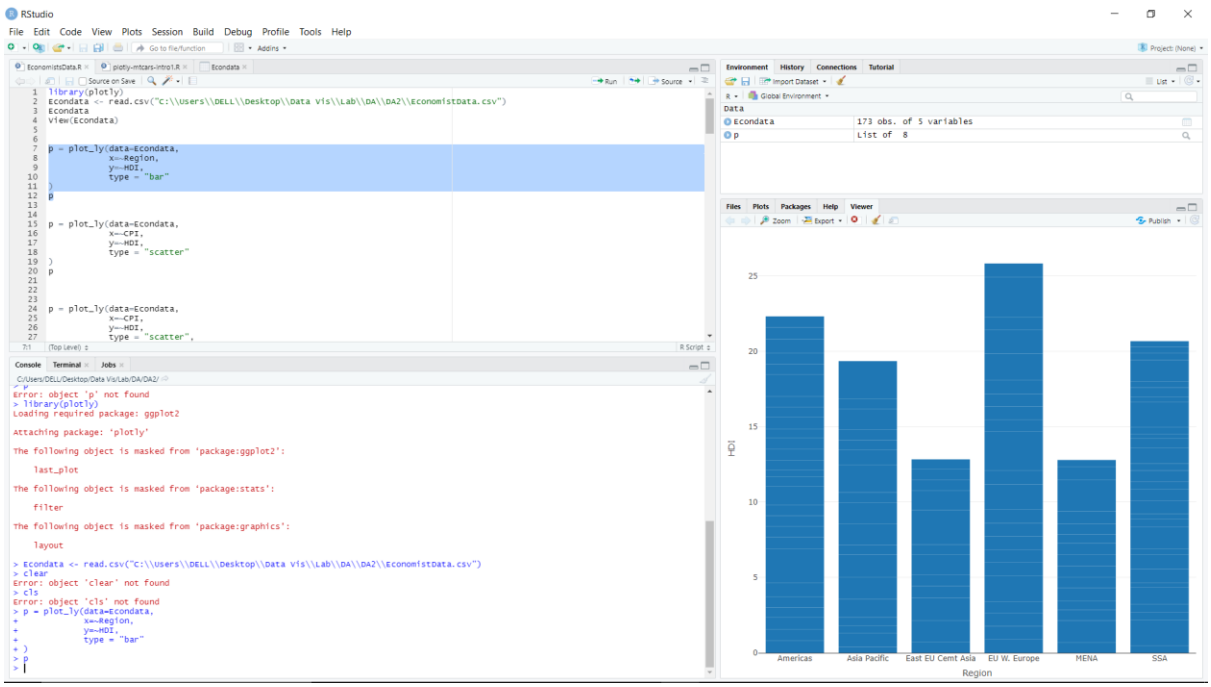
```
library(plotly)

Econdata <- read.csv("C:\\Users\\DELL\\Desktop\\Data Vis\\Lab\\DA\\DA2\\EconomistData.csv")

Econdata

View(Econdata)
```

• Create stacked bar chart for Rank(group based on Region).

```
p = plot_ly(data=Econdata,
            x=~Region,
            y=~HDI,
            type = "bar"
)
p
```



