1. What are the questions that a data scientist can ask on Covid-19 data? Think of some good questions and then categorize your questions as descriptive, exploratory, inferential and predictive.

Q1:How Data Science Is Being Used to Understand COVID-19

A:We could build a complete statistical system that could measure the latest number of cases, cures and deaths. The patient's whereabouts can be counted, and when we input the relevant address, we can query whether we have been in contact with the patient.

Q2:How to use data science to predict the future development of COVID-19

A:We can collect the latest data of each government and analyze the data by considering seasonal, social, economic and other development factors. Then, based on the conclusion of analysis, we can predict the development trend of the epidemic in the future and help people in related areas to come up with the most appropriate epidemic prevention measures.

2. Web scraping with R

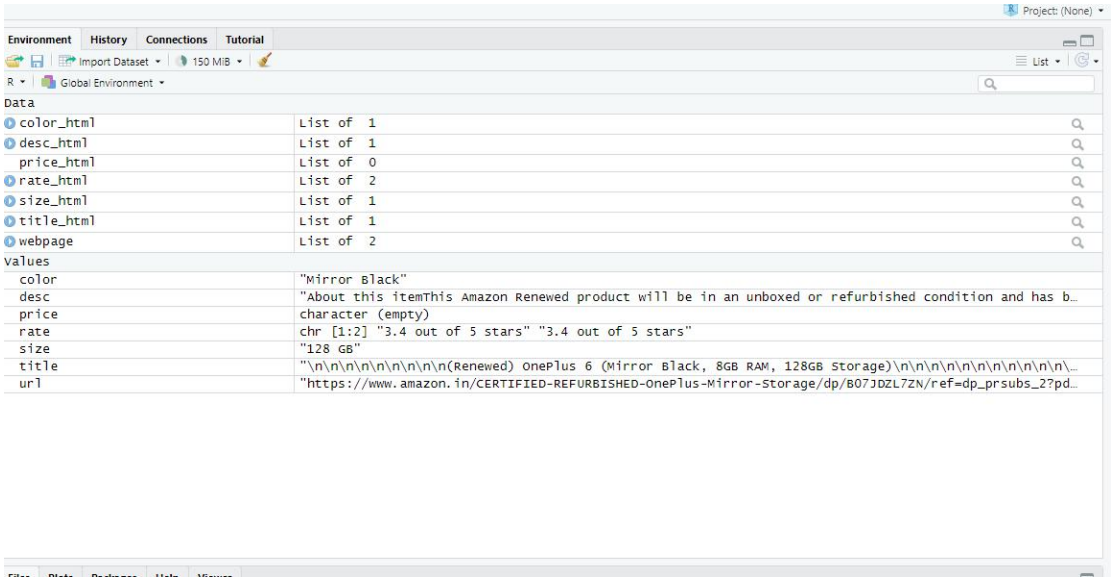
```
#loading the package
library(xml2)
library(rvest)
library(stringr)

url<-"https://www.amazon.in/CERTIFIED-REFURBISHED-OnePlus-Mirror-Storage/
dp/B07JDZL7ZN/ref=dp_prsubs_2?pd_rd_i=B07JDZL7ZN&psc=1"
webpage <- read_html(url)
#titele
title_html <- html_nodes(webpage, 'h1#title')
title <- html_text(title_html)
head(title)
str_replace_all(title, "[\r\n]" , "")
print(head(title))


#price
price_html <- html_nodes(webpage, 'span#priceblock_ourprice')
price <- html_text(price_html)
print(price)
str_replace_all(title, "[\r\n]" , "")
head(price)

#desc
desc_html <- html_nodes(webpage, 'div#feature-bullets')
desc <- html_text(desc_html)
desc <- str_replace_all(desc, "[\r\n\t]" , "")
desc <- str_trim(desc)
head(desc)
#rate
rate_html <- html_nodes(webpage, 'span#acrPopover')
rate <- html_text(rate_html)
rate <- str_replace_all(rate, "[\r\n]" , "")
rate <- str_trim(rate)
head(rate)
#size
size_html <- html_nodes(webpage, 'div#variation_size_name')
size_html <- html_nodes(size_html, 'span.selection')
size <- html_text(size_html)
head(size)
#color
color_html <- html_nodes(webpage, 'div#variation_color_name')
color_html <- html_nodes(color_html, 'span.selection')
color<- html_text(color_html)
color<- str_trim(color)
head(color)

product_data <- data.frame(Title = title, Price = price,Description = desc,
Rating = rate, Size = size, Color = color)
str(product_data)
library(jsonlite)
json_data <- toJSON(product_data)
cat(json_data)
```


Project: (None)
Environment
History
Connections
Tutorial
Import Dataset
150 MiB
List
R
Global Environment
Data
color_html
List of 1
desc_html
List of 1
price_html
List of 0
rate_html
List of 2
size_html
List of 1
title_html
List of 1
webpage
List of 2
Values
color
"Mirror Black"
desc
"About this itemThis Amazon Renewed product will be in an unboxed or refurbished condition and has b…
price
character (empty)
rate
chr [1:2] "3.4 out of 5 stars" "3.4 out of 5 stars"
size
"128 GB"
title
"\n\n\n\n\n\n\n\n\n(Renewed) OnePlus 6 (Mirror Black, 8GB RAM, 128GB Storage)\n\n\n\n\n\n\n\n\n\n\n\…
url
"https://www.amazon.in/CERTIFIED-REFURBISHED-OnePlus-Mirror-Storage/dp/B07JDZL7ZN/ref=dp_prsubs_2?pd…