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CONTACTS-API DOCUMENTATION

1. OVERVIEW

Contacts-API is a Restful API written in JAVA. Front-end web and mobile apps can use this service to manage contact records. This includes creation, retrieval, update and deletion of contacts

2. DESCRIPTION

IT IS LIVE:

I have the service running on Pivotal Web Services:

https://mohanish-contacts-api.cfapps.io/swagger-ui.html#/

Please follow the link if you would like to test it out

Use the end points under the contact-management-controller to test the various operations. Please find the documentation under usage to know more

TECHNOLOGIES USED:

- Spring to develop the Restful API back-end
- MongoDB as the persistence layer
- Pivotal Web Services for cloud deployment
- Swagger as a landing page for API Tooling
- Gradle for package management
- Developed using IntelliJ & JAVA 8

3. USAGE

ASSUMPTIONS:

- To keep it simple, the assumption is that all contacts will have a unique “name” field
- “name” is the only required field
- Trying to add a contact that already exists will return an error message
- All successful operations will return a success message
- Update operation will update the fields that have been included in the Data Params while preserving the existing ones

- All unassigned fields will be assigned to be null by default

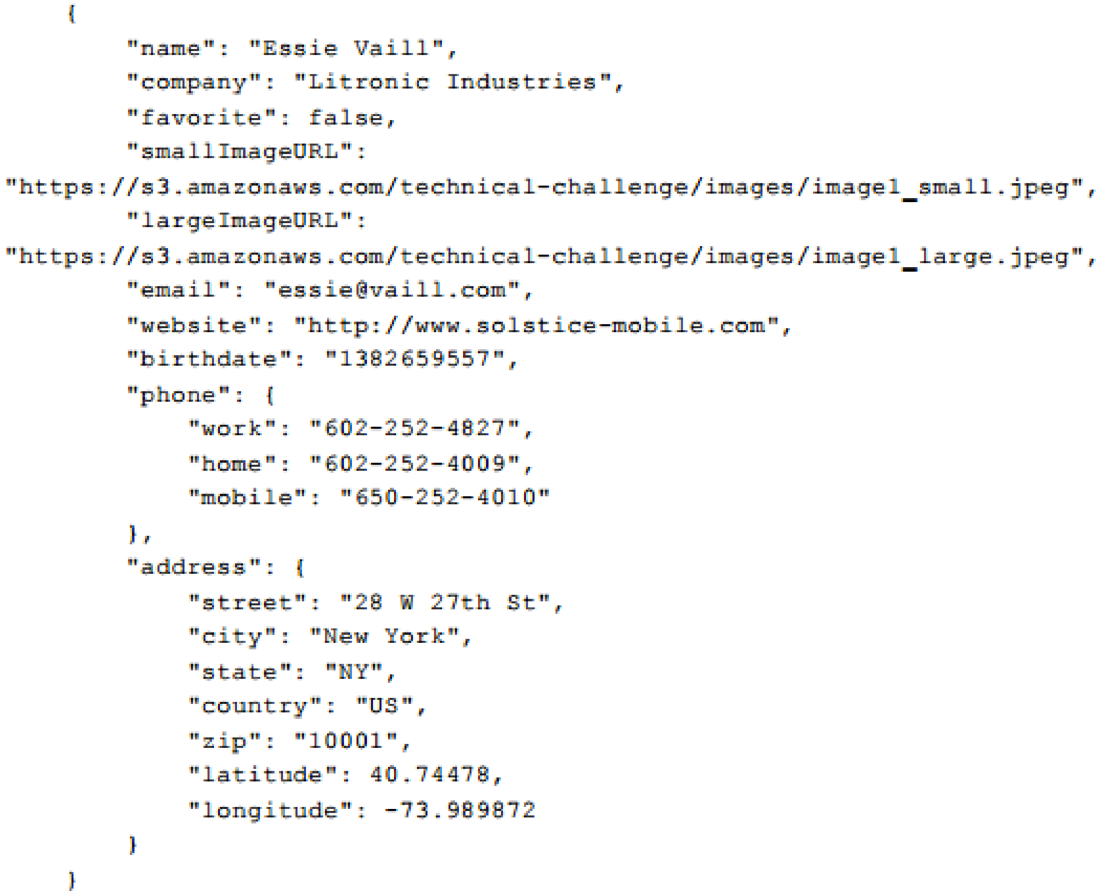
END POINTS:

- **Create contact:**

  URL: /createContact

  METHOD: POST

  Data Params:



```
      {
          "name": "Essie Vaill",
          "company": "Litronic Industries",
          "favorite": false,
          "smallImageURL":
"https://s3.amazonaws.com/technical-challenge/images/image1_small.jpeg",
          "largeImageURL":
"https://s3.amazonaws.com/technical-challenge/images/image1_large.jpeg",
          "email": "essie@vaill.com",
          "website": "http://www.solstice-mobile.com",
          "birthdate": "1382659557",
          "phone": {
              "work": "602-252-4827",
              "home": "602-252-4009",
              "mobile": "650-252-4010"
          },
          "address": {
              "street": "28 W 27th St",
              "city": "New York",
              "state": "NY",
              "country": "US",
              "zip": "10001",
              "latitude": 40.74478,
              "longitude": -73.989872
          }
      }
```

  Note:

  Required Field: “name”

- **Delete contact:**

  URL: /deleteContact

  METHOD: DELETE

  URL Params: name=[string] (Required)

Example: /deleteContact?name=John Doe

- **Retrieve contact:**

  URL: /retrieveContact

  METHOD: GET

  URL Params: name=[string] (Required)

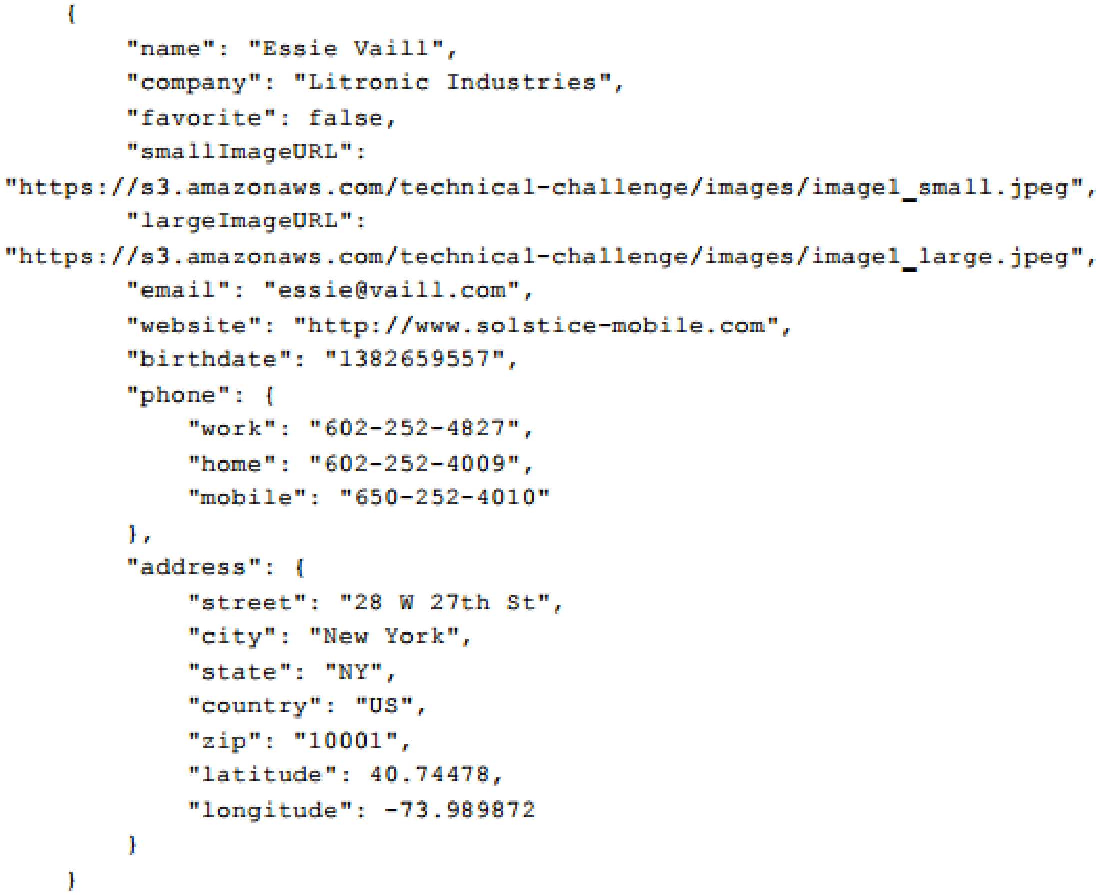
  Example: /retrieveContact?name=John Doe