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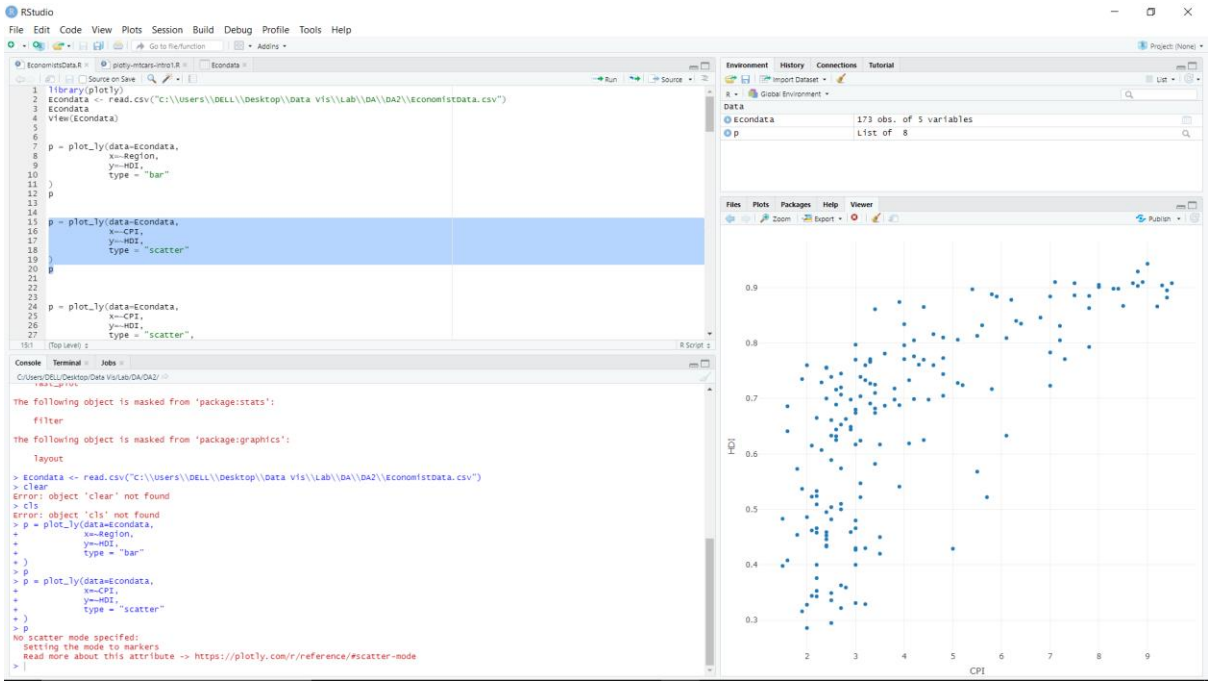
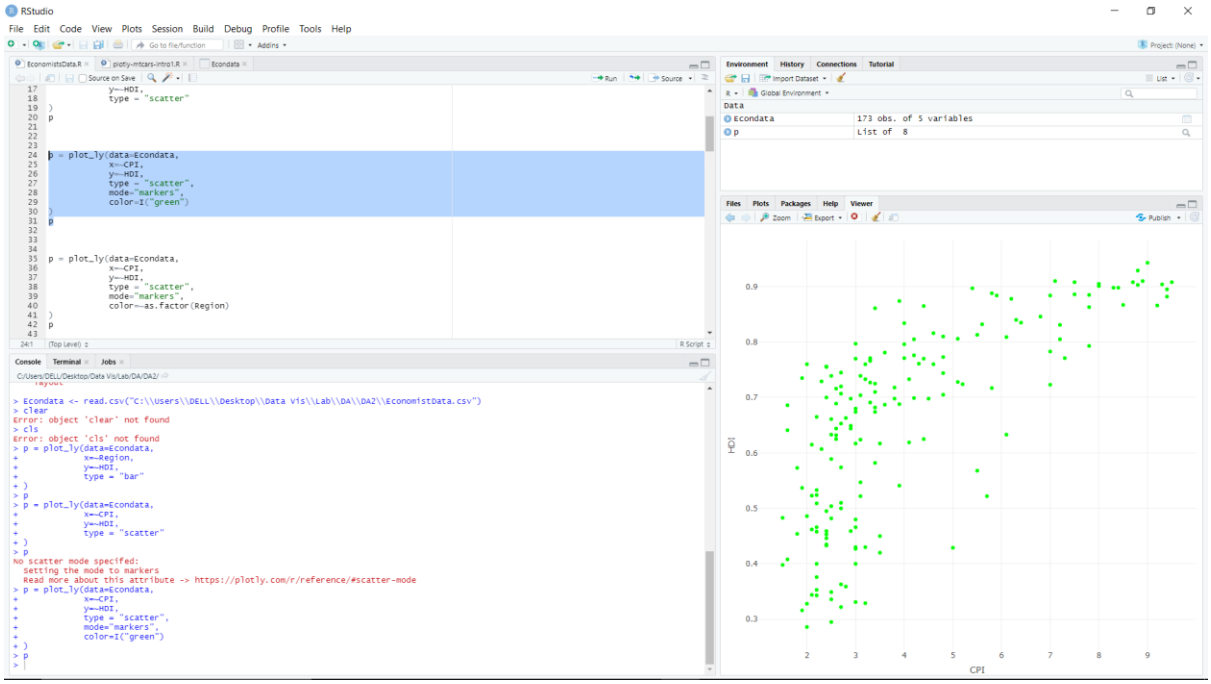
- **Create a scatter plot with CPI on the x axis and HDI on the y axis.**

```
p = plot_ly(data=Econdata,
        x=~CPI,
        y=~HDI,
        type = "scatter"
)
P
```



