Cloud Computing for the R environment

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The tutorial will introduce a new *R* package and a new visual GUI designer created to help *R* users in taking advantage of cloud computing and in leveraging the web to create and publish easily interactive applications and reports based on R's capabilities.

The **elasticR** package makes it possible to use the Amazon cloud programmatically from a regular *R* session. *R* servers with a rich and stateful interface can be created on *EC2* with simple *R* functions and used to offload time-consuming computations to machines of large capacities, to apply *R* functions to large data sets in parallel and to collaborate in real-time.

RBoard is a virtual collaborative environment for creating in the cloud, visually or programmatically, User Interfaces and dashboards based on *R* functions and data. Widgets of various complexities (spreadsheet elements, sliders, *R* graphics viewers, regular, interactive and motions charts, *R* macros and data links, *Html 5* and *Java* Plugins, etc.) can be composed into virtual panels and published to the web like a *Google Document*.

Topics of this tutorial will include:

- An overview of cloud computing technologies and of the **Elastic-R** platform.

- Exercises to familiarize users with the most important functionalities of the **elasticR** package.

- Collaborative exercises to create and publish advanced *R*-based dashboards using **RBoard**.

Users are expected to have working familiarity with *R* and to have an up-to-date installation of *R*, *Java* and *Flash*.

Resources about the tutorial are available at the following address : http://www.elastic-r.net/user2012.

References

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