

```
#Check working directory
getwd()
```

```
#read trade raw data
rawdata.jan_april2019 <- read.csv("2019_Jan-April - comtrade
goods(detail).csv", header = TRUE, sep = ",")
```

```
head(rawdata.jan_april2019)
```

```
is.data.frame(rawdata.jan_april2019)
str(rawdata.jan_april2019)
```

```
rawdata.may_aug2019 <- read.csv("2019_May-Aug - comtrade goods(detail).csv",
header = TRUE, sep = ",")
```

```
head(rawdata.may_aug2019)
is.data.frame(rawdata.may_aug2019)
str(rawdata.may_aug2019)
```

```
rawdata.sept_dec2019 <- read.csv("2019_Sept-Dec - comtrade goods(detail).csv",
header = TRUE, sep = ",")
head(rawdata.sept_dec2019)
is.data.frame(rawdata.sept_dec2019)
str(rawdata.sept_dec2019)
```

```
rawdata.jan_april2020 <- read.csv("2020_Jan-Apr - comtrade goods(detail).csv",
header = TRUE, sep = ",")
head(rawdata.jan_april2020)
is.data.frame(rawdata.jan_april2020)
str(rawdata.jan_april2020)
```

```
#select and combine column $Period, $Reporter and $Mode.of.Transport as
dataframe
```

```
newdata.jan_april2019 <-
data.frame(rawdata.jan_april2019$Period,rawdata.jan_april2019$Reporter,rawdata.jan_april2019$Mode.of.Transport)
head(newdata.jan_april2019)
str(newdata.jan_april2019)
```

```
newdata.may_aug2019 <-
data.frame(rawdata.may_aug2019$Period,rawdata.may_aug2019$Reporter,rawdata.may_aug2019$Mode.of.Transport)
head(newdata.may_aug2019)
str(newdata.may_aug2019)
```

```
newdata.sept_dec2019 <-
data.frame(rawdata.sept_dec2019$Period,rawdata.sept_dec2019$Reporter,rawdata.sept_dec2019$Mode.of.Transport)
head(newdata.sept_dec2019)
str(newdata.sept_dec2019)
```

```
newdata.jan_april2020 <-
data.frame(rawdata.jan_april2020$Period,rawdata.jan_april2020$Reporter,rawdata.jan_april2020$Mode.of.Transport)
head(newdata.jan_april2020)
```

```

str(newdata.jan_april2020)

#rename variable
library(data.table)

var.name <- c("Year_Month", "Country", "Mode.of.Transport")
setnames(newdata.jan_april2019, var.name)
head(newdata.jan_april2019)
str(newdata.jan_april2019)

setnames(newdata.may_aug2019, var.name)
head(newdata.may_aug2019)
str(newdata.may_aug2019)

setnames(newdata.sept_dec2019, var.name)
head(newdata.sept_dec2019)
str(newdata.sept_dec2019)

setnames(newdata.jan_april2020, var.name)
head(newdata.jan_april2020)
str(newdata.jan_april2020)

#Combine all data frame
library("dplyr")

bind_rows(newdata.jan_april2019, newdata.may_aug2019, newdata.sept_dec2019, newdata.jan_april2020)

trade.2019_2020 <-
bind_rows(newdata.jan_april2019, newdata.may_aug2019, newdata.sept_dec2019, newdata.jan_april2020)
head(trade.2019_2020)

trade.2019 <-
bind_rows(newdata.jan_april2019, newdata.may_aug2019, newdata.sept_dec2019)
head(trade.2019)

#format date by splitting year and month
trade.2019_2020 <-
bind_rows(newdata.jan_april2019, newdata.may_aug2019, newdata.sept_dec2019, newdata.jan_april2020)
head(trade.2019_2020)
trade.2019_2020$Year_Month<- format(as.Date(paste(trade.2019_2020$Year_Month,
'01'), '%Y%m%d'), '%b-%Y')
head(trade.2019_2020)

trade.2019 <-
bind_rows(newdata.jan_april2019, newdata.may_aug2019, newdata.sept_dec2019)
head(trade.2019)
trade.2019$Year_Month <- format(as.Date(paste(trade.2019_2020$Year_Month,
'01'), '%Y%m%d'), '%b-%Y')
head(trade.2019)

#Check NA value in dataframe

```

```
sum(is.na(trade.2019_2020))
```

```
#Write data frame in csv file
```

```
write.csv(newdata.jan_april2020,file = "Trade Value Data 2020.csv")
```

```
write.csv(trade.2019_2020, file = "Trade Value Data 2019 - 2020.csv")
```

```
write.csv(trade.2019, file = "Trade Value Data 2019.csv")
```