NIGERIA WORLD BANK DATASET

Ifenna

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Importing

```
library(readxl)
library(readr)
library(tidyverse)
```

```
## Warning: package 'dplyr' was built under R version 4.4.2
```

```
## -- Attaching core tidyverse packages ----------------------- tidyverse 2.0.0 --
## v dplyr     1.1.4     v purrr     1.0.2
## v forcats   1.0.0     v stringr   1.5.1
## v ggplot2   3.5.1     v tibble    3.2.1
## v lubridate 1.9.3     v tidyr     1.3.1
## -- Conflicts ------------------------------------------- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

```
World_bank<-read_excel("P_Data_Extract_From_World_Development_Indicators.xlsx")
print(World_bank)
```

```
## # A tibble: 58 x 16
##    'Country Name' 'Country Code' 'Series Name'     'Series Code' '1990 [YR1990]'
##    <chr>          <chr>          <chr>             <chr>         <chr>
##  1 Nigeria        NGA            Population, total SP.POP.TOTL   97120925
##  2 Nigeria        NGA            Population growt~ SP.POP.GROW   2.702888043249~
##  3 Nigeria        NGA            Surface area (sq~ AG.SRF.TOTL.~ 923770
##  4 Nigeria        NGA            Population densi~ EN.POP.DNST   106.6360606958~
##  5 Nigeria        NGA            Poverty headcoun~ SI.POV.NAHC   ..
##  6 Nigeria        NGA            Poverty headcoun~ SI.POV.DDAY   ..
##  7 Nigeria        NGA            GNI, Atlas metho~ NY.GNP.ATLS.~ ..
##  8 Nigeria        NGA            GNI per capita, ~ NY.GNP.PCAP.~ ..
##  9 Nigeria        NGA            GNI, PPP (curren~ NY.GNP.MKTP.~ ..
## 10 Nigeria        NGA            GNI per capita, ~ NY.GNP.PCAP.~ ..
## # i 48 more rows
## # i 11 more variables: '2000 [YR2000]' <chr>, '2014 [YR2014]' <chr>,
## #   '2015 [YR2015]' <chr>, '2016 [YR2016]' <chr>, '2017 [YR2017]' <chr>,
## #   '2018 [YR2018]' <chr>, '2019 [YR2019]' <chr>, '2020 [YR2020]' <chr>,
## #   '2021 [YR2021]' <chr>, '2022 [YR2022]' <chr>, '2023 [YR2023]' <chr>
```

Cleaning

```
nigeria_data<- World_bank %>%
  filter(`Country Name`=="Nigeria")

selected_criteria <- c("Population, total",
         "Population growth (annual %)",
         "Surface area (sq. km)",
         "Poverty headcount ratio at national poverty line",
         "GDP (current US$)",
         "GDP growth (annual %)")

nigeria_data_filter<-nigeria_data %>%
  filter(`Series Name` %in% selected_criteria)
print(nigeria_data_filter)
```

```
## # A tibble: 5 x 16
##   `Country Name` `Country Code` `Series Name`      `Series Code` `1990 [YR1990]`
##   <chr>          <chr>          <chr>              <chr>         <chr>
## 1 Nigeria        NGA            Population, total  SP.POP.TOTL   97120925
## 2 Nigeria        NGA            Population growth~ SP.POP.GROW   2.702888043249~
## 3 Nigeria        NGA            Surface area (sq.~ AG.SRF.TOTL.~ 923770
## 4 Nigeria        NGA            GDP (current US$)  NY.GDP.MKTP.~ 54035795387.80~
## 5 Nigeria        NGA            GDP growth (annua~ NY.GDP.MKTP.~ 11.77688593420~
## # i 11 more variables: `2000 [YR2000]` <chr>, `2014 [YR2014]` <chr>,
## #   `2015 [YR2015]` <chr>, `2016 [YR2016]` <chr>, `2017 [YR2017]` <chr>,
## #   `2018 [YR2018]` <chr>, `2019 [YR2019]` <chr>, `2020 [YR2020]` <chr>,
## #   `2021 [YR2021]` <chr>, `2022 [YR2022]` <chr>, `2023 [YR2023]` <chr>
```

Pivoting the filtered dataset

```
nigeria_long<-nigeria_data_filter %>%
  pivot_longer(cols=5:16,
               names_to = "Year",
               values_to = "Values") %>%
               mutate(Year= as.numeric(str_extract(Year, "\\d{4}")))
print(nigeria_long)
```

```
## # A tibble: 60 x 6
##    `Country Name` `Country Code` `Series Name`     `Series Code`  Year Values
##    <chr>          <chr>          <chr>             <chr>         <dbl> <chr>
##  1 Nigeria        NGA            Population, total SP.POP.TOTL    1990 97120925
##  2 Nigeria        NGA            Population, total SP.POP.TOTL    2000 126382494
##  3 Nigeria        NGA            Population, total SP.POP.TOTL    2014 185896915
##  4 Nigeria        NGA            Population, total SP.POP.TOTL    2015 190671878
##  5 Nigeria        NGA            Population, total SP.POP.TOTL    2016 195443700
##  6 Nigeria        NGA            Population, total SP.POP.TOTL    2017 200254579
##  7 Nigeria        NGA            Population, total SP.POP.TOTL    2018 204938755
##  8 Nigeria        NGA            Population, total SP.POP.TOTL    2019 209485641
##  9 Nigeria        NGA            Population, total SP.POP.TOTL    2020 213996181
## 10 Nigeria        NGA            Population, total SP.POP.TOTL    2021 218529286
## # i 50 more rows
```

GDP TREND OVER THE YEARS

