

FANDANGO SIMULATION

Group 1

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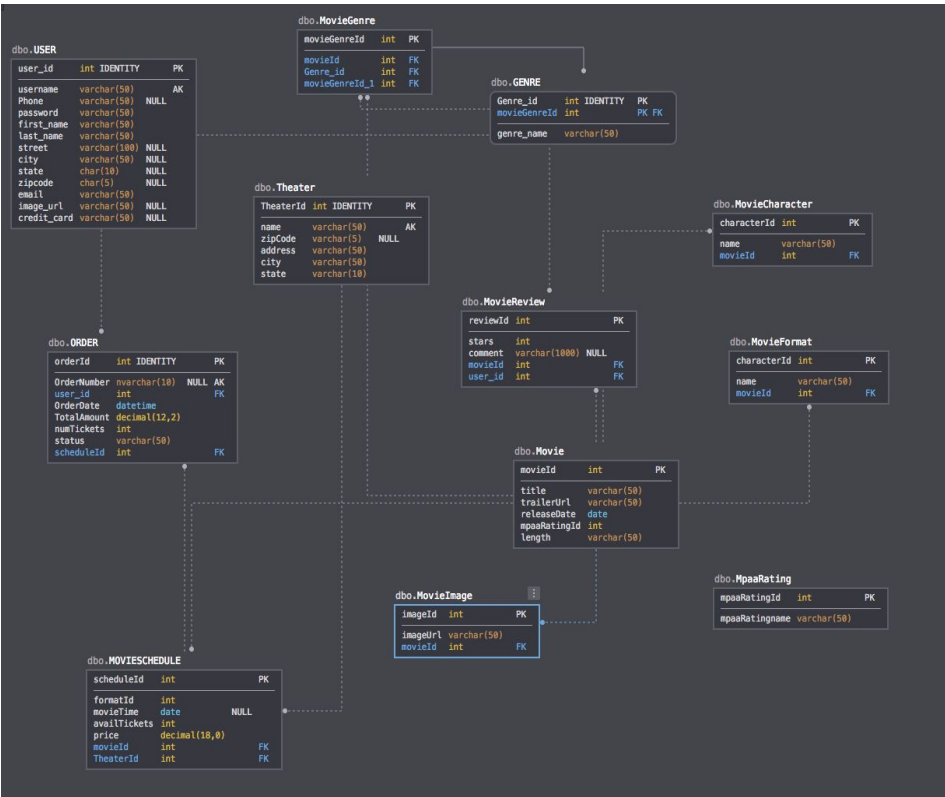
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DATABASE SCHEMA DESIGN

MySql Database

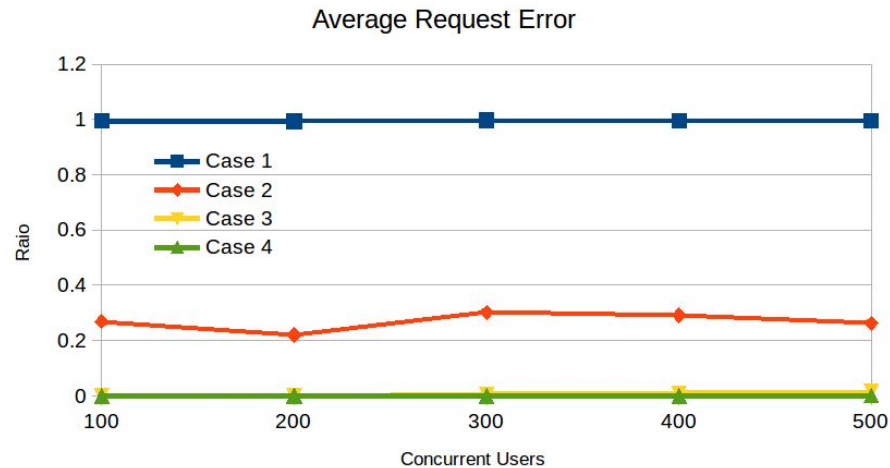
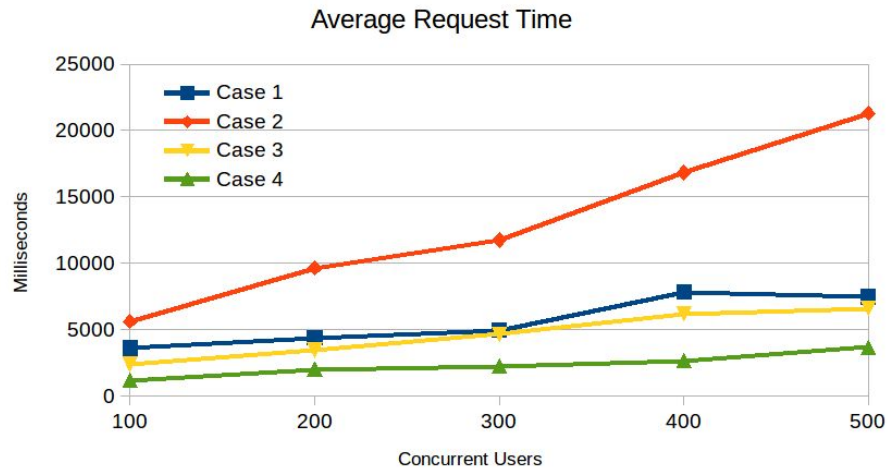


MongoDB (session, log)

```
{
  "_id": "3ilfXNGdNMSu4R4p-pPI63AFx0mvzErg",
  "session": "{ \"cookie\":",
  { \"originalMaxAge\": null, \"expires\": null, \"httpOnly\": true, \"path\": \"\", \"MKFlash\": {} }",
  "expires": {
    "$date": "2018-05-09T07:05:22.180Z"
  }
}
```

```
{
  "_id": {
    "$oid": "5ae8272daf09e0db2acfa59e"
  },
  "path": "/orders/admin",
  "date": "2018-05-01T08:37:01.062Z",
  "user": {
    "userId": 259,
    "username": "tester3",
    "firstName": "Tester",
    "lastName": "Three",
    "street": null,
    "city": null,
    "state": null,
    "zipcode": null,
    "email": "t@t3.com",
    "phone": null,
    "imageUrl": null,
    "role": 3,
    "cardNum": null,
    "cardCvv": null,
    "cardExpire": null
  }
}
```

PERFORMANCE COMPARISON GRAPH



Case 1: Single Instance, no connection pool, no caching

Case 2: Single Instance, connection pool, no caching

Case 3: Single Instance, connection pool, caching

Case 4: Two Instances, connection, pool, caching

CLIENT SERVER LOAD BALANCING TEST

Result Table & Graph

Concu rrent Users	100	200	300	400	500
Ave (1 server) ms	1836	2463	3131	4040	5323
Ave (2 server) ms	1615	2134	2841	3807	4936

Response Time Graph

