Advanced Programming (A.Y. 2014-2015)
M.Sc. Engineering in Computer Science
Sapienza University of Rome

Programming test – July 3, 2015 – Duration 1h 30'

On the instructor server with IP address `192.168.49.79:8080`, two Web services are deployed:

- *BankWS* (cf. its WSDL at `http://192.168.49.79:8080/LabTest2015-1stSession/BankWS?wsdl`), 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 <u>in the last days</u> by that client
  - `java.lang.String[] getOperationDetailsByID(int OpID)` - given an `OperationID` (integer) returns the full details of the given bank operation, according to the format *[ID, ID of the performing client, date, amount, description]*. As an example, a possible output might be `[4, 0, 2015-06-01, 150, Cena al ristorante]`
- *AAAWS* (cf. its WSDL at `http://192.168.49.79:8080//LabTest2015-1stSession/AAAWS?wsdl`), 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 a flat array of strings, alternating the ID of a client and its name; as an example, a possible result might be `[0, Massimo Mecella, 1, Camil Demetrescu]`

The ***student must write a client program*** which outputs ***all the names of all clients who have performed an operation <u>in the last days</u> 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).

---

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