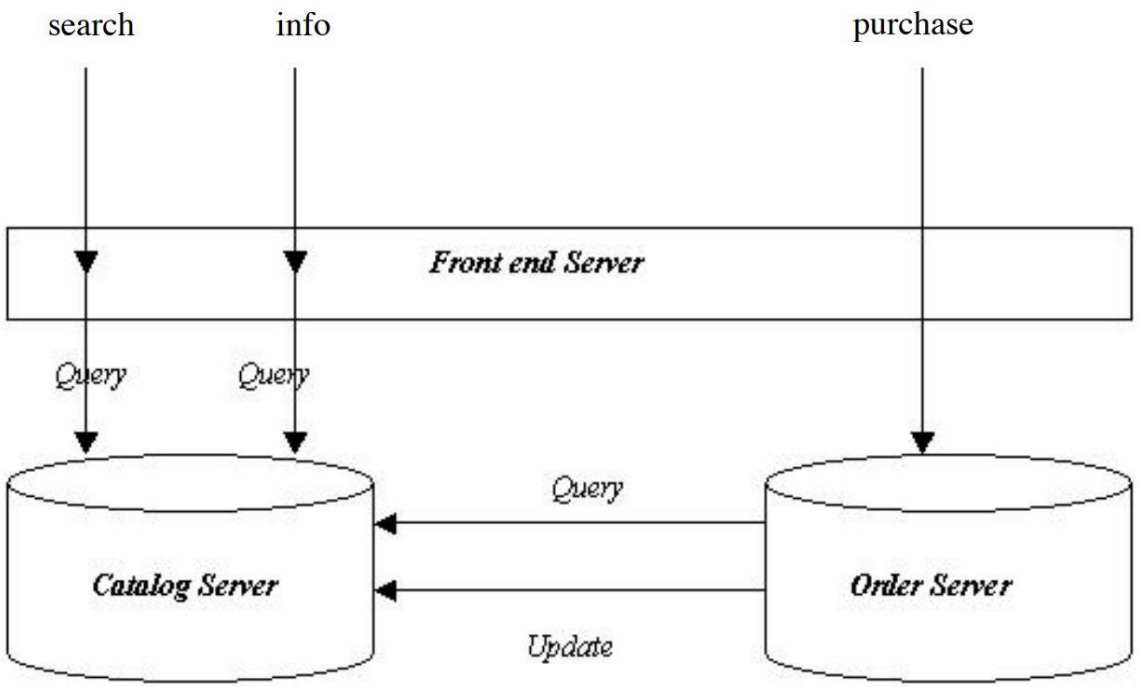
Bazar.com

A Multi-tier Online Book Store

DOS PROJECT - LAB 1

WALA JANAJREH

System Representation



Servers implemented :

