

Ziyun Wang Homework 12

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```
library(httr, quietly = T)
```

get_headlines function The get_headlines function takes a keyword to search and returns the headlines that contains that word.

```
get_headlines <- function(word_given){
  base <- "https://newsapi.org/v2/everything?sources=le-monde&apiKey="
  ZiyunApiKey <- "88f66b32d51a44bd88e3d6e8f21d1751"
  url1 <- paste(base, ZiyunApiKey, sep="")

  x <- httr::GET(url=url1)
  x <- jsonlite::fromJSON(rawToChar(x$content))

  titles <- x$articles$title
  nhits <- titles[grep(word_given, titles)]
  return(nhits)
}
```

get_headlines function: Example

```
nhits <- get_headlines("bitcoin")
nhits
```

```
## [1] "« Le bitcoin ne fera pas rôtir la planète »"
```

French to English Headline Translation This function will translate the selected headline.

```
translate_headlines <- function(nhits){
  GoogleAPI_key <- "AIzaSyDnv3wqborQ62nUDZr9tJb8Thc5i9znx0k"
  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, GoogleAPI_key, sep="")

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

French to English Headline Translation: Example

```
nhits <- get_headlines("bitcoin")
nhits
```

```
## [1] "« Le bitcoin ne fera pas rôtir la planète »"
```

```
out <- translate_headlines(nhits)
out
```

```
## [1] "\"Bitcoin will not roast the planet\""
```

Text to Speech function The text_to_speech function will take the headline and read it.

```
text_to_speech <- function(out){
  GoogleAPI_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, GoogleAPI_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")
}
```

Text to Speech function: Example

```
nhits <- get_headlines("découverte")
nhits
```

```
## [1] "La découverte d'une petite Pompéi, au sud de Lyon, primée"
```

```
out <- translate_headlines(nhits)
out
```

```
## [1] "The discovery of a small Pompeii, south of Lyon, awarded"
```

```
text_to_speech(out)
```