**Mini Project on Microservices**

The given project is about user and their contact management. One user may have more than one contact with unique tag name.You should create the following microservices to fulfil the requirements of the application:

1. user-service:
   1. It maintains the user details as per the given template:

**public** **class** User {

**private** **int** userId;

**private** String userName;

}

* 1. You should be able to:
     1. Create new user
     2. Find a user
     3. List all the users
     4. Remove a User
     5. Update a User

1. contact-service
   1. It maintains the contacts as per the given template:

**public** **class** Contact {

**private** **int** contactId;

**private** String contactTag; //e.g. home,office,school, others etc

**private** String city;

**private** String pinCode;

**private** String email;

**private int** userId;

**}**

* 1. You should be able to:
     1. Create a new Contact
     2. Find all contacts
     3. Remove a contact
     4. Update a Contact

1. eureka-server: use this server to register your services
2. user-management-service:
   1. Here you should be able to:
      1. Find all the contacts for a user
      2. Find a contact based on contact tag and userId
      3. Create a user with contact
      4. Delete a user with all the contacts
   2. Use Circuit breaker for all the methods you create for user-management-service
   3. All the requests are load balanced (**Optional**, depends upon whether your system has proper networking support)
3. user-management-gateway: Use a gateway to route the requests to the user-management-service. Gateway should be created using Java Based configuration
4. Other tasks to be done:
   1. Write teste cases for all the required components of your application
   2. Create docker image for each micro service
   3. Run them from docker container and test the functionalities using postman.