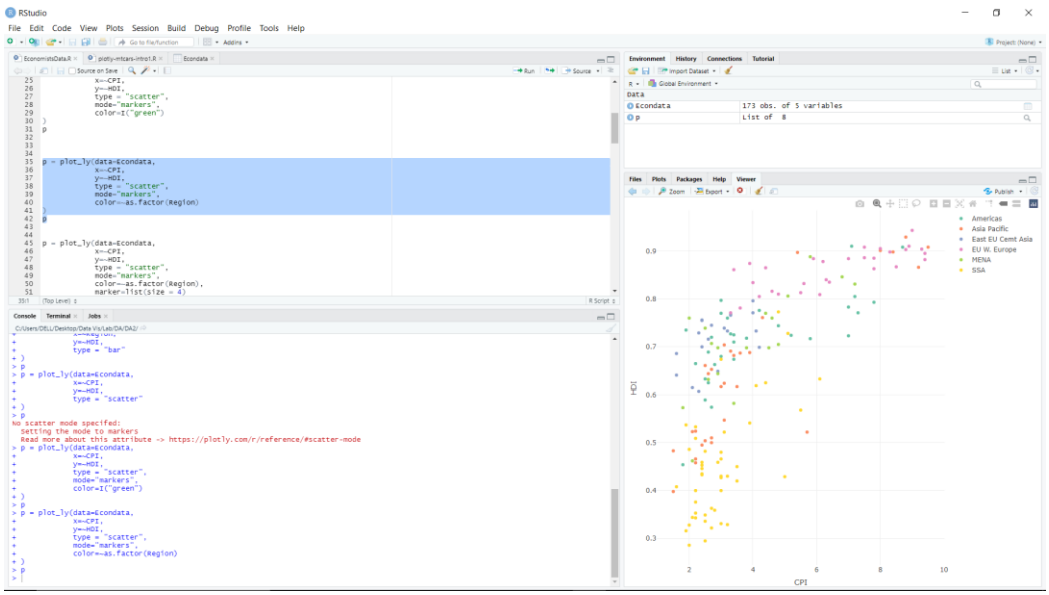
- **Colour the points green.**

```
p = plot_ly(data=Econdata,
        x=~CPI,
        y=~HDI,
        type = "scatter",
        mode="markers",
        color=I("green")
)
P
```



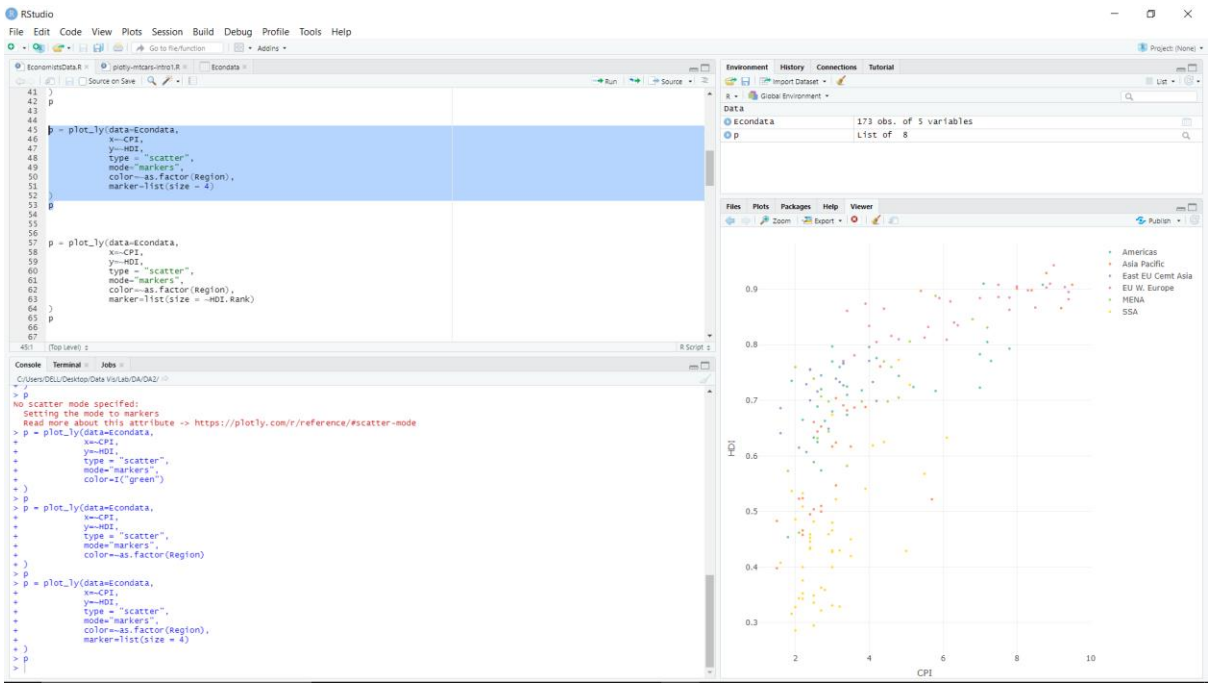
- **Map the color of the points to Region.**

```
p = plot_ly(data=Econdata,
            x=~CPI,
            y=~HDI,
            type = "scatter",
            mode="markers",
            color=~as.factor(Region)
)
P
```



