

## Project 4 Task 2 – Currency Converter

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Description:

My application takes converts the currency by prompting user to input a number, choose the from and to currency and give back the converting result.

Here is how my application meets the task requirements. On the other hand, you can also login by:

Id: jzhan1

Pw: 1a2b1c4d

To view the dashboard generated from MongoDB.

### 1. Log useful information

The log data contains information such as search amount, search from currency, search to currency, rates for from and to currency based on Euro, visited model type, time.

### 2. Store the log information in a database

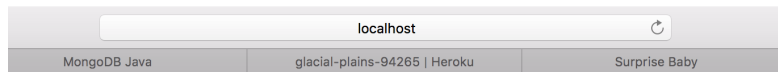
This is the screenshot from my mongodb shell query.

```
*/
public class MongoDB {

    //db.MyApp.insert( { searchAmount: 10, searchFrom: "USD", searchTo: "CNY", fromRate:"1.2", toRate: "0.6", :
    public void insert(String searchAmount, String searchFrom, String searchTo, String fromRate,
        String toRate, String searchResult, String phoneModel, String date) {
        BasicDBObject appInfo = new BasicDBObject();
        appInfo.put("searchAmount", Double.parseDouble(searchAmount));
        appInfo.put("searchFrom", searchFrom);
        appInfo.put("searchTo", searchTo);
        appInfo.put("fromRate", fromRate);
        appInfo.put("toRate", toRate);
        appInfo.put("searchResult", Double.parseDouble(searchResult));
        appInfo.put("phoneModel", phoneModel);
        appInfo.put("time", date);

        MongoClientURI uri = new MongoClientURI("mongodb://jzhan1:1a2b1c4d@ds139937.mlab.com:39937/ds_pro4");
        MongoClient client = new MongoClient(uri);
        DB db = client.getDB(uri.getDatabase());
        DBCollection myApp = db.getCollection("MyApp");
        myApp.insert(appInfo);
        client.close();
    }
}
```

### 3.1. A unique URL addresses a web interface dashboard for the web service



#####

### Currency converter

#####

Amount

From  To

#####

### Dashboard Login

#####

ID:(jzhan1)

Password: (1a2b1c4d)

## 3.2. The dashboard displays at least 5

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### MyApp Log Analysis

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---

Number of records in the database:

18

---

Last time request:

Fri Nov 11 21:04:08 EST 2016

---

Number of records convert to USD:

14

---

Number of convert amount > 10:

3

---

Number of visits from :