```
gdp_trend<-nigeria_long %>%
  filter(`Series Name`=="GDP (current US$)") %>%
  select(Year, Values) %>%
  mutate(GDP= as.numeric(Values))

gdp_trend<-gdp_trend[-2]
print(gdp_trend)
```

```
## # A tibble: 12 x 2
##      Year          GDP
##     <dbl>        <dbl>
##  1  1990  54035795388.
##  2  2000  69171451627.
##  3  2014 574183763412.
##  4  2015 493026682801.
##  5  2016 404649125252.
##  6  2017 375745731053.
##  7  2018 421739251509.
##  8  2019 474517490844.
##  9  2020 432198898468.
## 10  2021 440833635874.
## 11  2022 477403400101.
## 12  2023 363846332835.
```

```
ggplot(gdp_trend,
       aes(x= Year, y= GDP/1e9))+
       labs(title = "GDP Growth in Nigeria",
            x = "Year",
            y = "GDP (Billion US$)")+
  geom_line(color="darkgreen",alpha=0.5)+
  theme_bw()
```

GDP Growth in Nigeria
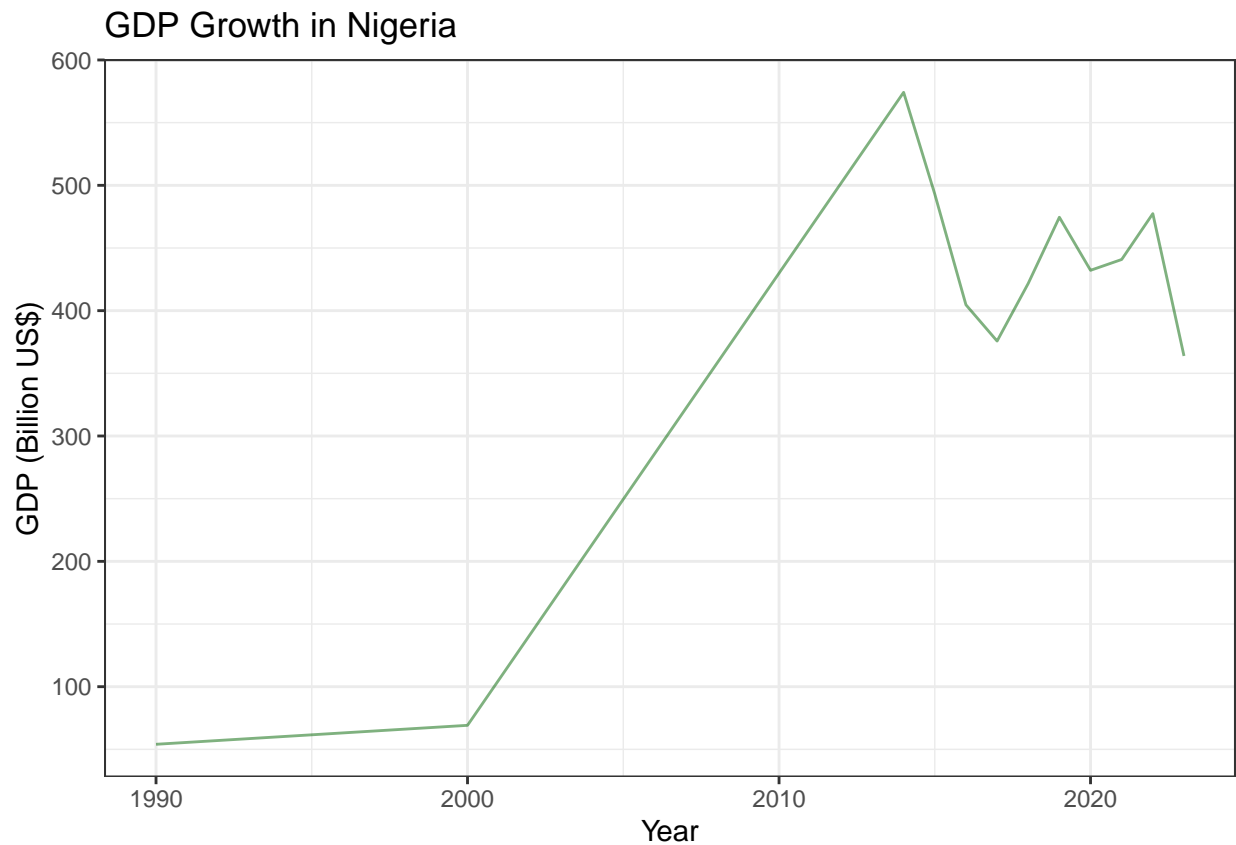
POPULATION OVER TIME IN NGN