- **Make the points bigger by setting size to 4**

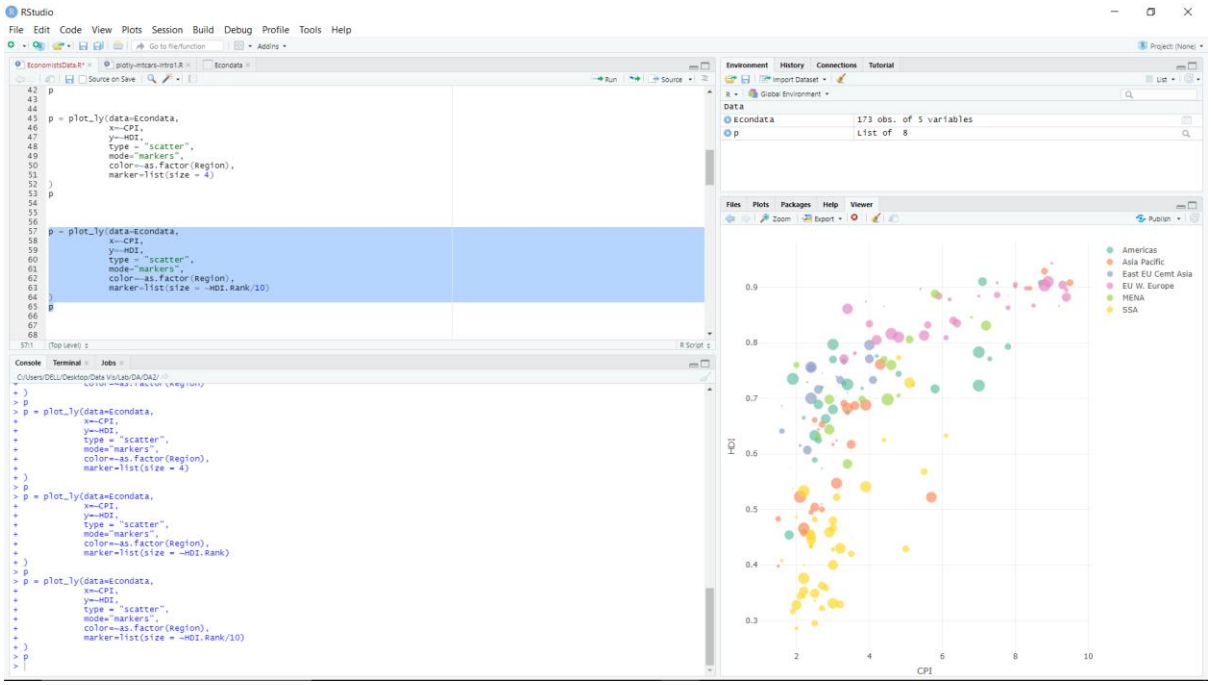
```
p = plot_ly(data=Econdata,
        x=~CPI,
        y=~HDI,
        type = "scatter",
        mode="markers",
        color=~as.factor(Region),
        marker=list(size = 4)
)
P
```



- **Map the size of the points to HDI.Rank**

```
p = plot_ly(data=Econdata,
        x=~CPI,
        y=~HDI,
        type = "scatter",
        mode="markers",
        color=~as.factor(Region),
        marker=list(size = ~HDI.Rank/10)
)
```

P



• Mapping Data to Symbols

```
p = plot_ly(data=Econdata,
        x=~CPI,
        y=~HDI,
        type = "scatter",
        mode="markers",
        color=~as.factor(Region),
        text = ~paste("HDI Rank: ", HDI.Rank),
        symbol=~Region,
        symbols=c('diamond','x','triangle-up-dot','square','circle-dot','star'),
        marker=list(size = 7)
)
P
```