phone: 7  
browser:11

## 3.3. The dashboard displays at full logs

All records in the database:

```
{ "_id": { "$oid": "582631c5b014a20eba750971" }, "searchAmount": 5.0, "searchFrom": "USD", "searchTo": "USD", "fromRate": "1.0904", "toRate": "1.0904", "searchResult": 5.0, "phoneModel": "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_11_6) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/54.0.2840.71 Safari/537.36", "time": "Fri Nov 11 16:01:57 EST 2016" }
{ "_id": { "$oid": "58263233b014a20eba750973" }, "searchAmount": 6.0, "searchFrom": "USD", "searchTo": "USD", "fromRate": "1.0904", "toRate": "1.0904", "searchResult": 6.0, "phoneModel": "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_11_6) AppleWebKit/602.2.14 (KHTML, like Gecko) Version/10.0.1 Safari/602.2.14", "time": "Fri Nov 11 16:03:47 EST 2016" }
{ "_id": { "$oid": "58263259a014a20eba750974" }, "searchAmount": 5.0, "searchFrom": "USD", "searchTo": "USD", "fromRate": "1.0904", "toRate": "1.0904", "searchResult": 5.0, "phoneModel": "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_11_6) AppleWebKit/602.2.14 (KHTML, like Gecko) Version/10.0.1 Safari/602.2.14", "time": "Fri Nov 11 16:04:25 EST 2016" }
{ "_id": { "$oid": "582632b2b014a20eba750975" }, "searchAmount": 5.0, "searchFrom": "USD", "searchTo": "USD", "fromRate": "1.0904", "toRate": "1.0904", "searchResult": 5.0, "phoneModel": "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_11_6) AppleWebKit/602.2.14 (KHTML, like Gecko) Version/10.0.1 Safari/602.2.14", "time": "Fri Nov 11 16:05:54 EST 2016" }
{ "_id": { "$oid": "58263320b014a20eba750976" }, "searchAmount": 7.0, "searchFrom": "USD", "searchTo": "USD", "fromRate": "1.0904", "toRate": "1.0904", "searchResult": 7.0, "phoneModel": "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_11_6) AppleWebKit/602.2.14 (KHTML, like Gecko) Version/10.0.1 Safari/602.2.14", "time": "Fri Nov 11 16:07:44 EST 2016" }
{ "_id": { "$oid": "58263333b014a20eba750977" }, "searchAmount": 4.0, "searchFrom": "USD", "searchTo": "HKD", "fromRate": "1.0904", "toRate": "8.4593", "searchResult": 31.031914893617024, "phoneModel": "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_11_6) AppleWebKit/602.2.14 (KHTML, like Gecko) Version/10.0.1 Safari/602.2.14", "time": "Fri Nov 11 16:08:03 EST 2016" }
{ "_id": { "$oid": "582659ec501cca000441cha2" }, "searchAmount": 5.0, "searchFrom": "USD", "searchTo": "AUD", "fromRate": "1.0904", "toRate": "1.4338", "searchResult": 6.574651504035216, "phoneModel": "Dalvik/2.1.0 (Linux; U; Android 7.1.1; Android SDK built for x86_64 Build/NPF10D)", "time": "Fri Nov 11 23:53:16 UTC 2016" }
{ "_id": { "$oid": "58265af4501cca000441eba4" }, "searchAmount": 4.0, "searchFrom": "USD", "searchTo": "USD", "fromRate": "1.0904", "toRate": "1.0904", "searchResult": 4.0, "phoneModel": "Dalvik/2.1.0 (Linux; U; Android 7.1.1; Android SDK built for x86_64 Build/NPF10D)", "time": "Fri Nov 11 23:57:40 UTC 2016" }
{ "_id": { "$oid": "58265c0bd5c22000049db558" }, "searchAmount": 5.0, "searchFrom": "USD", "searchTo": "USD", "fromRate": "1.0904", "toRate": "1.0904", "searchResult": 5.0, "phoneModel": "Dalvik/2.1.0 (Linux; U; Android 7.1.1; Android SDK built for x86_64 Build/NPF10D)", "time": "Sat Nov 12 00:02:18 UTC 2016" }
{ "_id": { "$oid": "58265ca5b014a20eba750978" }, "searchAmount": 5.0, "searchFrom": "USD", "searchTo": "USD", "fromRate": "1.0904", "toRate": "1.0904", "searchResult": 5.0, "phoneModel": "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_11_6) AppleWebKit/602.2.14 (KHTML, like Gecko) Version/10.0.1 Safari/602.2.14", "time": "Fri Nov 11 19:04:53 EST 2016" }
{ "_id": { "$oid": "58265cafb014a20eba750979" }, "searchAmount": 5.0, "searchFrom": "USD", "searchTo": "USD", "fromRate": "1.0904", "toRate": "1.0904", "searchResult": 5.0, "phoneModel": "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_11_6) AppleWebKit/602.2.14 (KHTML, like Gecko) Version/10.0.1 Safari/602.2.14", "time": "Fri Nov 11 19:05:03 EST 2016" }
{ "_id": { "$oid": "58265d22b014a20eba750980" }, "searchAmount": 4.0, "searchFrom": "USD", "searchTo": "USD", "fromRate": "1.0904", "toRate": "1.0904", "searchResult": 4.0, "phoneModel": "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_11_6) AppleWebKit/602.2.14 (KHTML, like Gecko) Version/10.0.1 Safari/602.2.14", "time": "Fri Nov 11 19:06:58 EST 2016" }
{ "_id": { "$oid": "58265d94f313d200040643b0" }, "searchAmount": 5.0, "searchFrom": "USD", "searchTo": "USD", "fromRate": "1.0904", "toRate": "1.0904", "searchResult": 5.0, "phoneModel": "Dalvik/2.1.0 (Linux; U; Android 7.1.1; Android SDK built for x86_64 Build/NPF10D)", "time": "Sat Nov 12 00:08:52 UTC 2016" }
{ "_id": { "$oid": "58265e42a1697800040a28b" }, "searchAmount": 5.0, "searchFrom": "USD", "searchTo": "USD", "fromRate": "1.0904", "toRate": "1.0904", "searchResult": 5.0, "phoneModel": "Dalvik/2.1.0 (Linux; U; Android 7.1.1; Android SDK built for x86_64 Build/NPF10D)", "time": "Sat Nov 12 00:11:46 UTC 2016" }
{ "_id": { "$oid": "582676e86e63450004dc4c" }, "searchAmount": 100.0, "searchFrom": "CNY", "searchTo": "USD", "fromRate": "7.4198", "toRate": "1.0904", "searchResult": 14.695813903339713, "phoneModel": "Dalvik/2.1.0 (Linux; U; Android 7.1.1; Android SDK built for x86_64 Build/NPF10D)", "time": "Sat Nov 12 01:56:56 UTC 2016" }
{ "_id": { "$oid": "582676e86e63450004dc4c" }, "searchAmount": 100.0, "searchFrom": "CNY", "searchTo": "USD", "fromRate": "7.4198", "toRate": "1.0904", "searchResult": 14.695813903339713, "phoneModel": "Dalvik/2.1.0 (Linux; U; Android 7.1.1; Android SDK built for x86_64 Build/NPF10D)", "time": "Sat Nov 12 01:56:56 UTC 2016" }
{ "_id": { "$oid": "5826788fb014a20eba750981" }, "searchAmount": 5.0, "searchFrom": "CNY", "searchTo": "USD", "fromRate": "7.4198", "toRate": "1.0904", "searchResult": 0.7347906951669856, "phoneModel": "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_11_6) AppleWebKit/602.2.14 (KHTML, like Gecko) Version/10.0.1 Safari/602.2.14", "time": "Fri Nov 11 21:03:59 EST 2016" }
{ "_id": { "$oid": "58267898b014a20eba750982" }, "searchAmount": 50.0, "searchFrom": "CNY", "searchTo": "USD", "fromRate": "7.4198", "toRate": "1.0904", "searchResult": 7.347906951669857, "phoneModel": "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_11_6) AppleWebKit/602.2.14 (KHTML, like Gecko) Version/10.0.1 Safari/602.2.14", "time": "Fri Nov 11 21:04:08 EST 2016" }
```

4. Deploy the web service to Heroku

Deploy to Heroku. url is <https://glacial-plains-94265.herokuapp.com>

<div><div></div><div>glacial-plains-94265.herokuapp.com</div><div></div></div>			
ava	glacial-plains-94265   Heroku	Surprise Baby	GlassFish Server

#####

Currency converter

#####

Amount

From 

CNY

 To 

USD

Convert

#####

Dashboard Login

#####

ID:(jzhan1)

Password: (1a2b1c4d)

Login