

DBKDA-2016 Tutorial II:

Hands-On Exercise 1

1. Install R from <https://www.r-project.org/>
2. Start the R environment
3. Set the values of two variables

```
x<-12  
y<-6
```
4. Calculate the sum:

```
x+y
```
5. Define a vector with two elements:

```
vec<-c(x,y)
```
6. Show the content of the vector

```
vec
```
7. Calculate the mean of the values

```
mean(vec)
```
8. Calculate the standard derivation

```
sd(vec)
```
9. Generate 100 random numbers (normal distribution with mean=0, sd=1) and store them in a vector with name „n“

```
n<-rnorm(100)
```
10. Show the generated vector

```
n
```
11. Give some information about the „rnorm“ function:

```
help(rnorm)
```
12. Print a histogram of the values

```
hist(n)
```
13. Give some information about the function „hist“

```
help(hist)
```
14. Your first job: change the number of intervals to 20

```
...
```

15. Create a file with the following content and store it somewhere on disk (with name „hands-on-1-batch.R“):

```
x<-seq(from=-10, to=10, by=0.1)
```

```
my.first.func<-function(x) {  
  return (sin(x) * 2)  
}
```

```
y<-my.first.func(x)  
plot(x,y)
```

16. Execute the script with the following command:

```
source("<path-to-script>/hands-on-1-batch.R")
```