

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 creates 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(params$data)
```

```
## Warning in data(params$data): data set 'params$data' not found
```

```
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

```
IrisPlot <- 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)")

ggsave("IrisCorrSepalLPetalL.png",plot=IrisPlot,path = params$output_figures)
```

```
## Saving 6.5 x 4.5 in image
## 'geom_smooth()' using formula = 'y ~ x'
```

IrisPlot

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

