Software Engineering (MsC in Engineering in Computer Science)
Sapienza Università di Roma

Lab #1 – SOAP Web services

On the instructor server (IP address provided verbally during the lab) it is deployed a Web service *BankInterface* (cf. its WSDL at the provided URL), which offers the following operation (the Java signature is reported for simplicity)

- `java.lang.String[] getOperationsByClientID (int ClientID)` - given a `ClientID` (integer), which is the code for a client, returns the IDs of all bank operations performed in the last days by that client
- `java.lang.String getOperationDetailsByID(int OpID)` - given an `OperationID` (integer) returns the full details of the given bank operation, as a unique String in the format
  `"[ID,ID of the performing client,date,amount, description]"`.
  As an example, a possible output might be
  `"[4,1,2015-06-01,150,Cena al ristorante]"`

On its own machine, the student is required to develop a Web service AAAWS, which offers the following operation (the Java signature is reported for simplicity)

- `java.lang.String[] getClients()` - returns all the IDs and names of clients stored in the security sub-system[1].
  The result is returned as an array of strings, each string being the append of a client id, a comma and its name; as an example, a possible string might be `"1,Massimo Mecella"` and a complete result might be
  `["1,Massimo Mecella" "2,Miguel Ceriani"].` It is required that the operation returns at least the example shown above (in order to have some data matching with the ones on the instructor's Web service).

The *student is also required to write a client program* which outputs *all the names of all clients who have performed an operation in the last days with description "Benzina autostrada"* (the client program can be a command line application, a Java Swing program, a servlet/jps, whatever depending on the choice of the student).

Once finished, the instructor with provide the code as well of the *BankInterface* WS and it is required that you refactor the two Web services in order to offer data structures of objects as returning values, and not anymore String (e.g., a map of clients, a map of operations, etc.)

[1] AAA refers to the Authentication Authorization Accounting server.