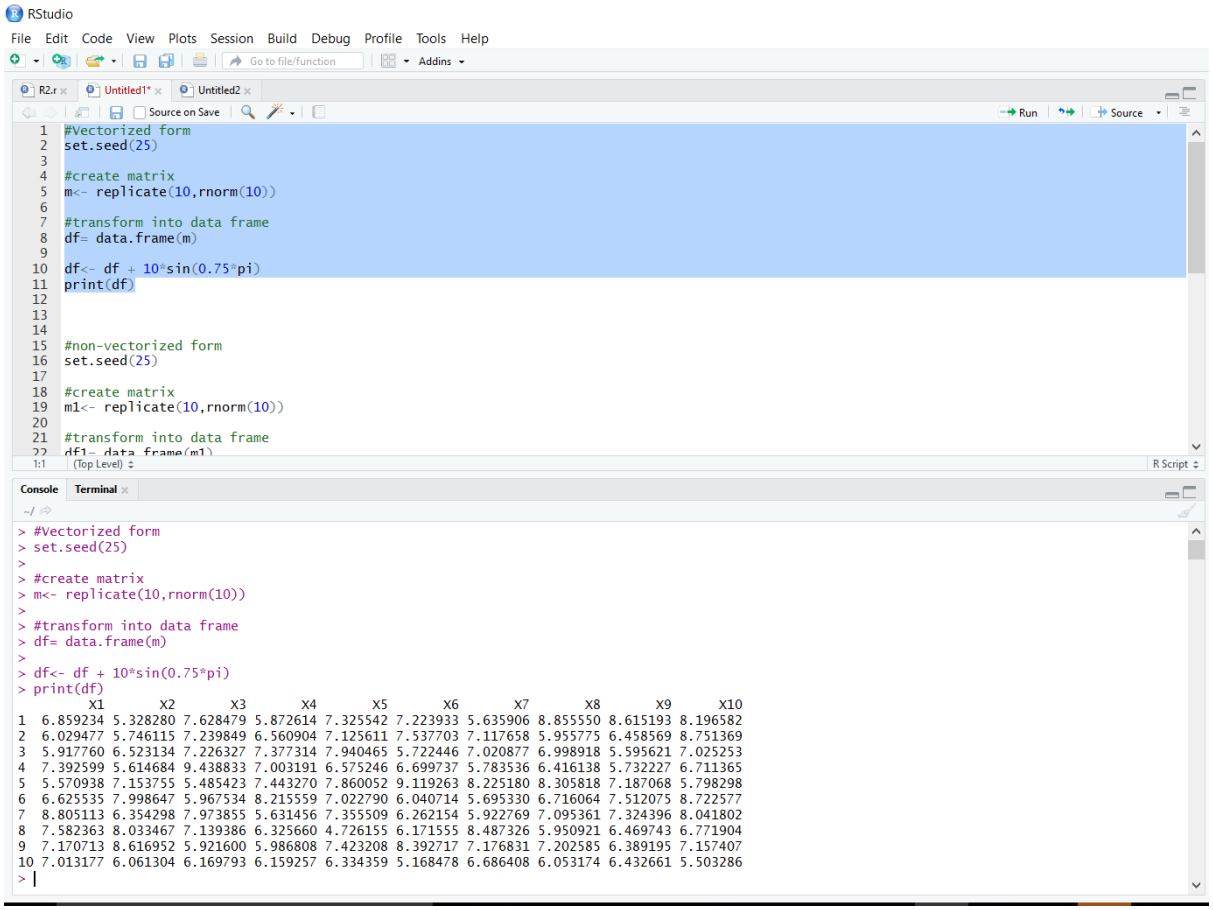
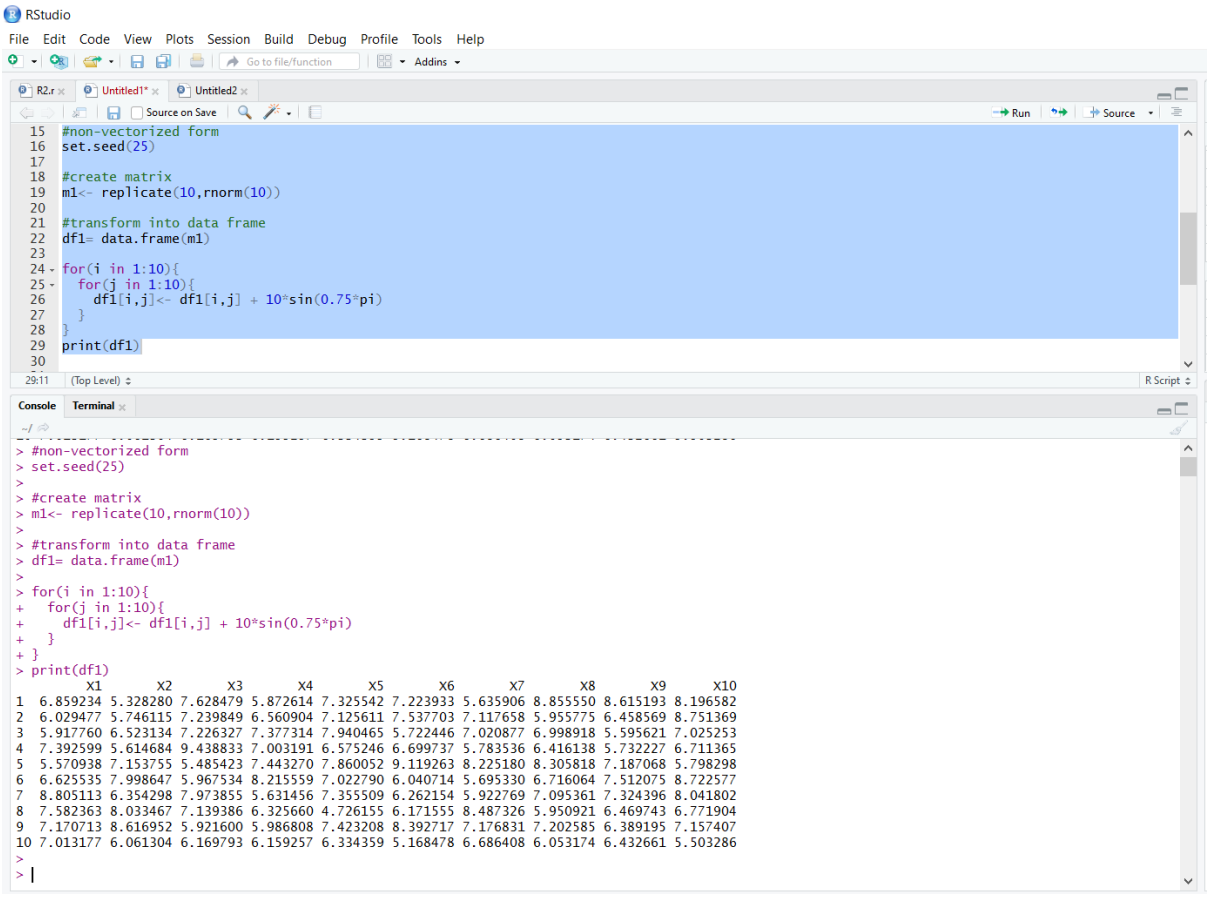

RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Addins
R2.r
Untitled1*
Untitled2
Source on Save
Run
Source
#Vectorized form
set.seed(25)
#create matrix
m<- replicate(10,rnorm(10))
#transform into data frame
df= data.frame(m)
df<- df + 10*sin(0.75*pi)
print(df)
#non-vectorized form
set.seed(25)
#create matrix
m1<- replicate(10,rnorm(10))
#transform into data frame
(Top Level)
R Script
Console
Terminal
> #Vectorized form
> set.seed(25)
> #create matrix
> m<- replicate(10,rnorm(10))
> #transform into data frame
> df= data.frame(m)
> df<- df + 10*sin(0.75*pi)
> print(df)
X1 X2 X3 X4 X5 X6 X7 X8 X9 X10
1 6.859234 5.328280 7.628479 5.872614 7.325542 7.223933 5.635906 8.855550 8.615193 8.196582
2 6.029477 5.746115 7.239849 6.560904 7.125611 7.537703 7.117658 5.955775 6.458569 8.751369
3 5.917760 6.523134 7.226327 7.377314 7.940465 5.722446 7.020877 6.998918 5.595621 7.025253
4 7.392599 5.614684 9.438833 7.003191 6.575246 6.699737 5.783536 6.416138 5.732227 6.711365
5 5.570938 7.153755 5.485423 7.443270 7.860052 9.119263 8.225180 8.305818 7.187068 5.798298