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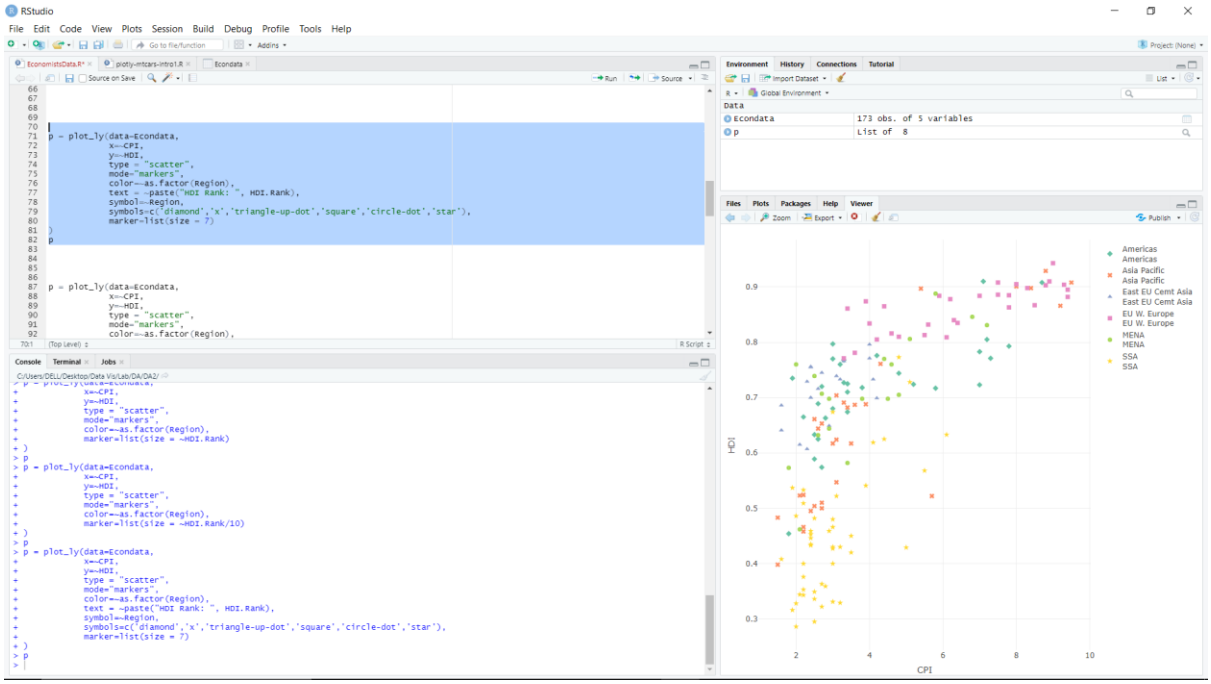

- **HDI.Rank-Data Labels on Hover**

```
p = plot_ly(data=Econdata,
        x=~CPI,
        y=~HDI,
        type = "scatter",
        mode="markers",
        color=~as.factor(Region),
        text = ~paste("HDI Rank: ", HDI.Rank),
        symbol=~Region,
        symbols=c('diamond','x','triangle-up-dot','square','circle-dot','star'),
        marker=list(size = 7)
)
P
```

