Regency Historical

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1 Introduction

The purpose of the script is to devide the full historical data per regencies.

2 script

First, we need to make sure that there are no predefined variables.

```
rm(list = ls(all = TRUE))
```

Then, import library

```
library(stringr)
```

Declare working directory. ”dirname” is a function to extract the directory of the script.

```
script_dir <- dirname(rstudioapi::getSourceEditorContext()$path)
```

Declare the historical data directory.

```
#historical data directory
historical_dir <- paste0(
  substr(script_dir, 1, unlist(gregexpr("/2. script", script_dir))),
  "\\1. historical Indonesia"
)
```

Import the pixel to village table.

```
#import village to pixel table
reference_table <- read.csv(paste0(
  substr(script_dir, 1, unlist(gregexpr("/2. script", script_dir))),
  "\\1. historical Indonesia",
  "\\village_to_pixel_final gsmap.csv"
))
```

Load the GSMaP historical data.

```
#load the GSMaP historical data
load(paste0(
  substr(script_dir, 1, unlist(gregexpr("/2. script", script_dir))),
  "\\1. historical Indonesia",
  "\\final_historical_indo_gsmap_daily.RData"
))
```

Define the regency, if we want to create new product for new regencies, then this put the regency name into this variable.

```
regencies <- c("Indramayu", "Purwakarta", "Subang", "Majalengka", "
   Cirebon", "Metro", "Lampung Tengah", "Lampung Selatan", "Lampung Timur
   ", "Madiun", "Ngawi", "Nganjuk", "Malang",
              "Tulungagung", "Jember", "Jombang", "Blitar", "Kediri")
```

Check whether every regencies is in the table

```
'%!in%' <- Negate("%in%")
for(i in regencies){
  if (i %!in% reference_table$regency){
    print(i)
  }
}
```

For loop to filter the table.

```
for(i in regencies){
  regency_table <- reference_table[which(reference_table$regency == i),]
  pixel_regency <- unique(regency_table$pixel_name)

  hist_regency <- hist_data_gsmap_Indo_daily[,which(colnames(
     hist_data_gsmap_Indo_daily) %in% pixel_regency)]
  hist_regency <- cbind(hist_data_gsmap_Indo_daily$date, hist_regency)
  colnames(hist_regency)[1] <- "date"

  write.csv(hist_regency, paste0(historical_dir,"\\final_historical_", i
     ,"_gsmap.csv"), row.names = FALSE)
  write.csv(regency_table, paste0(historical_dir, "\\regency_table_", i
     ,"_gsmap.csv"), row.names = FALSE)
}
```