- Catalog server
- Order server
- Front end server

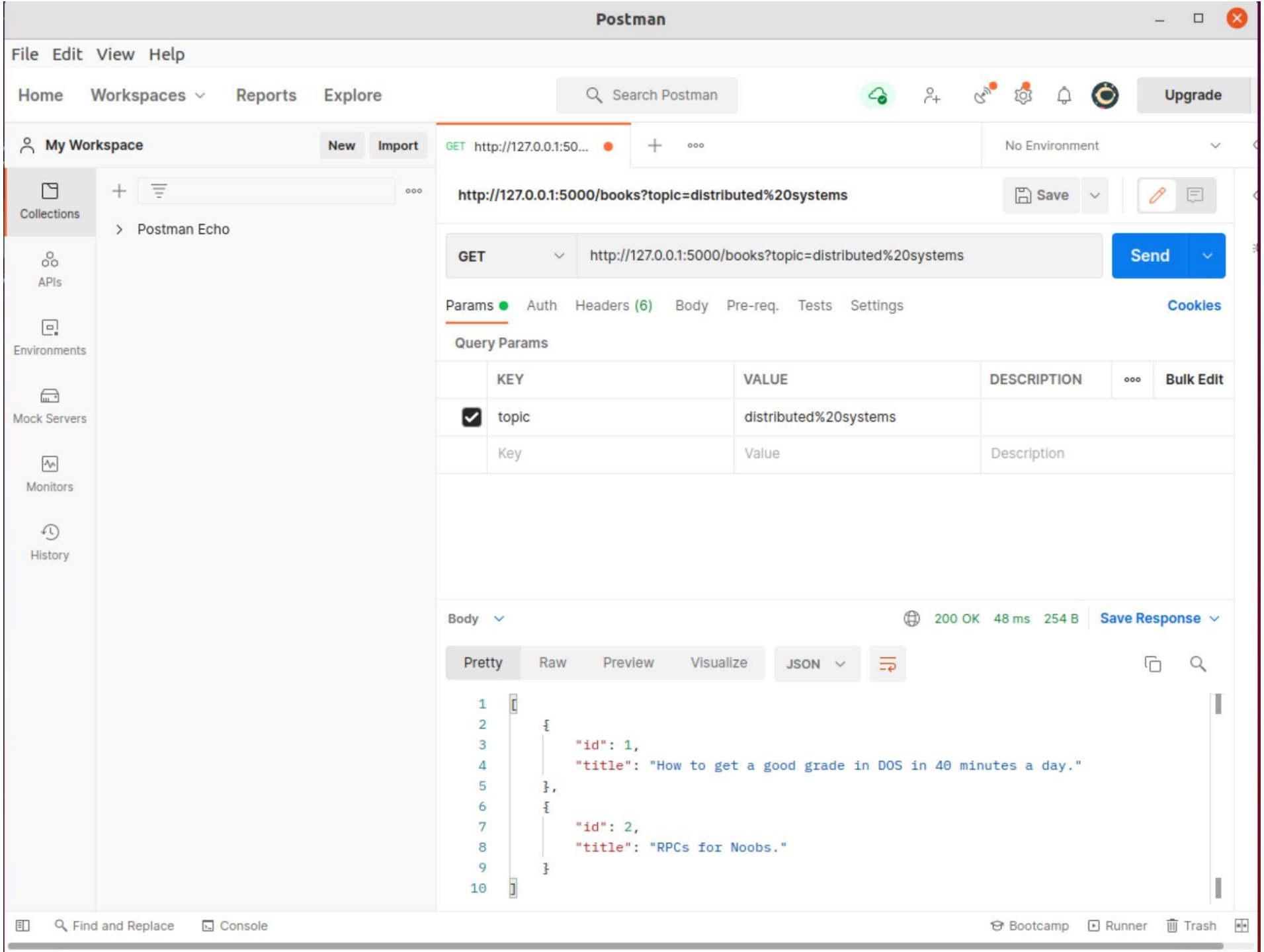
Catalog server

The catalog server keeps the books available in a json file

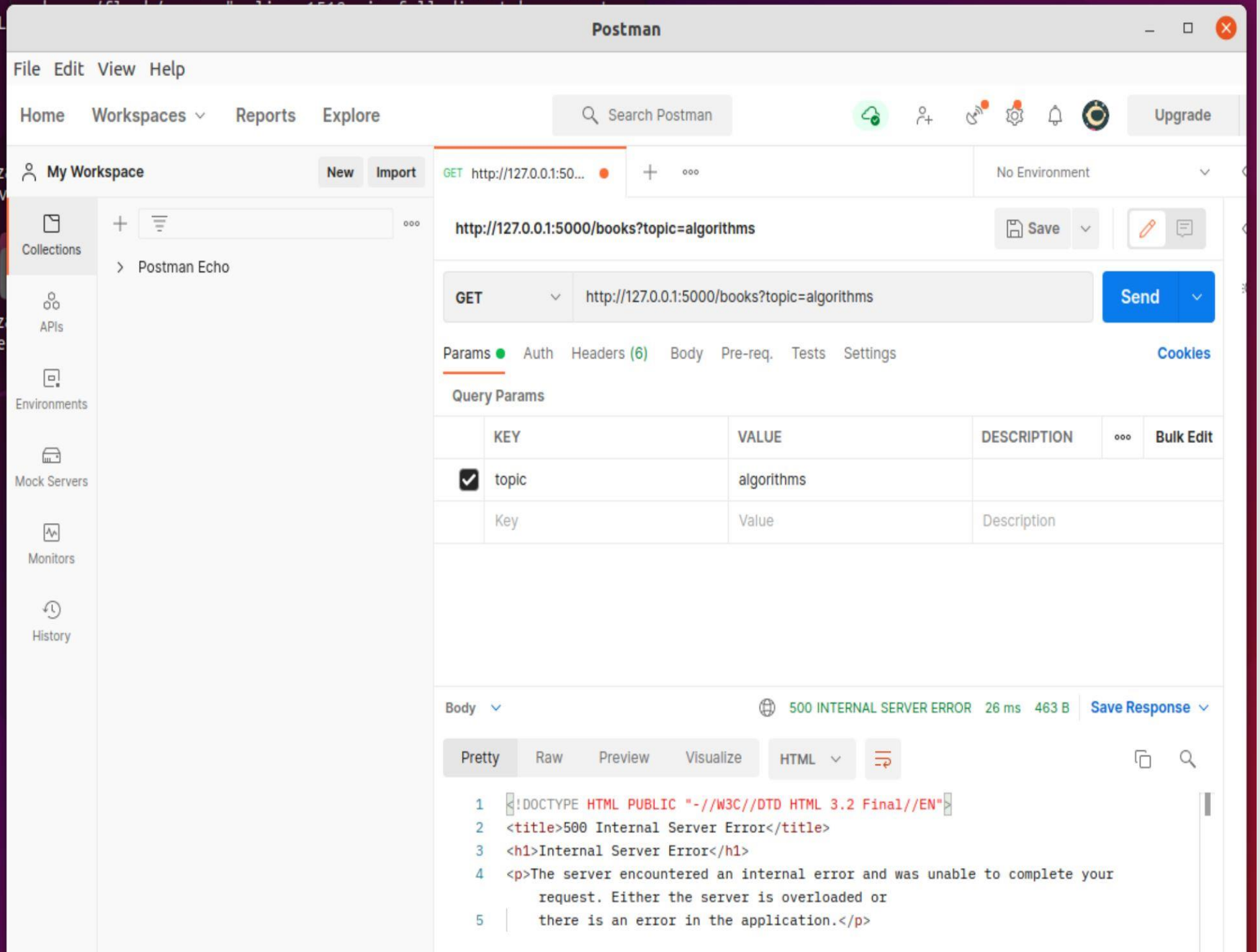
Each book is stored as an entitiy (id,title,topic,quantity ,price)

The catalog server supports two operations: query and update.

Two types of queries are supported: query-by-topic and query-by-id. In the first case, a topic is specified and the server returns all matching entries. In the second case, an item id is specified and all relevant details are returned.