- **Update contact:**

  URL: /updateContact

  METHOD: POST

  Data Params:



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      {
          "name": "Essie Vaill",
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          "favorite": false,
          "smallImageURL":
  "https://s3.amazonaws.com/technical-challenge/images/image1_small.jpeg",
          "largeImageURL":
  "https://s3.amazonaws.com/technical-challenge/images/image1_large.jpeg",
          "email": "essie@vaill.com",
          "website": "http://www.solstice-mobile.com",
          "birthdate": "1382659557",
          "phone": {
              "work": "602-252-4827",
              "home": "602-252-4009",
              "mobile": "650-252-4010"
          },
          "address": {
              "street": "28 W 27th St",
              "city": "New York",
              "state": "NY",
              "country": "US",
              "zip": "10001",
              "latitude": 40.74478,
              "longitude": -73.989872
          }
      }
```

Note:

Required Field: “name”

4. PROJECT MANAGEMENT

You can find the project here:

https://www.dropbox.com/sh/y6i4olh7kq7h0s5/AACk0asQRs8XYjVTfv8NcY4ra?dl=0

There are a few ways you can explore and test this project:

A. As mentioned above, this code is live on PWS. Follow the link above to check it out

B. You should have a zip file named 'mohanish-contacts-api.zip' along with this read-me. It is a zip of my entire project. It also contains a JAR artifact that is currently running on the PWS. It is located under:

mohanish-contacts-api/build/libs/mohanish-contacts-api-0.0.1-SNAPSHOT.jar

C. Importing the project and running locally:

1. If you decide to unzip and import my project, you should be able to do that easily by just importing the 'build.gradle' file. That should resolve all your dependencies for you (Assuming you import it using an IDE like IntelliJ, Eclipse etc.)
2. I am using MongoDB as my persistence layer, so if you decide to run the project locally, you will need to run the Mongo Server. If you dont already have mongo installed, please follow the link to get mongo server started: https://docs.mongodb.com/manual/installation/
3. Make sure you have mongo installed properly and have the mongod service running. You will also have to create a directory for your data store (It is usually /data/db)
4. I am using Project Lombok to make my life a bit easier. It should automatically be included in the gradle file. However, depending on your IDE, you might need a plugin to make it work properly. You will also have to enable Annotation Processing for your IDE (For IntelliJ you can do that by going to Preferences -> Project Settings -> Compiler -> Annotation Processors)
5. Once everything is set up, you could run the project by kicking off:

   mohanish-contacts-api/src/main/java/com/mohanish/contacts_api/mohanishcontactsapi/MohanishContactsApiApplication.java
6. You can use a browser and go to: localhost:8080 (or if defined otherwise) with the appropriate end point.

7. Or you could use something like POSTMAN to play with the API

5. FUTURE TODO

Things I plan to do in the immediate future that I did not get to:

1. Returning appropriate error codes with correct http status
2. Providing complete unit test coverage for the code

6. TROUBLESHOOTING

Please feel free to contact me if you have an issue using this API. I would be more than happy to help

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