Computer Science

ICBC Flex Work

Installation Instructions

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1 Introduction

This document is the **Installation Instructions** for **Flex Work**, the desk-sharing solution by *Team Flex*, for *ICBC*. We are a team of six UBC Computer Science students. This Installation Instruction will discribles how to set up dependencies, how to install our application, and how to start our application.

2 Dependencies

2.1 Microsoft Active Directory

In the production environment, ICBC should register our application under their Active Directory. Then edit Active Directory config in our application: `frontend/src/auth.js` More specifically, edit `clientId`. Active Directory should add domain name to their Redirect URIs.

In the development and testing environment, We use Azure Active Directory to simulate production environment. We assume Active Directory stores email address and employee's name. Use email address as identifier. Current version of Flex Work application connects to our Azure Active Directory.

2.2 Database setup

The production environment should use MySQL relational database. To connect our application to production database, you should edit `backend/db/mysqlDB.js` file `remoteOption` field. The insert table script is in `script/insert_table.sql`. The offload DBA script is in `script/archiveBookingsAndAvailabilities.sql`. This DBA script should run everyday at midnight.

The development environment uses Amazon RDS MySQL database. The endpoint is `flexdb.ckmtd5etwo6b.us-east-1.rds.amazonaws.com`, port `3306`. Our application is currently connected to it.

The Testing environment has the same set up as development. Except that the testing environment has some auto generated fake data. The fake record is inserted by SQL scripts in `backend/sql/generated` folder. The generation script is in `backend/sql/generator` folder. Run `npm run gen` to start generation.

2.3 Server setup

Production, development, and testing environment use Centos 7 linux distribution with minimum 2 GB of memory, 30 GB of storage. Production environment should have network setup with port 22 open for SSH connection, port 8080 open for backend service connection. Port 443 open for frontend HTTPS service connection.

Development and testing environment have port 2222 open for SSH connection. Port 3000 open for HTTP service connection. Other network configurations are the same as production.

3 Start Service

3.1 Production service

Production environment should register domain name with Certificate authority then copy certificate file to `backend/cert.pem` and `frontend/cert.pem`. Copy private key file to `backend/privkey.pem` and `frontend/privkey.pem` Then run `production-install.sh` in root with command:

```
sudo sh ./production-install.sh
```

This will install npm dependencies and start frontend and backend service with `forever`

3.1 Development and Testing service

The Development and Testing environment uses `icbcflexwork.me` as domain name. The current CA certificate and private key stored in this package belongs to this domain name. Start service by running `develop-install.sh` in root with command:

```
sudo sh ./develop-install.sh
```

Our current development and testing website can be accessed with https://icbcflexwork.me/