

# 732A94 Advanced R Programming

## Computer lab 5: API R projects

Krzysztof Bartoszek, Bayu Brahmantio.  
(designed by Leif Jonsson, Måns Magnusson and Héctor Rodríguez Déniz)  
(updates and converted to L<sup>A</sup>T<sub>E</sub>X by Arash Haratian))

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Lab deadline: **6 October 23:59**

Below are some API that can be used as a part of the assignment to implement an R package to connect to an API. In connection to each API there is a short description and the difficulty of implementation is indicated using one, two or three stars with one star (simpler) to three stars (difficult). Some projects are about implementing XML parsers for more complex XML files of interest.

In general there exist many different web APIs and you can choose any API you may find interesting. If you choose any other API than the ones listed below, you need to confirm your choice with the teacher. The only restriction is that the API should not already have an R package.

\* **OpenStreetMaps via Stamen Tiles** is a free alternative to the Google Maps API. Stamen provides three tiles that uses OpenStreetMap data, and that can be freely used. More information can be found [here](http://maps.stamen.com) (<http://maps.stamen.com>). The ggmap library can provide access to Stamen maps, although you can still download maps from Google if you have an API key. More information [here](http://github.com/dkahle/ggmap) (<http://github.com/dkahle/ggmap>).

\* **Kolada API** is an API to the Kolada database that contains key indicators regarding the Swedish municipalities. More information can be found [here](https://www.kolada.se/om-oss/api/) (<https://www.kolada.se/om-oss/api/>).

\*\* **Riksdagen** or the Swedish parliament have an API to get documents, debates and information about members of parliament. Information about the API can be found [here](https://www.riksdagen.se/sv/dokument-och-lagar/riksdagens-oppna-data/) (<https://www.riksdagen.se/sv/dokument-och-lagar/riksdagens-oppna-data/>).

The data is mainly textual data so the R package should convert the data to the data structures used in the `tm` R package.

\*\* **Språkbanken** is a web resource with corpora in XML format. As with the other textual resources the purpose with this corpus is to read any XML file into R as a `tm` type corpus object with all textual metadata included. The list of corpora can be found [here](https://spraakbanken.gu.se/resurser/corpus) (<https://spraakbanken.gu.se/resurser/corpus>).

Språkbanken also provides a platform called Korp to search for text in a large amount. This also comes with its own API, called Korp API.

\*\*\* **Thenmaps** Historical map in geoJSON format. Need to handle spatial data, see [spatial.ly](http://spatial.ly) for more information on geographical data. More information can be found [here](http://www.thenmap.net/) <http://www.thenmap.net/>.