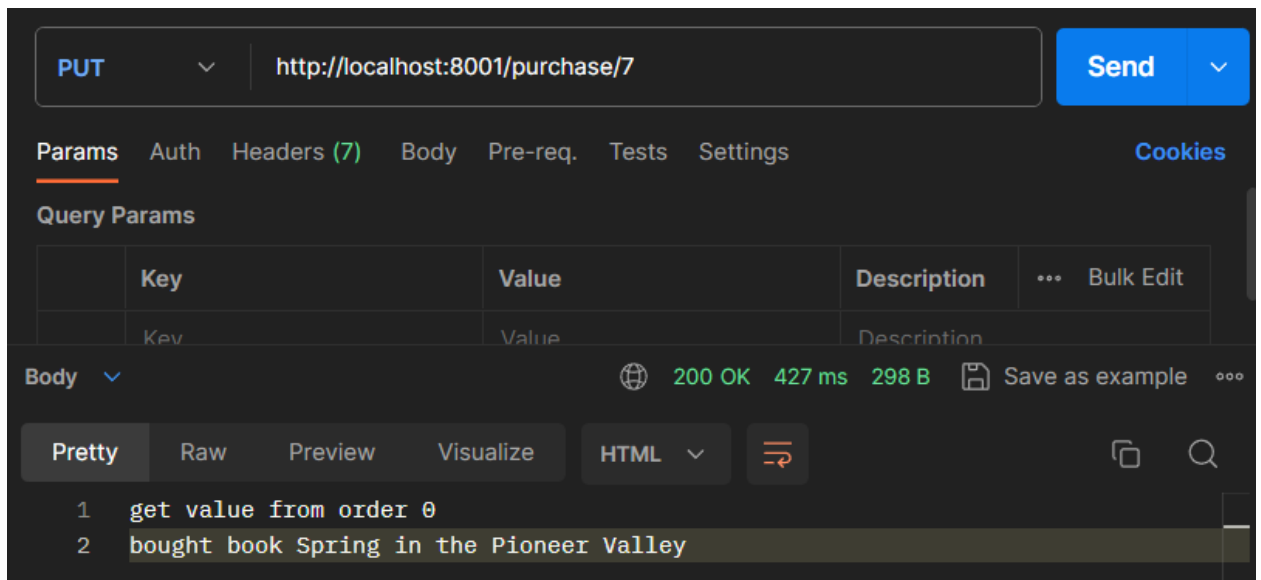


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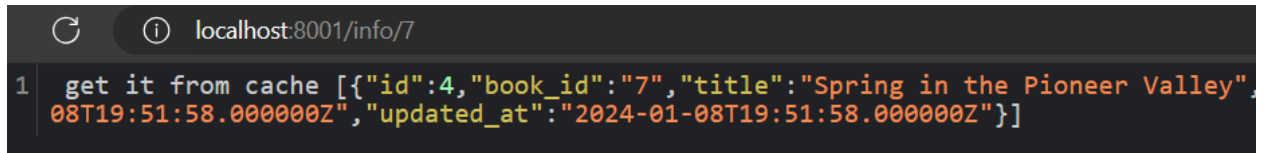
1-



The average response time for buy book operation about 430 ms, the cache does not help in this operation; because this operation does not depend on it.

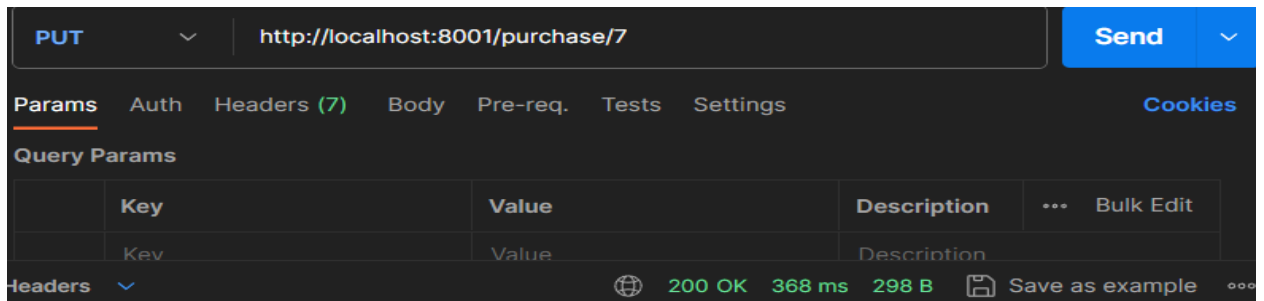
2-

In the first we have a book id: 7 and it exists in cache

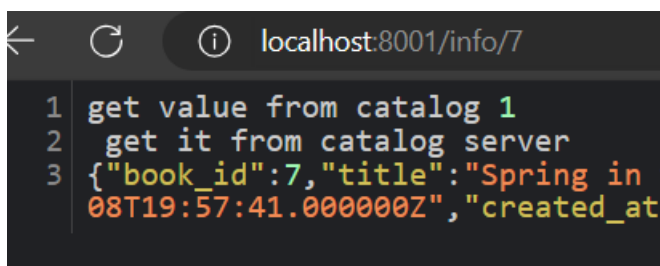


```
1 get it from cache [{"id":4,"book_id":"7","title":"Spring in the Pioneer Valley",
08T19:51:58.000000Z","updated_at":"2024-01-08T19:51:58.000000Z"}]
```

After that we make a purchase request:



Now the after order server sent invalidate to frontend, this book will be removed from cache, so when make a new request it will get from catalog not cache.



```
1 get value from catalog 1
2 get it from catalog server
3 {"book_id":7,"title":"Spring in t
08T19:57:41.000000Z","created_at"
```

There are overheads in consistency operations from requests that catalog server send them to front end and another catalog server.