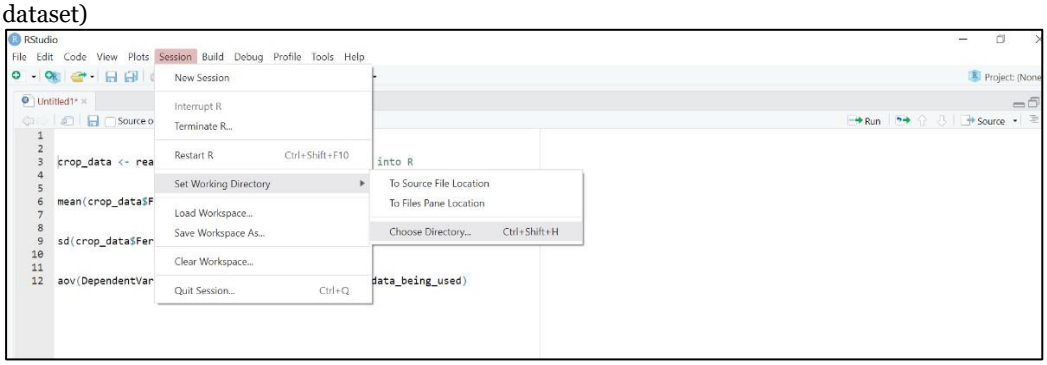
Pictorial Week 3 : Multiple Linear Regression

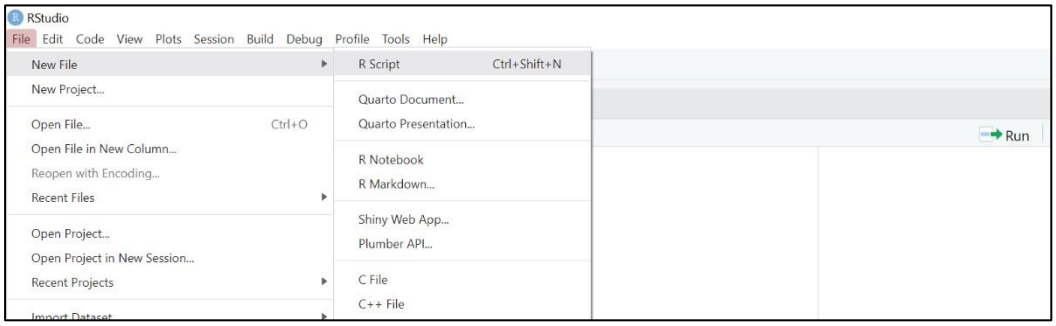
How to: Set Working Directory

Session > Set Working Directory > Choose Directory (Pick the folder where you saved the downloaded dataset)



How to: Open A New R Script

File > New File > R Script



How to: Import Dataset

The 50_Startups.csv dataset is used to demonstrate.

```
startup_data <- read.csv("50_Startups.csv") #import the data into RStudio
```

How to: Generate a correlation matrix using cor() function

```
cor(startup_data[,1:4]) #generate correlation matrix of the first 4 columns of data
```

On the cheat sheet:

26	lm(y ~ x1 + x2 + x3)	Fits a multiple linear regression model of y as a function of variables x1, x2 and x3

How to: Perform a multiple linear regression

```
objectName <- lm(Profit~Spending+Administration+Marketing+State+Spending*Marketing, data=startup_data)
```

How to: Apply the summary() function

```
summary(objectName)
```

How to: Apply the confint() function

```
confint(objectName)    #to generate 95% confidence intervals
```

How to: Apply the predict() function

```
predict(objectName)    #to find out estimated Profit
```
