

Lab05

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1. Introduction

This R package **Lab05** queries information on Air Quality Index of Major cities Sweden of the past 3 months. The user can select which city they want to query. Air Quality Index is given in PMI 10. PM10 is any particulate matter in the air with a diameter of 10 micrometers or less, including smoke, dust, soot, salts, acids, and metals. Particulate matter can also be formed indirectly when gases emitted from motor vehicles and industries undergo chemical reactions in the atmosphere. Date and time expressed according to ISO 8601. ref

2. aqiGet() function

aqiGet() function is being used to query the data on Air Quality Index. It is accessing from SMHI in collaboration with Naturvårdsverket. ref

This function will return the list of data sets that were extracted earlier. Data for Linkoping City will be in Data set number 1, and Data Set number 2, 3, 4, 5 and 6 contains data for Stockholm, Malmo, Gothenburg, Lulea and Umea respectively.

Example

This example shows query of Linkoping data on Air Quality Index.

```
library(Lab05)
df<-aqiGet()
df<-df[[1]]
head(df)
```

```
##      timestamp  value
## 1 1.624838e+12 11.402
## 2 1.624842e+12 11.443
## 3 1.624846e+12 12.318
## 4 1.624849e+12 12.835
## 5 1.624853e+12 14.738
## 6 1.624856e+12 17.280
```

Example

This example shows query of Malmo data on Air Quality Index.

```
library(Lab05)
df<-aqiGet()
df<-df[[3]]
head(df)
```

```
##      timestamp value
## 1 1.624838e+12 14.60
## 2 1.624842e+12 14.40
## 3 1.624846e+12 12.80
## 4 1.624849e+12 12.10
## 5 1.624853e+12  9.03
## 6 1.624856e+12 14.80
```

3. Shiny App

There is a accompanying shiny application to this API package. The shiny application includes interactivity for selection of city.

Example

Shiny web app can be access through the following code:

```
library(Lab05)
shiny::runApp('App')
```