6 6.625535 7.998647 5.967534 8.215559 7.022790 6.040714 5.695330 6.716064 7.512075 8.722577
7 8.805113 6.354298 7.973855 5.631456 7.355509 6.262154 5.922769 7.095361 7.324396 8.041802
8 7.582363 8.033467 7.139386 6.325660 4.726155 6.171555 8.487326 5.950921 6.469743 6.771904
9 7.170713 8.616952 5.921600 5.986808 7.423208 8.392717 7.176831 7.202585 6.389195 7.157407
10 7.013177 6.061304 6.169793 6.159257 6.334359 5.168478 6.686408 6.053174 6.432661 5.503286
>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#non-vectorized form
set.seed(25)
#create matrix
m1<- replicate(10,rnorm(10))
#transform into data frame
df1= data.frame(m1)
for(i in 1:10){
for(j in 1:10){
df1[i,j]<- df1[i,j] + 10*sin(0.75*pi)
}
}
print(df1)
29:11
(Top Level)
R Script
Console
Terminal
> #non-vectorized form
> set.seed(25)
> #create matrix
> m1<- replicate(10,rnorm(10))
> #transform into data frame
> df1= data.frame(m1)
> for(i in 1:10){
+ for(j in 1:10){
+ df1[i,j]<- df1[i,j] + 10*sin(0.75*pi)
+ }
+ }
> print(df1)
X1 X2 X3 X4 X5 X6 X7 X8 X9 X10
1 6.859234 5.328280 7.628479 5.872614 7.325542 7.223933 5.635906 8.855550 8.615193 8.196582
