Software Engineering
MSc in Engineering in Computer Science
Sapienza Università di Roma

Programming test – Duration 120 mins

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The student is required to develop:

- A **RESTful service BOOKWS**, which exposes data about a `Book` and a collection of `Books`. The features of a book are the `title` (a String), an `author` (represented as a String – we assume a single author for book), a `year` of publication (again represented as a String) and an `ID` (unique identifier). Please initialize the Web service with at least 10 books.

  In developing the service, please adopt all simplifications you may deem necessary, and in particular adhere to the simple method(s) presented in classes and lab lessons. The exact design of the interface of the service is up-to-you.

- A **SOAP service WAREHOUSEWS**, which exposes commercial information about a `Book`. In particular, given the `ID` (unique identifier) of a book, it returns the `price` (real) of such a book, the list of `Sellers` for such a book and for each seller the estimated `delivery date` (a String in the format `dd/mm/yyyy`) in case of purchase. A seller is represented as a String (and we assume such strings are unique).

  *In developing the service, please adopt all simplifications you may deem necessary, and in particular adhere to the simple method(s) presented in classes and lab lessons. The exact design of the interface of the service is up-to-you. **It is important that the IDs used in the SOAP service are coherent with those ones of the RESTful service***

- **a simple client** which:
  - allows the user to retrieve the list of all books,
  - allows the user to insert the ID of a book (assuming the client has previously read the list of available books) and shows all the details (including the name of the author and his/her year of birth, and the list of the sellers)
  - allows, given a seller (again assuming the client has previously read the list of sellers) to know the estimated delivery date of the given book by such a seller.

The assignment will be evaluated not only in terms of correctly executing, but also on the appropriateness of the services' interfaces given the above specifications and the correct respect of the user dialog as described above.