Development guide for online order + queue system

1. Environment requirement
2. Database setup and initialize
3. Client
4. ORM and database structure
5. Endpoints
6. Unit Test
7. Client
8. Order + queueing system
9. Security
10. Environment requirement

|  |  |
| --- | --- |
| IDE | Visual Studio Code or other IDE for code editing |
| Application Server | Build in HTTPServer in python3 |
| Python / PIP3 version | >= 3.7.4 |
| NPM version | >= 12.18.0 |
| Docker | Make sure docker is installed on the development computer |
| AWS | AWS account and the policy right are set (You can use files in /Setup/03\_AWS\_IAM\_POLICY.json) |
| Git | Git command or Git application |
| MySQL server | MySQL server 5.7.30 or above |
| Source | https://github.com/brianlaihkhk/coding-test-online-queue |

1. Database setup and initialize

Inside the /Setup folder, you can initialize the DB

|  |  |
| --- | --- |
| 00\_DATABASE\_INIT.sql | Initialize the database, create user and set according permissions |
| 01\_CREATE\_TABLE.sql | Create table / schema script (Here we don’t use hibernate.hbm2ddl.auto to generate) |
| 02\_IMPORT\_DATA.sql | Import testing data |

1. Client

First obtain the package using npm install . It will load the package.json

Inside /Client/App.js, you can config the HOST in line 7 for the backend url (Currently is pointing to localhost 8081)

1. ORM and database structure

Files are defined in /Order/orm.py

|  |  |  |  |
| --- | --- | --- | --- |
| Class | Referenced Table | Association | Remarks |
| User | USER | PK: USER\_UUID |  |
| Session | SESSION | PK: SESSION\_ID |  |
| Item | ITEM | PK: ITEM\_UUID |  |
| Purchase | PURCHASE | PK: PURCHASE\_UUID  FK:  USER\_UUID  ITEM\_UUID | Purchase orders that depends on USER and ITEM records |

1. Endpoints

Please refer to WS\_XXXXX.yml for more information

1. Unit Test
2. Client:

TBC

b. Order + queueing system:

It is located inside /Unit Test folder

|  |  |
| --- | --- |
| Test\_item.py | Unit test for displaying test item  To run , execute python3 ./test\_item.py |
| Test\_order.py | Unit test for session generation, queue waiting, getting status and submit orders  To run , execute python3 ./test\_order.py |

1. Security

|  |  |  |
| --- | --- | --- |
| Type | Framework used | Remarks |
| DB connection encryption | JWT | Since using cryptography / cryptocode / simple-crypt will show invalid elf header in AWS Lambda (Under osx development). This project will use JWT for configuration encryption and decryption. |
| E2e communication | JWT in Authorization header |  |