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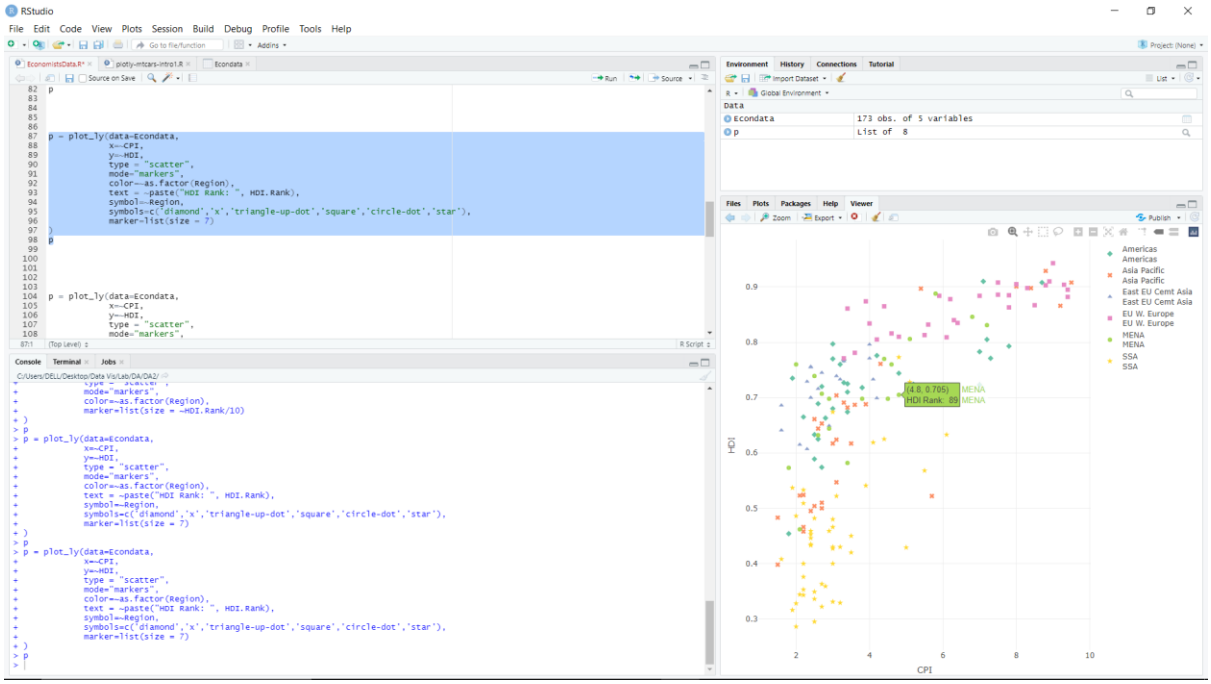

• a. Add an appropriate title to the plot using the layout function and title argument.

b. Add an appropriate x-axis label using the xaxis argument. xaxis takes a list of attribute values.

c. Add an appropriate y-axis label.

```
p = plot_ly(data=Econdata,
        x=~CPI,
        y=~HDI,
        type = "scatter",
        mode="markers",
        color=~as.factor(Region),
        text = ~paste("HDI Rank: ", HDI.Rank),
        symbol=~Region,
        symbols=c('diamond','x','triangle-up-dot','square','circle-dot','star'),
        marker=list(size = 7)
        )%>%
layout(title="Economists data",
     xaxis=list(title="CPI"),
     yaxis=list(title="HDI"))
p
```