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5 5.570938 7.153755 5.485423 7.443270 7.860052 9.119263 8.225180 8.305818 7.187068 5.798298
6 6.625535 7.998647 5.967534 8.215559 7.022790 6.040714 5.695330 6.716064 7.512075 8.722577
7 8.805113 6.354298 7.973855 5.631456 7.355509 6.262154 5.922769 7.095361 7.324396 8.041802
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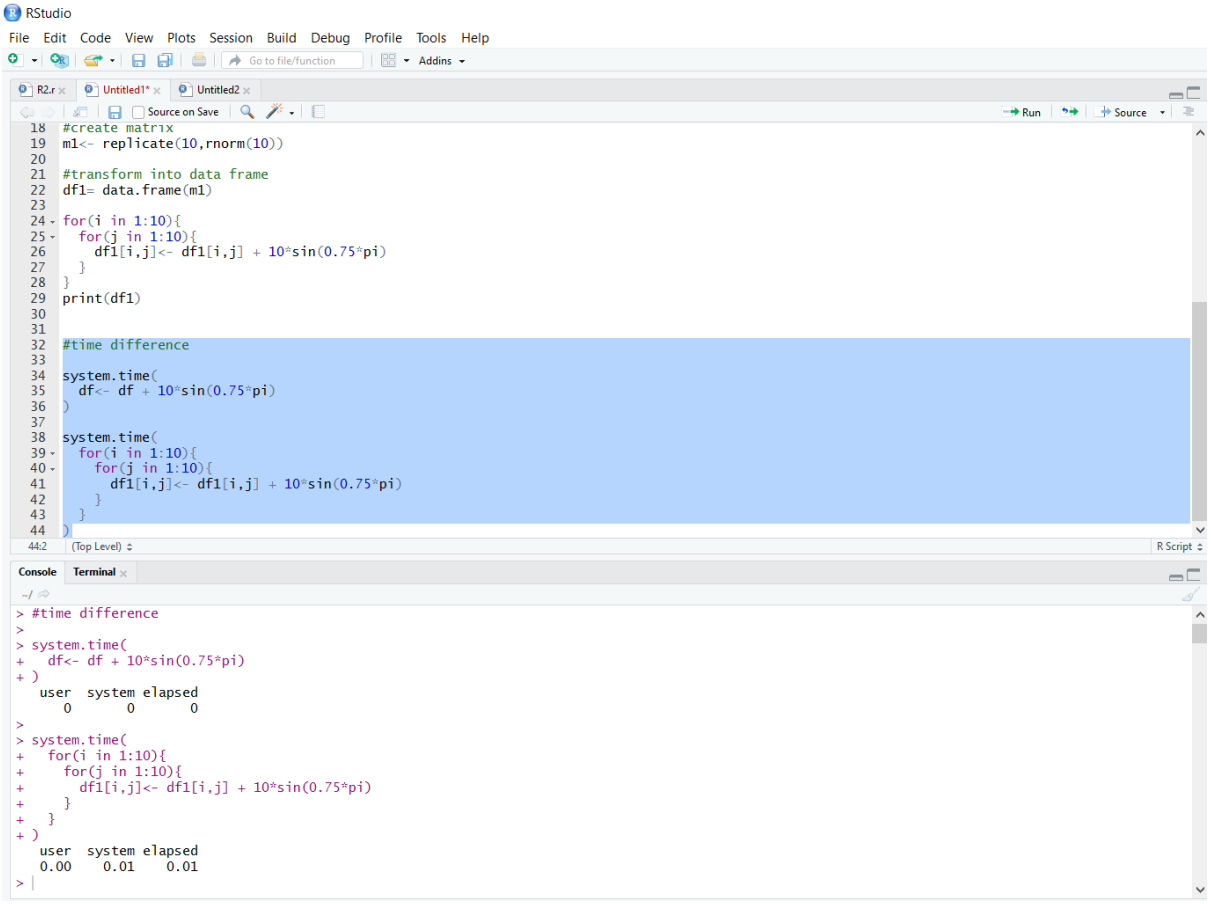
10 7.013177 6.061304 6.169793 6.159257 6.334359 5.168478 6.686408 6.053174 6.432661 5.503286
>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#transform into data frame
df1= data.frame(m1)
for(i in 1:10){
for(j in 1:10){
df1[i,j]<- df1[i,j] + 10*sin(0.75*pi)
}
}
print(df1)
#time difference
system.time(
df<- df + 10*sin(0.75*pi)
)
system.time(
for(i in 1:10){
for(j in 1:10){
df1[i,j]<- df1[i,j] + 10*sin(0.75*pi)
}
}
)
44:2
(Top Level)
R Script
Console
Terminal
> #time difference
>
> system.time(
+ df<- df + 10*sin(0.75*pi)
+ )
user system elapsed
0 0 0
>
> system.time(
+ for(i in 1:10){
+ for(j in 1:10){
+ df1[i,j]<- df1[i,j] + 10*sin(0.75*pi)
+ }
+ }
+ )
user system elapsed
0.00 0.01 0.01
>