

Soil Status (first project)

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this is headline one

this is headline two

this is headline three

now I will create the bullet list

- fist one is the sandy soil
- 2nd one is the clay soil
- 3rd one is loamy soil

now create an numbered list

1. hi
2. hello
3. hallo

this is for the bold and italic

- **high bold**
- *italic*
- ***Italic with bold***

add blockquotes

this is the blockquotes.

inline equation

- fertilizer formula: $N + P + K = \text{Fertilizer Rate}$

block equation

$$Y = a + bX$$

[link](#)

[youtube](#)

[image](#)



Figure 1: figure:1

[inline code](#)

use R to analyze data

Code Block

```
data = read.csv("soil_data.csv")
summary(data)
```

```
## Soil_Sample          pH      Nitrogen   Phosphorus Potassium
```

```

##  Length:5          Min.   :5.80   Min.   :18   Min.   :12.0  Min.   :35
##  Class  :character  1st Qu.:5.90  1st Qu.:20  1st Qu.:14.0  1st Qu.:38
##  Mode   :character  Median :6.20   Median :22   Median :15.0  Median :40
##                               Mean   :6.28   Mean   :23   Mean   :15.4  Mean   :41
##                               3rd Qu.:6.50  3rd Qu.:25  3rd Qu.:16.0  3rd Qu.:42
##                               Max.   :7.00   Max.   :30   Max.   :20.0  Max.   :50
##  Organic_Matter  Soil_Type
##  Min.   :1.80   Length:5
##  1st Qu.:1.90  Class  :character
##  Median :2.20   Mode   :character
##  Mean   :2.28
##  3rd Qu.:2.50
##  Max.   :3.00

```

#this is just showing the dataset in simple table form

```

##  Soil_Sample  pH Nitrogen Phosphorus Potassium Organic_Matter Soil_Type
##  1           S1  6.2     25       15      40        2.5    Loam
##  2           S2  5.8     18       12      35        1.8    Clay
##  3           S3  7.0     30       20      50        3.0    Sandy
##  4           S4  6.5     22       16      42        2.2    Loam
##  5           S5  5.9     20       14      38        1.9    Clay

```

#this is making the table more customize

```
library(knitr)
```

```
## Warning: package 'knitr' was built under R version 4.4.3
```

```
kable(data, caption = "just practicing")
```

Table 1: just practicing

Soil_Sample	pH	Nitrogen	Phosphorus	Potassium	Organic_Matter	Soil_Type
S1	6.2	25	15	40	2.5	Loam
S2	5.8	18	12	35	1.8	Clay
S3	7.0	30	20	50	3.0	Sandy
S4	6.5	22	16	42	2.2	Loam
S5	5.9	20	14	38	1.9	Clay

```
library(ggplot2)
```

```
## Warning: package 'ggplot2' was built under R version 4.4.3
```

```
ggplot(data, aes(Soil_Sample, Nitrogen, fill= Soil_Sample))+
  geom_bar(stat = "identity")+
  theme_minimal()
```