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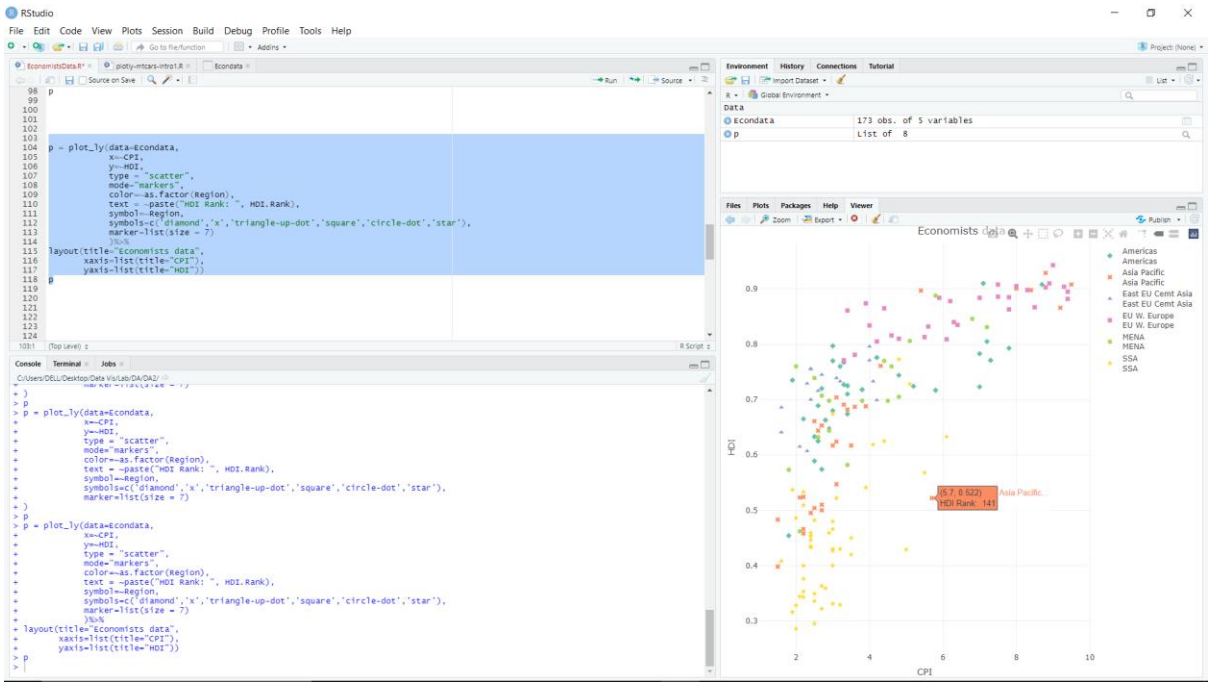
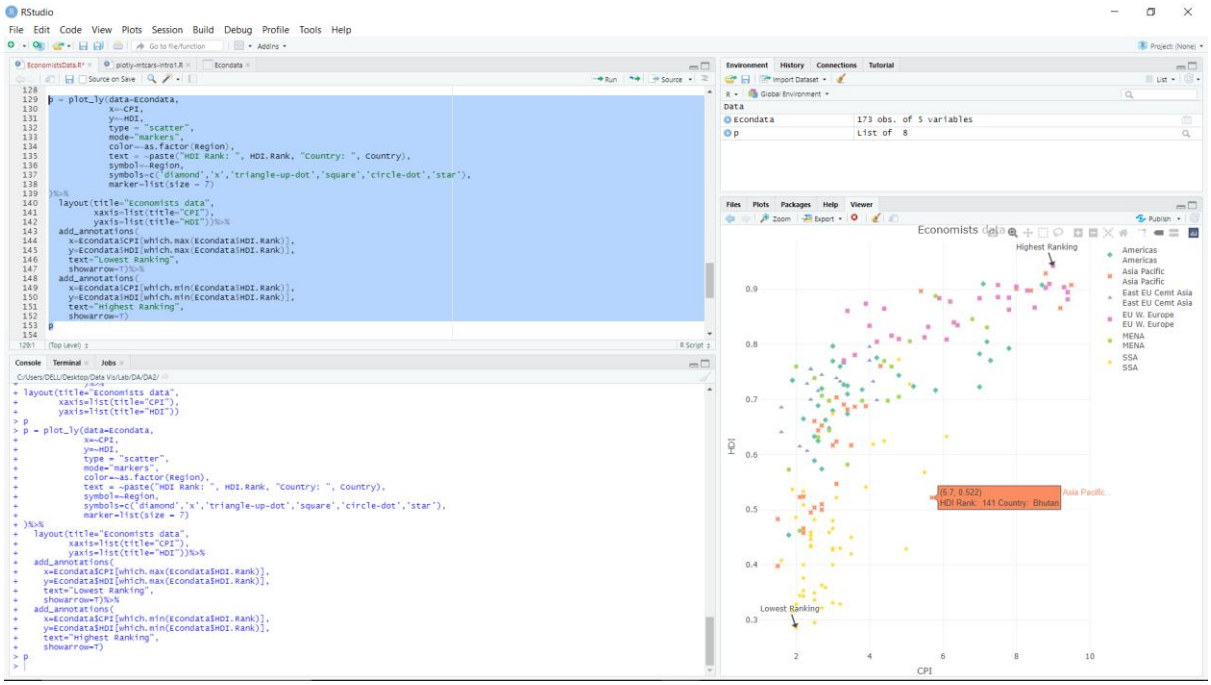


• display annotations for country which top and lowest HDI.Rank

```
p = plot_ly(data=Econdata,
            x=~CPI,
            y=~HDI,
            type = "scatter",
            mode="markers",
            color=~as.factor(Region),
            text = ~paste("HDI Rank: ", HDI.Rank, "Country: ", Country),
            symbol=~Region,
            symbols=c('diamond','x','triangle-up-dot','square','circle-dot','star'),
            marker=list(size = 7)
)%>%
  layout(title="Economists data",
         xaxis=list(title="CPI"),
         yaxis=list(title="HDI"))%>%
  add_annotations(
    x=Econdata$CPI[which.max(Econdata$HDI.Rank)],
    y=Econdata$HDI[which.max(Econdata$HDI.Rank)],
```

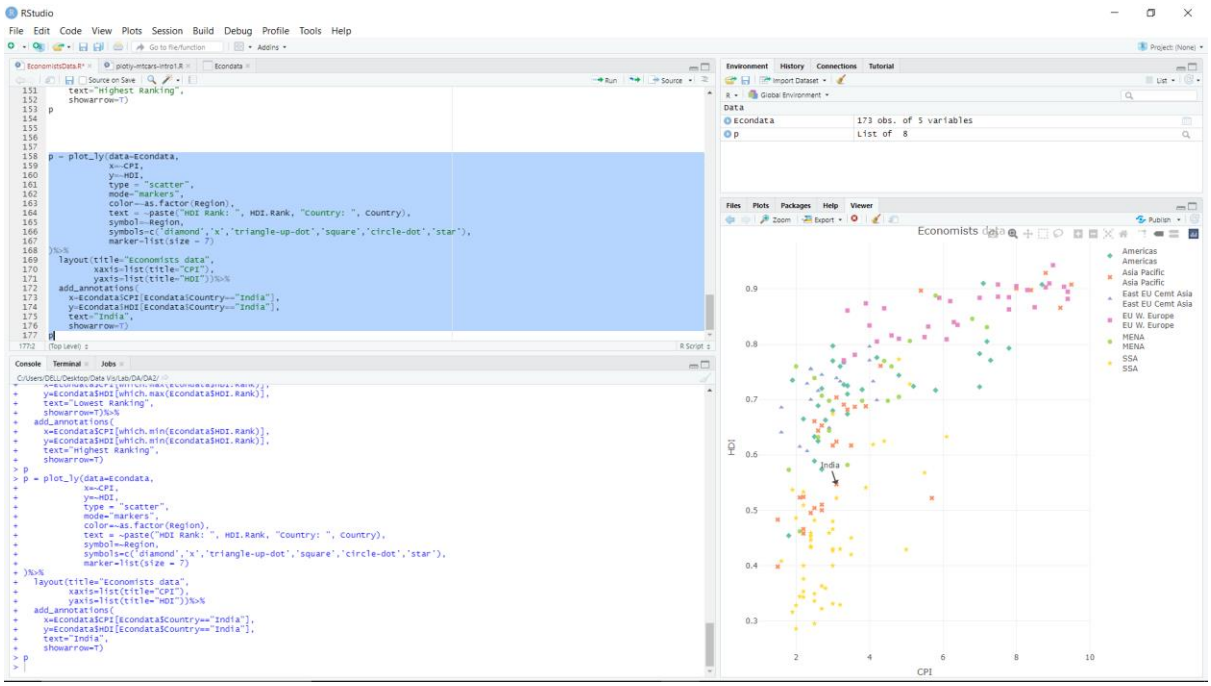
```
  text="Lowest Ranking",
  showarrow=T)%>%
 add_annotations(
  x=Econdata$CPI[which.min(Econdata$HDI.Rank)],
  y=Econdata$HDI[which.min(Econdata$HDI.Rank)],
  text="Highest Ranking",
  showarrow=T)
p
```



• display annotations for our country (data label with HDI.Rank)

```
p = plot_ly(data=Econdata,
            x=~CPI,
            y=~HDI,
            type = "scatter",
            mode="markers",
            color=~as.factor(Region),
            text = ~paste("HDI Rank: ", HDI.Rank, "Country: ", Country),
            symbol=~Region,
            symbols=c('diamond','x','triangle-up-dot','square','circle-dot','star'),
```

```
        marker=list(size = 7)
)%>%
 layout(title="Economists data",
        xaxis=list(title="CPI"),
        yaxis=list(title="HDI"))%>%
 add_annotations(
   x=Econdata$CPI[Econdata$Country=="India"],
   y=Econdata$HDI[Econdata$Country=="India"],
   text="India",
   showarrow=T)
p
```



• Save plot

```
jpeg("rplot.jpg")
 p =plot_ly(data=Econdata,
        x=~CPI,
        y=~HDI,
        type = "scatter",
        mode="markers",
```

```
        color=~as.factor(Region),
        text = ~paste("HDI Rank: ", HDI.Rank, "Country: ", Country),
        symbol=~Region,
        symbols=c('diamond','x','triangle-up-dot','square','circle-dot','star'),
        marker=list(size = 7)
)%>%
 layout(title="Economists data",
      xaxis=list(title="CPI"),
      yaxis=list(title="HDI"))%>%
 add_annotations(
   x=Econdata$CPI[Econdata$Country=="India"],
   y=Econdata$HDI[Econdata$Country=="India"],
   text="India",
   showarrow=T)
p
dev.off()
```