Kanton Zürich
Statistisches Amt

ZURICH REAL ESTATE APP

A SHINY APP FOR THE ZURICH REAL ESTATE MARKET

ERUM 2018, MAY 21 2018

MAX GRÜTTER
STATISTICAL OFFICE OF THE CANTON OF ZURICH

ZURICH REAL ESTATE DATA

A UNIQUE AND COMPLETE DATASET, WHICH YOU CAN FIND ON OUR HOMEPAGE:
STATISTIK.ZH.CH/IMMOMARKT

THE TOOLS NO LONGER MEET THE NEEDS OF OUR CUSTOMERS

ZHRE APP: CONCEPT

SHINY UI

fluidPage with sidebarLayout and fluidRow
Control widgets:
sliderInput, slectInput, bookmarkButton
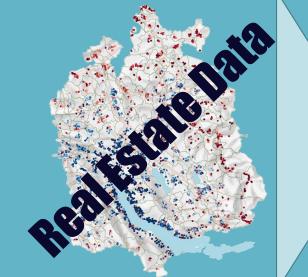Reset with actionButton and shinyjs
conditionalPanel
tabsetPanel

filter, mutate, render

SHINY SERVER

reactive({})
dplyr::filter
distrr::dcc6
leaflet
ggplot2
plotly

Real Estate Data

ZHRE APP

Zurich RealEstateApp

Kanton Zürich Statistisches Amt

Reset inputs | Bookmark this APP state

Land Characteristics

Location Quality (min)
very moderate

Location Quality (max)
very good

Distance to Zurich city centre (in km)
0 — 35

Distance to Lake Zurich (in m)
0 — max

Land area (in sqm)
=0 — 3000

House or Apartment Characteristics

Number of rooms (min)
1 room

Number of Rooms (max)
7+ rooms

Living space in sqm
0 — 500

Construction year
after 1900

Year of Sale
2007 — 2017

Type of Property
Detached House ▼

Regional level
Canton of Zürich ▼

Data | Map | Graphics | Igraphics | Explanations

Number of sales and prices in CHF

Year	Number of Observations	Price (Mean)	Price (sd)	Price (Q1)	Price (Median)	Price (Q3)
TOTAL	19'000	1'147'000	629'000	764'000	972'000	1'328'000
2007	1'715	946'000	543'000	645'000	801'000	1'039'000
2008	1'685	966'000	555'000	667'000	815'000	1'063'000
2009	1'818	989'000	510'000	694'000	863'000	1'131'000
2010	1'863	1'077'000	607'000	734'000	901'000	1'229'000
2011	1'752	1'122'000	647'000	753'000	939'000	1'284'000
2012	1'715	1'183'000	611'000	803'000	1'018'000	1'376'000
2013	1'567	1'224'000	675'000	810'000	1'040'000	1'401'000
2014	1'673	1'221'000	621'000	834'000	1'064'000	1'381'000
2015	1'803	1'268'000	625'000	874'000	1'118'000	1'448'000
2016	1'761	1'281'000	662'000	870'000	1'110'000	1'470'000
2017	1'648	1'361'000	695'000	915'000	1'187'000	1'549'000

⬇ Download

MAXZH.SHINYAPPS.IO/ZHREAPP

ZHRE APP: SOLVED CHALLENGES

ONE APP FOR THREE STATISTICS

  →   `conditionalPanel()`

DATA PROTECTION

  →   `hexagon instead of exact coordinates`

GREAT FLEXIBILITY OF THE QUERY

  →   full Dataset **&** `distrr::dcc6`

DOWNLOAD OF CALCULATED DATA AND GRAPHS

  →   `reactive({})` **&** `downloadHandler()`

VISUALISATION IN A MAP

  →   `reactive({})` **&** `leaflet()`

WARNING IF NUMBER OF OBSERVATION IS TO LOW

  →   `modalDialog()`

ZHRE APP: PENDING CHALLENGES

DOWNLOAD THE DATA AS FORMATTED EXCEL INCLUDING FILTERSETTINGS

→ work in progress. I've already tried a lot.....

USABILITY ON MOBILE DEVICES

→ is there a solution without compromising flexibility

SCALABILITY: ONE APP FOR MANY USERS

→ this becomes important as soon as we make the app available to our customers

NO REDRAWING OF THE MAP IF FILTERS ARE CHANGED

→ should be possible with `leafletProxy()`

SELECTION WITHIN THE MAP

→ should be possible with `crosstalk()`

Thank you!

TRY OUT & PLAY
YOURSELF:
MAXZH.SHINYAPPS.IO/ZHREAPP

FIND THE CODE OFF THE APP
ON MY GITHUB ACCOUNT:
GITHUB.COM/MXGRTTR/ZHREAPP

KEEP IN TOUCH:
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MAX.GRUETTER
@STATISTIK.JI.ZH.CH