```
population_Year<-nigeria_long %>%
  filter(`Series Name`== "Population, total") %>%
  mutate(Total.p= as.numeric(Values)) %>%
  select(Year, Total.p)

ggplot(population_Year,
       aes(x= Year, y= Total.p/1e6))+
         labs(title= "POPULATION OVER TIME IN NGN",
              x= "Year",
              y= "Total Population(millions)")+
         geom_line(color= "black")+
         theme_classic()
```

POPULATION OVER TIME IN NGN
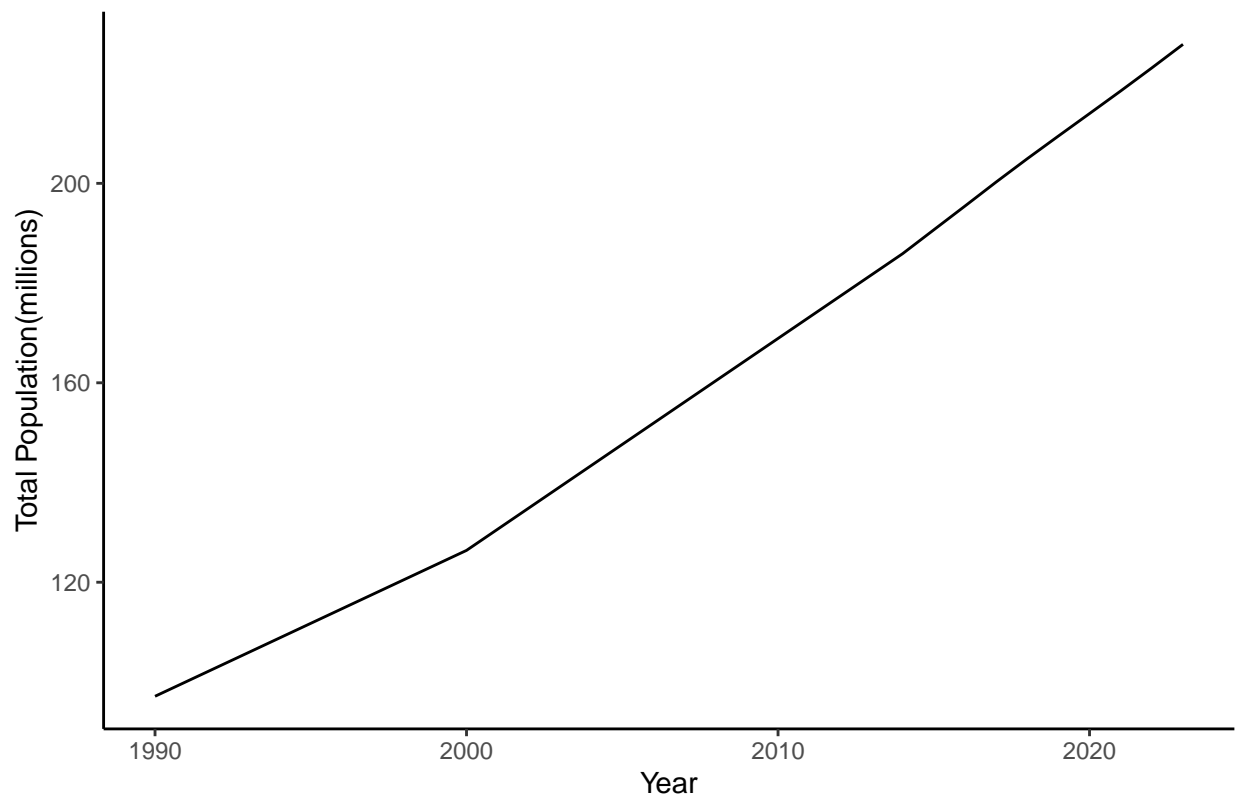
GDP PER CAPITAL

```r
percapital_pop<-  nigeria_long %>%
  filter(`Series Name`== c("Population, total")) %>%
  select(Year, Values) %>%
  mutate(TOTAL_POPULATION= as.numeric(Values))

percapital_GDP<-  nigeria_long %>%
  filter(`Series Name`== c("GDP (current US$)")) %>%
  select(Year, Values) %>%
  mutate(GDP_TOTAL = as.numeric(Values))

GDP_CAPITAL<- mutate(percapital_pop, GDP=percapital_GDP$GDP_TOTAL)
GDP_CAPITAL<-GDP_CAPITAL[-2]
GDP_CAPITAL$percapita<- GDP_CAPITAL$GDP/GDP_CAPITAL$TOTAL_POPULATION

ggplot(GDP_CAPITAL, aes(x = Year, y = percapita)) +
  geom_line(color = "orange") +
  labs(title = "GDP Per Capita in Nigeria",
       x = "Year",
       y = "GDP Per Capita (US$)") +
  theme_minimal()
```

GDP Per Capita in Nigeria