Software Engineering - Test 2

The student is required to develop :

- a **REST Web service**, which exposes data about a *Flight* and a collection of *Flights*. A flight is constituted by a *code* (a String with the following format *ccnnn* where c is a character and n a number in $[0, 9]$), an ID (represented as Integer), *source* (it represents the source airport as String), *destination* (it represents the destination airport as String), *time* (it represents the departure time as String). The web service should be available to perform the following operations :
  - return the whole collection of flights (*getFlights()* method)
  - create a flight passing in input a new flight (*createFlight(Flight flight)* method)
  - return a flight given its ID as input parameter (*getFlight(Integer id)* method)
  - update a flight given its ID and a new flight as input parameters (*updateFlight(Integer id, Flight flight)* method)
  - delete a flight given its ID as input parameter (*deleteFlight(Integer id*) method).

  For a particular flight, the web service should be also able to manage the passengers on board. A Passenger is constituted by an *ID* (represented as Integer) and a *name* (represented as String). For this reason, given a particular flight, it will able to perform the following operations :
  - return the whole collection of passengers on board (*getPassengers()* method)
  - create a passenger passing in input a new passenger (*createPassenger(Passenger passenger)* method)
  - return a passenger on board given its ID as input parameter (*getPassenger(Integer id)* method)

  - update a passenger on board given its ID and a new passenger as input parameters (*updatePassenger(Integer id, Passenger passenger)* method)
  - delete a passenger on board given its ID as input paramter (*deletePassenger(Integer id)* method).

- a **REST client** which performs all the previous operations in order to check if the web service has been properly implemented.