Testing the get by topic search using postman case1 : ok ,200

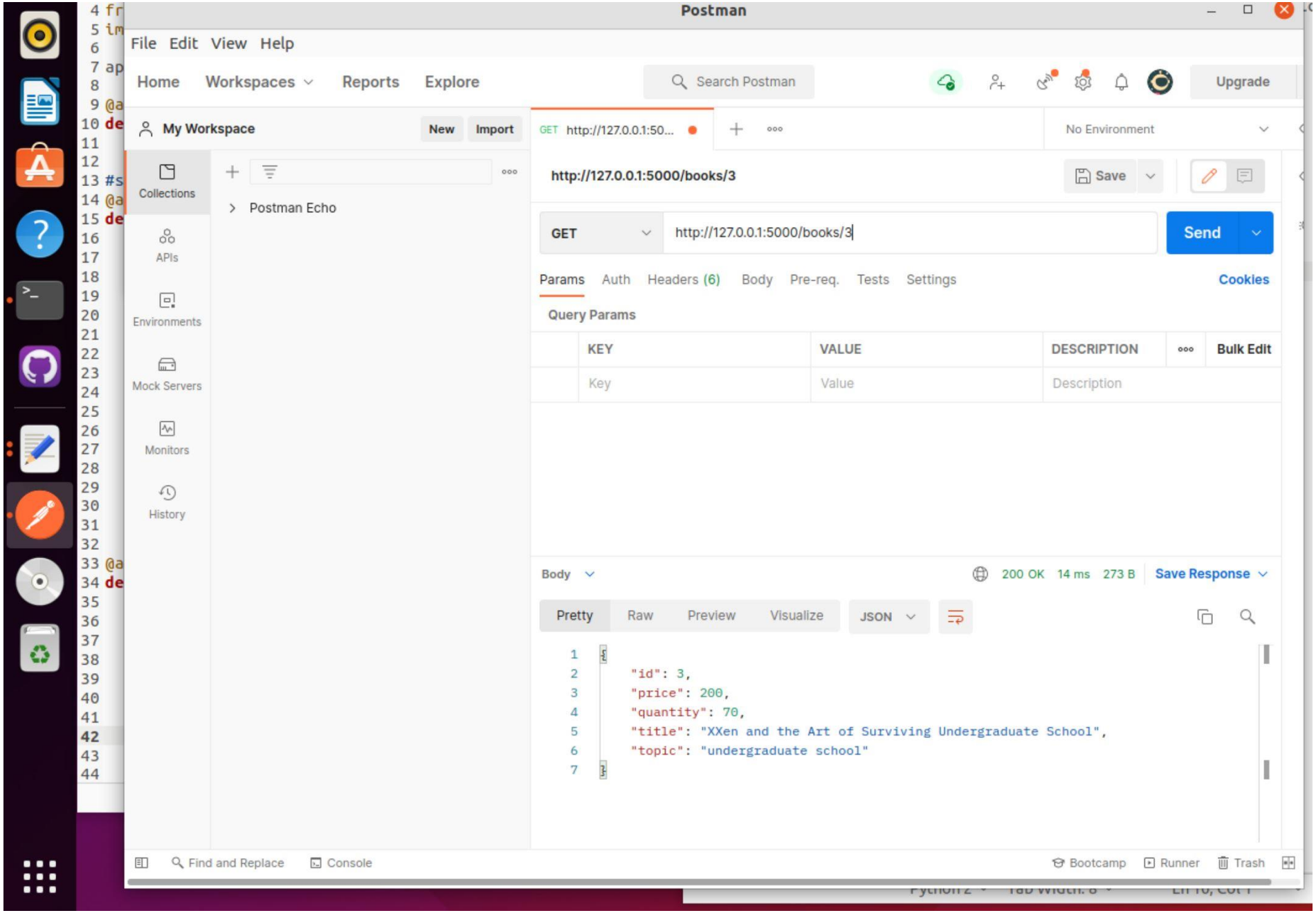


CASE2 :

searching for a non-existing topic such as algorithms

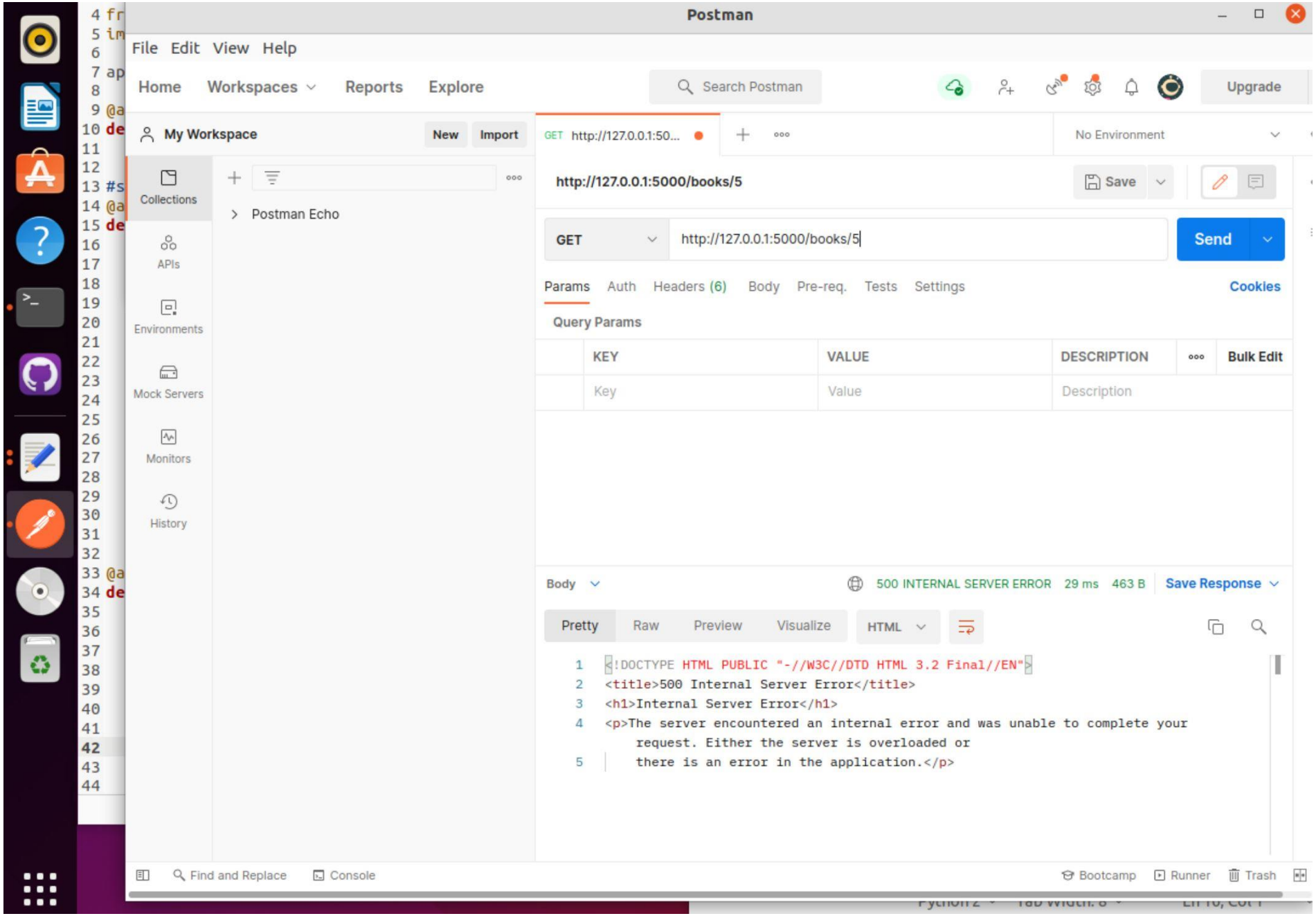
SEARCHING BY ID

CASE 1 : EXISTING ID



SEARCHING BY ID

CASE 2 : NON-EXISTING ID



Order Server

It supports a single operation: purchase(item_number).

Upon receiving a purchase request, the order server must first verify that the item is in stock by querying the catalog server and then decrement the number of items in stock by one. The purchase request can fail if the item is out of stock.

Front End Server

The front-end server handles the client requests then returns the response with a friendly format instead of the received JSON response

It supports three operations:

- search(topic
- info(item_number)
- purchase(item_number)

Virtual machines

I created 3 virtual machine instances

each machine runs one of the servers

Then used the ip addresses in the GET, POST, PUT URLs