Deployment guide for online order + queue system

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4. Client (ReactJs)

You can use http-server that simply the time for the deployment testing. To install, run “brew install http-sever” from the brew command (OSX)

The default port is 8080 in http-server in your localhost.

For the ReactJs build, please execute npm run build. The complied files will be in the folder /Client/build.

Copy the build files into http-server folder (Default is ~/.public) and reload the page for testing. You can also point to other folders using http-server <folder name> to start

1. Online order + queue system (Python3)
2. Parameters

Inside /Tools, there is a local\_server.py for you to start local server to test, it will load the config in /Deploy/resourcs/ encrypt-dev.yml and env-dev.yml

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| --- | --- |
| RDS\_XXXXXXX | Database configuration |
| SESSION\_EXPIRATION\_MINUTE | How long will the session being expired after finish queuing (i.e Session valid for user entering the order system to place order) |
| CONCURRENT\_MAXIMUM\_USERS | Maximum users that can enter the order system simutaineously |
| VPC\_XXXXXXX | AWS subnet id and security group id |

1. Server startup

To start the local server, simply apply python3 ./server.py inside Order folder for testing

You can also package the application using docker build ./

1. AWS deployment (Serverless framework)
   1. Prerequisite

There are few items you need to setup if you choose AWS deployment

* AWS account
* AWS IAM setup for policy

You can apply the policy in /Setup/03\_AWS\_IAM\_POLICY.json , this policy enables the deployment account having the sufficient right to access AWS S3, CloudFormation, CloudWatch Log, ApiGateway and Lambda

* AWS IAM programmable access key

Obtain the IAM role key from the AWS website, and place into your aws\_creditals file (inside ~/.aws)

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* AWS RDS

Remember to mark down the subnet id and security group id in the RDS portal, you will need these information inside env-dev.yml or env-prd.yml

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* AWS ApiGateway after setup

Make sure you need to select “Deploy API” for the first time after Serverless deployment success to your AWS account

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1. Folder structure

There is a Deployment script for the Serverless framework, which is located in Deploy folder

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| --- | --- | --- |
| File / Folder | Description | Usage |
| Deploy.sh | Deployment script for packaging, project build and deploy to AWS server using servless/serverless.yml config | First time deploy :  Sh ./Deploy.sh deploy  Other deploy moment :   * Sh ./Deploy.sh deploy * Sh ./Deploy.sh deploy -g <group> * Sh ./Deploy.sh deploy function –function <function name> |
| serverless | Configuration of serverless deployment (serverless.yml) | * Serverless.yml (Servlerless configuration) * Package.json (Package json for serverless npm build) * Package-lock.json (Package versioning lock configurations) |
| Resources | Configuration of environment | * Env-dev.yml : Dev environment configuration * Encrypt-dev.yml : Encryption key for Dev environment configuration * Env-prd.yml : Production environment configuration * Encrypt-prd.yml : Encryption key for Production environment configuration |

1. Parameters

|  |  |
| --- | --- |
| Serverless.yml | Environment paramaeter inside provider.stage  Prd = it will load env-prd.yml and encrypt-prd.yml. If changing to dev, it will load the dev set respectively.  Text  Description automatically generated with medium confidence |
| Resources/encrypt-XXXX.yml | Encryption key  You can apply any string for encryption key or leave it blank |
| Resources/env-XXXX.yml | Config for the serverless deployment  If you enter the encryption key, make sure you will need to generate the according information inside Tools/encrypt\_string.py. You can test the encrypted message using Tools/decrypto\_string.py |

1. Deployment

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| --- | --- |
| First time deployment | Sh ./Deploy.sh deploy |
| Deploy all items | Sh ./Deploy.sh deploy |
| Deploy group of functions | Sh ./Deploy.sh deploy -g <group>  Group can be all/other function names, you can check the deploy.sh for more information |
| Calling serverless function | Sh ./Deploy.sh XXXXX XXXXX XXXXXX  If will treat the same as serverless XXXXX XXXXX XXXXX. |