Report-Homework3-RESTful web services

# Introduction

For this assignment, we implemented the same flight web services as before, including booking tickets, user authentication, available flights search, check possible itinerary, and issue tickets, using the RESTful web service mechanism. Users have 4 RESTful methods, i.e. PUT, POST, GET, DELETE, to interact with the web resources provided.

# Procedure

## Maven build with Jersey toolkit

We utilized maven building tool to construct the architecture of the web services. We have injected Jersey toolkit as our project dependencies to simply the client-server communication details. (<https://jersey.java.net/>)

ii. Web services implementation & deployment

We implemented the web services and recourse classes with annotations to specify details of the web resources, i.e. location access patterns, request and response types, and etc. There’s also exception handlers to catch exception for invalid user login, ticket not found, and no available seat. After implementation, we used tomcat to deploy our web services locally. We first generated WAR file, then deployed it following the instructions. The landing page of the web service is available at (<https://localhost:8000/rest>)

Iii. Web services tests (client)

After deployment, we attempted to test each web service independently. There are 4 main tests to test methods corresponding to POST, PUT, POST, and DELETE. The expected outputs are the respond messages from the server. The following is a screenshot of the sample output:

