IrisAnalysis

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Installing appropriate version of used packages

```
renv::restore()
```

```
## - The library is already synchronized with the lockfile.
```

```
#Loading packages
library(tidyverse)
```

```
## Warning: package 'tidyverse' was built under R version 4.3.3
```

```
## Warning: package 'tibble' was built under R version 4.3.3
```

```
## Warning: package 'tidyr' was built under R version 4.3.3
```

```
## Warning: package 'readr' was built under R version 4.3.3
```

```
## Warning: package 'dplyr' was built under R version 4.3.3
```

```
## Warning: package 'lubridate' was built under R version 4.3.3
```

```
## -- Attaching core tidyverse packages ------------------------ tidyverse 2.0.0 --
## v dplyr     1.1.4     v readr     2.1.5
## v forcats   1.0.0     v stringr   1.5.2
## v ggplot2   4.0.0     v tibble    3.2.1
## v lubridate 1.9.4     v tidyr     1.3.1
## v purrr     1.1.0
## -- 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
```

Initialize renv

Initializing renv creats a `renv` folder, a `renv.lock` and `.Rprofile`

```
#Make it so project use renv
#renv::init()
```

To update the lockfile we use `renv::snapshot`

Update the lockfile

```
#renv::snapshot()
```

```
#Uploading iris data
data(iris)
head(iris)
```

```
##   Sepal.Length Sepal.Width Petal.Length Petal.Width Species
## 1          5.1         3.5          1.4         0.2  setosa
## 2          4.9         3.0          1.4         0.2  setosa
## 3          4.7         3.2          1.3         0.2  setosa
## 4          4.6         3.1          1.5         0.2  setosa
## 5          5.0         3.6          1.4         0.2  setosa
## 6          5.4         3.9          1.7         0.4  setosa
```

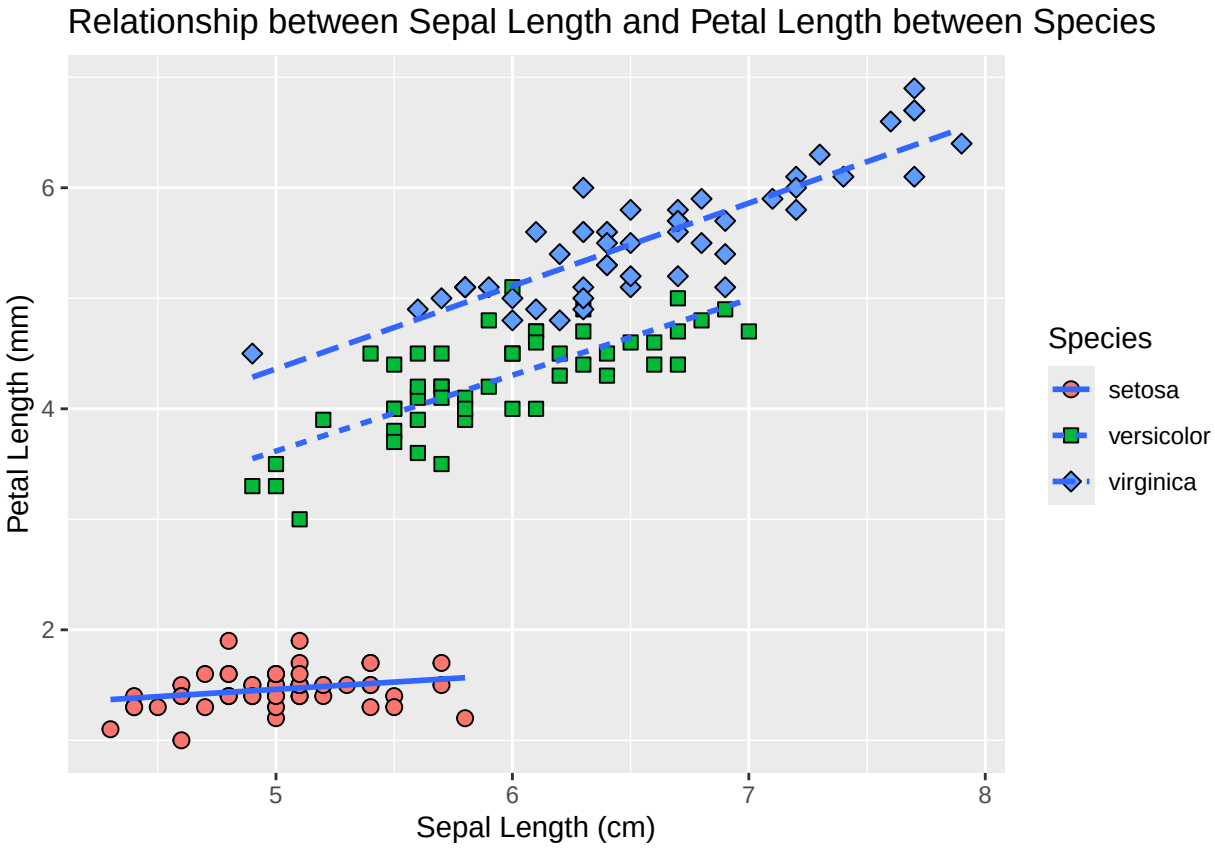
Data manipulation

```
iris<-iris%>%
  arrange(Sepal.Length)
```

Plotting data

```
iris%>%
  ggplot(aes(x=Sepal.Length,y=Petal.Length))+
  geom_point(aes(fill = Species,shape=Species),size=2.5,color="black")+
  geom_smooth(aes(group = Species,linetype=Species),method = "lm",se=FALSE)+
  scale_shape_manual(values = 21:23)+
  labs(title="Relationship between Sepal Length and Petal Length between Species",
       y="Petal Length (mm)",x="Sepal Length (cm)")
```

```
## `geom_smooth()` using formula = 'y ~ x'
```


Relationship between Sepal Length and Petal Length between Species
Petal Length (mm)
Sepal Length (cm)
2
4
6
5
6
7
8
Species
setosa
versicolor
virginica