Assignment 1

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2023-02-04

```
library(ggplot2)
```

```
## Warning: package 'ggplot2' was built under R version 4.1.3
```

```
library(dplyr)
```

```
## Warning: package 'dplyr' was built under R version 4.1.3
```

```
##
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

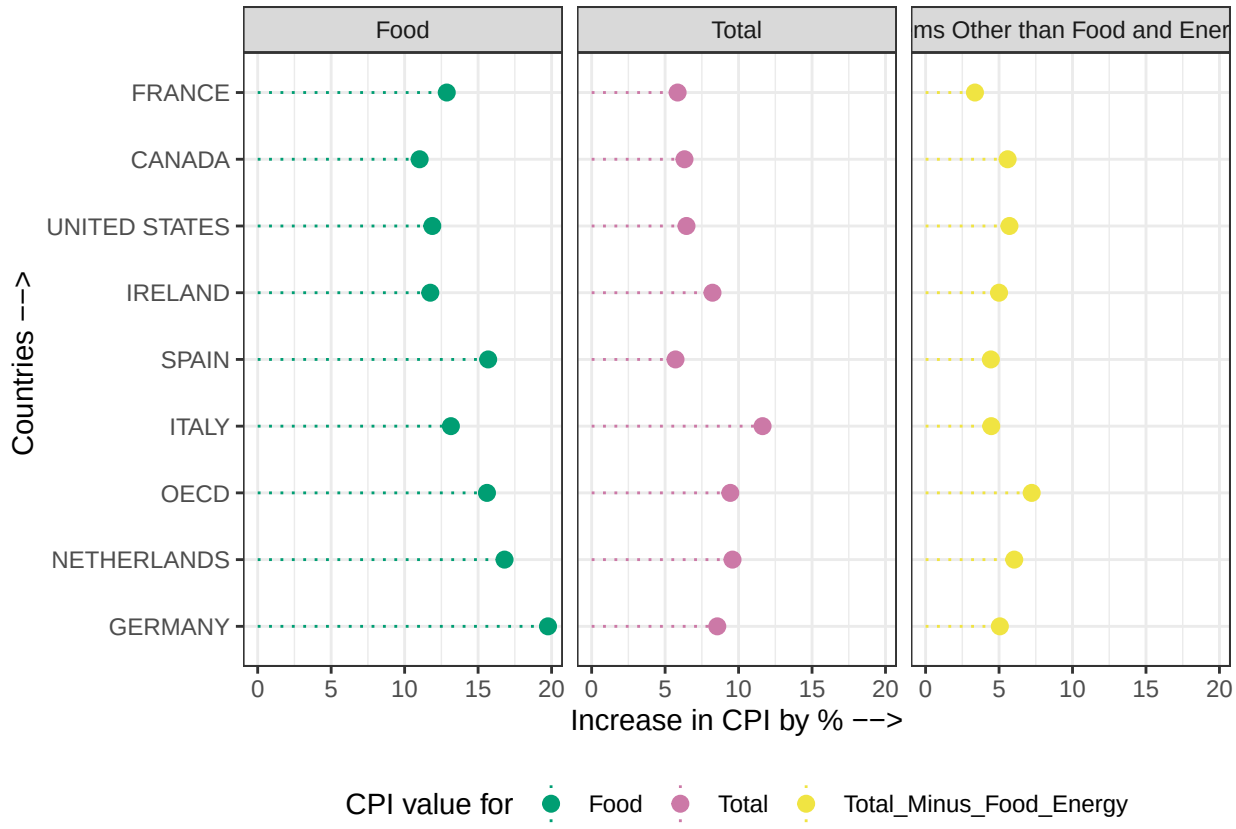
```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
library(gghighlight)
```

```
## Warning: package 'gghighlight' was built under R version 4.1.3
```

```
df <- read.csv("Counsumer_Price_Index.csv")

df <- df %>%
  rename(Location = ï..Location)

