

HomeWork12

Zhuo Chen

2018/11/30

Preparation

```
library(httr)
```

the get_title function

search for the title with some certain word included

```
get_title_word <- function(word_given){  
  base <- "https://newsapi.org/v2/top-headlines?sources=le-monde&apiKey="  
  end_base <- "98f4493768704ac986063cd67f82de67"  
  url1 <- paste(base, end_base, sep="")  
  
  x <- httr::GET(url=url1)  
  x <- jsonlite::fromJSON(rawToChar(x$content))  
  
  titles <- x$articles$title  
  nhits <- titles[grep(word_given, titles)]  
  return(nhits)  
}
```

translate function

translate the title from French to English

```
translate_title <- function(nhits){  
  API_key <- "AIzaSyDnv3wqborQ62nUDZr9tJb8Thc5i9znx0k"  
  #translateR::getGoogleLanguages()  
  
  text <- nhits  
  source <- "fr"  
  target <- "en"  
  
  body <- paste("{",  
                "'q':", text, ",",  
                "'source':", source, ",",  
                "'target':", target, ",",  
                "'format': 'text',",  
                "}", sep="")  
  
  base <- "https://translation.googleapis.com/language/translate/v2?key="
```

```

url <- paste(base, API_key, sep="")

x <- httr::POST(url, body = body)
x <- jsonlite::fromJSON(rawToChar(x$content))
out <- x$data$translations$translatedText
return(out)
}

```

Sound out MP3 function

To get a MP3 version of the text translated and make it sounded out

```

sound_out_title <- function(out){
  API_key <- "AIzaSyDnv3wqborQ62nUDZr9tJb8Thc5i9znx0k"
  text <- paste(out, collapse=" ")
  text <- gsub("'", "", text)

  input <- paste("'input':{'text':'", text, "'}", sep="")
  voice <- "'voice':{'languageCode':'en-GB','name':'en-GB-Standard-C','ssmlGender':'FEMALE'}"
  output <- "'audioConfig':{'audioEncoding':'MP3'}"

  s_body <- paste("{", input, ",", voice, ",", output, "}", sep="")

  base_url <- "https://texttospeech.googleapis.com/v1/text:synthesize?key="
  url <- paste(base_url, API_key, sep="")

  x <- httr::POST(url, body = s_body)
  x <- jsonlite::fromJSON(rawToChar(x$content))
  Sys.setenv(output_string=x$audioContent)
  system("echo $output_string > LeMonde_out.txt")

  system("base64 --decode LeMonde_out.txt > LeMonde_out.mp3")
  system("afplay LeMonde_out.mp3")
}

```

Sample display

To get a recent title with word “font” from LeMonde, translate it into English and make it sounded out with MP3 file

```

nhits <- get_title_word("font")
out <- translate_title(nhits)
sound_out_title(out)

```

```
#Original French title  
nhits
```

```
## [1] "Ils font remarquer les paralytiques"
```

```
#Translated English title  
out
```

```
## [1] "They make the paralytics walk again"
```