

```

> set.seed(123)
> n=10
> m=10
> my_matrix =replicate(n,rnorm(m))
> my_df=data.frame(my_matrix)
> #my_df
> 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
 0.02   0.00   0.02
> #print(my_df)
> #vectorized
> set.seed(123)
> n=10
> m=10
> my_matrix =replicate(n,rnorm(m))
> my_df= data.frame(my_matrix)
> system.time(my_df<-my_df + 10*sin(0.75*pi))
   user  system elapsed
    0      0      0
> #print(my_df)
> #Non vectorized takes longer than vectorized
> |

```