sav <- df %>%
  filter(Location %in% c("IRL", "CAN", "AUS",
                         "USA", "FRA", "DEU",
                         "ESP", "ITA", "NLD", "OECD")) %>%
  filter(Time == "2022-12") %>%
  mutate(Location = recode(Location,
                           "IRL" = "IRELAND",
                           "AUS" = "AUSTRALIA",
                           "USA" = "UNITED STATES",
                           "DEU" = "GERMANY",
```

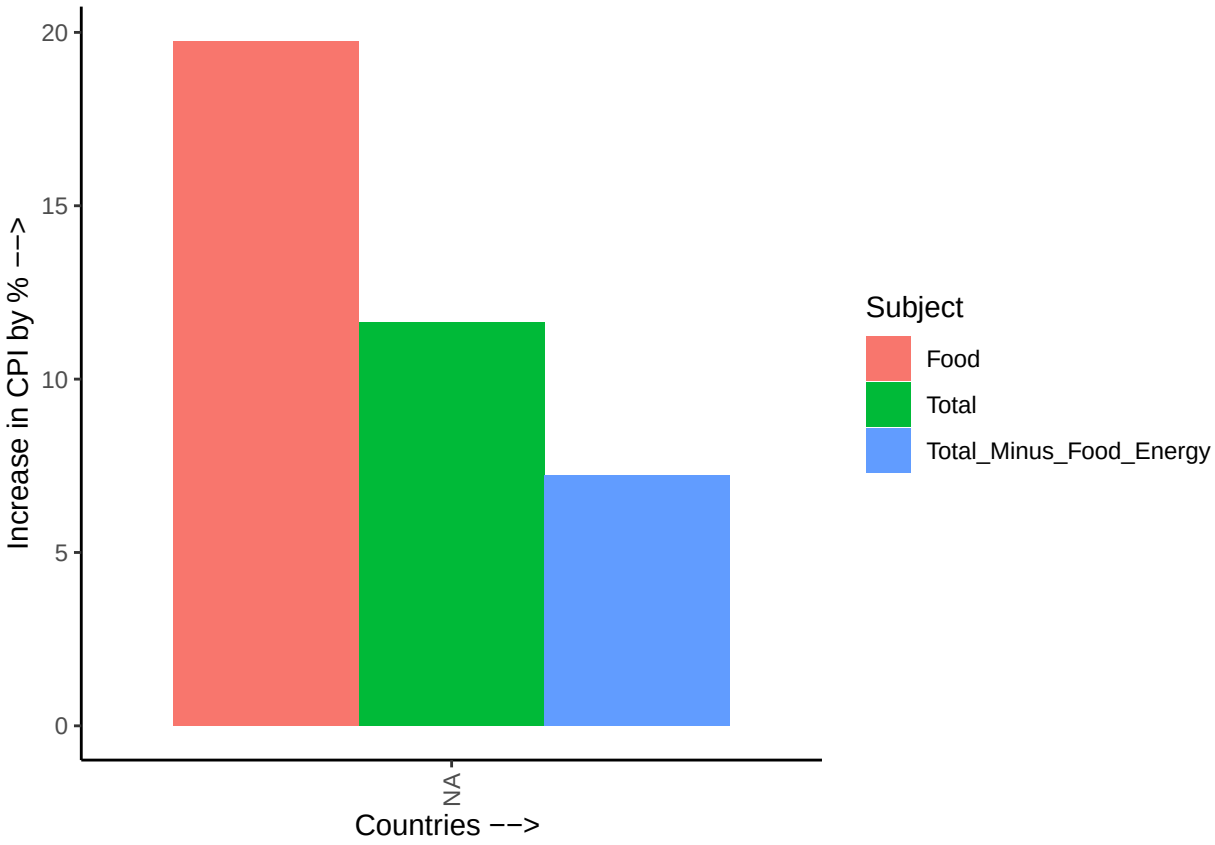
```
                            "CAN" = "CANADA",
                            "ESP" = "SPAIN",
                            "ITA" = "ITALY",
                            "FRA" = "FRANCE",
                            "NLD" = "NETHERLANDS")) %>%
  filter(Subject != "Energy")


order <- sav %>%
  group_by(Location) %>%
  summarise(sum = sum(Percentage)) %>%
  arrange(desc(sum)) %>%
  select(Location) %>%
  unlist() %>%
  unname()

sav %>%
  ggplot(aes(x = factor(Location,  levels = order), y = Percentage, colour = factor(Subject))) +
  geom_point(size = 2.5, position = position_dodge(0.5)) +
  geom_linerange(aes(ymin = 0, ymax = Percentage),
                 linetype = "dotted", position = position_dodge(0.5)) +
  scale_fill_manual(values = c("#1b9e77", "#d95f02", "green"),
                    name = NULL,
                    labels = c("Food", "Total", "Total Minus")) +
  coord_flip() +
  xlab("Countries --> ") +
  ylab("Increase in CPI by % -->") +
  scale_color_manual(values = c("Food" = "#009E73", "Total" = "#CC79A7",
                                "Total_Minus_Food_Energy" = "#F0E442")) +
  labs(colour = "CPI value for")+
  facet_grid(~Subject, labeller = as_labeller(c("Food" = "Food",
                                                "Total" = "Total",
                                                "Total_Minus_Food_Energy" =
                                                "Items Other than Food and Energy")))+
  theme_bw() +
  theme(legend.position="bottom")
```




```
sav %>%
  ggplot(aes(x = factor(Location, order), y = Percentage,
                       fill = ifelse(Location == "IRELAND","red", "blue"))) +
  geom_col(size=0.2, position="dodge")+
  xlab("Countries --> ") +
  ylab("Increase in CPI by % -->")+
  facet_grid(~Subject)+
  theme_classic()+
  coord_flip()+
  theme(axis.text.x = element_text(angle = 90, vjust = 0.5, hjust=1),
        legend.position = "top")
```

```
## Warning: Using ‘size‘ aesthetic for lines was deprecated in ggplot2 3.4.0.
## i Please use ‘linewidth‘ instead.
```


```
sav %>%
  ggplot(aes(x = factor(Location, levels = c("IRL", "AUS", "USA", "DEU", "CAN", "ESP", "ITA", "FRA")), y
  geom_col(size=0.2, position="dodge")+
  xlab("Countries --> ") +
  ylab("Increase in CPI by % -->")+
  theme_classic()+
  theme(axis.text.x = element_text(angle = 90, vjust = 0.5, hjust=1))
```


20
15
10
5
0
Increase in CPI by % −−>
NA
Countries −−>
Subject
Food
Total
Total_Minus_Food_Energy