

```
assignment_02b.R x
Source on Save
my_matrix Next Prev All M1 Replace All
In selection Match case Whole word Regex Wrap
1 set.seed(1243)
2 n=10
3 m=10
4 M1 =replicate(n,rnorm(m))
5 my_df=data.frame(M1)
6 my_df
26.11 (Top Level) z R Script z

Console ~/ /
> set.seed(1243)
> n=10
> m=10
> M1 =replicate(n,rnorm(m))
> my_df=data.frame(M1)
> my_df
      X1      X2      X3      X4      X5      X6      X7      X8      X9      X10
1 -0.3783951 0.1035205587 0.91588277 -1.1029781 -1.2936713 0.9745872 0.19793817 1.4413814 -0.2682319 0.1336230
2 -1.0222175 -0.2564901310 1.07598653 -0.8115787 1.1236948 -0.2410133 0.89778135 0.9812424 1.6980120 1.1194686
3 -0.7099549 -1.1768192153 1.84252850 -0.5929241 -0.5033020 0.4411741 0.82804697 1.0720750 1.1110381 0.4291534
4 0.8275493 0.9523939201 -0.09360686 1.6344844 1.2987801 1.3320811 -0.25731749 0.7971401 0.6955465 0.9441542
5 -0.2130393 1.0621047995 1.66861056 2.1445102 -0.9157677 -0.4397274 0.63658088 -1.9729550 -0.7475074 -1.4248278
6 -0.5900282 0.1587904499 -0.83726994 -0.3122947 0.3129355 -0.3445398 -0.01214152 -1.7080202 -0.9051477 0.7966293
7 -0.8733789 -0.3225965649 2.31604967 -0.1572580 1.4624429 -1.9072221 -1.82307202 -0.3661375 0.3009489 0.4071296
8 -0.6356738 0.4402853986 -1.20776918 -1.7905876 0.6498121 -0.6364390 1.10173916 -0.2274913 0.2043302 -0.4339170
9 1.7300897 0.0004689904 -0.91973871 -1.4325471 -0.3521969 1.1677970 -0.04138613 -1.2071235 1.0478689 0.2208177
10 -1.4302437 -0.8915337105 -0.38687942 -0.5268078 1.2697456 1.9588613 0.82018644 0.4849693 -1.9957945 -0.3231206
> system.time(
+   for (i in 1:n)
+   {
+     for (j in 1:m)
+     {
+       my_df[i,j]=my_df[i,j]+(10*sin(0.75*pi))
+     }
+   }
+ )
user system elapsed
0.008 0.000 0.008
> #print(my_df)
> #vectorized
> set.seed(1243)
> n=10
> m=10
> M1 =replicate(n,rnorm(m))
> my_df= data.frame(M1)
> system.time(my_df<-my_df + 10*sin(0.75*pi))
user system elapsed
0.001 0.000 0.001
>
```