Hochschule Konstanz
Fakultät Informatik

Data Analysis

Week 1 (Simple Stuff)

1-D Linear regression

a) Loading

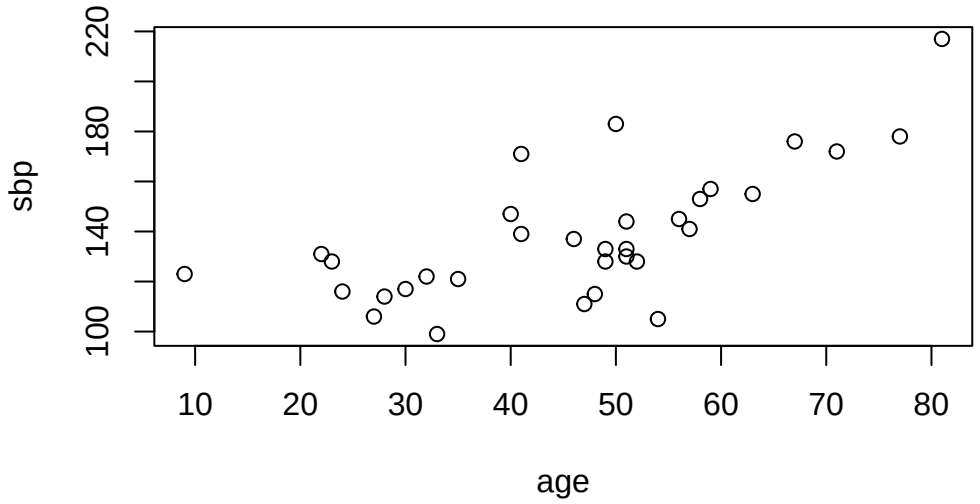
Load the dataset. You might use

```
df = read.csv('https://raw.githubusercontent.com/tensorchiefs/data/main/data/sbp.csv')
```

b) Scatterplot

Create a plot of the data, the x-axis should be `age` and the y-axis should be `sbp`.

```
plot(df$x, df$y, xlab = "age", ylab = "sbp")
```



c) Linear regression

Fit a linear regression model to the data. How much does the blood pressure increase per year?

```
model = lm(y ~ x, data = df)
coef(model)
```

```
(Intercept)           x
  87.671422    1.105022
```

Reading from the output above, we can see that the blood pressure increases by $a=1.105$ mmHg

Too easy?

a) Loading

Load the dataset. You might use

```
df = read.csv('https://raw.githubusercontent.com/tensorchiefs/data/main/data/sbp.csv')
```

b) Average age

Calculate the average age of the participants.

```
mean(df$x)
```

```
[1] 46.12121
```