

Session 3

Assignment 2

Q1

The screenshot shows the RStudio interface. The script editor on the left contains the following R code:

```
1 set.seed(42)
2 m=10
3 n=10
4 mymat <- replicate(m, rnorm(n))
5 mydframe <- data.frame(mymat)
6 for (i in 1:m) {
7   for (j in 1:n) {
8     mydframe[i,j] <- mydframe[i,j] + 10*sin(0.75*pi)
9   }
10 }
11
12 }
13
14 print(mydframe)
```

The console on the bottom left displays the output of the code, which is a 10x10 matrix. The matrix is printed with columns labeled X1 through X10 and rows numbered 1 through 10. The values are rounded to 6 decimal places.

	X1	X2	X3	X4	X5	X6	X7
1	1.37095845	1.3048697	-0.3066386	0.45545012	0.2059986	0.32192527	-0.3672346
2	-0.56469817	2.2866454	-1.7813084	0.70483734	-0.3610573	-0.78383894	0.1852306
3	0.36312841	-1.3888607	-0.1719174	1.03510352	0.7581632	1.57572752	0.5818237
4	0.63286260	-0.2787888	1.2146747	-0.60892638	-0.7267048	0.64289931	1.3997368
5	0.40426832	-0.1333213	1.8951935	0.50495512	-1.3682810	0.08976065	-0.7272921
6	-0.10612452	0.6359504	-0.4304691	-1.71700868	0.4328180	0.27655075	1.3025426
7	1.51152200	-0.2842529	-0.2572694	-0.78445901	-0.8113932	0.67928882	0.3358481
8	-0.09465904	-2.6564554	-1.7631631	-0.85090759	1.4441013	0.08983289	1.0385061
9	2.01842371	-2.4404669	0.4600974	-2.41420765	-0.4314462	-2.99309008	0.9207286
10	-0.06271410	1.3201133	-0.6399949	0.03612261	0.6556479	0.28488295	0.7208782

The Environment pane on the right shows the global environment with variables: mymat (10 obs. of 10 variables), mydframe (10 obs. of 10 variables), and values for b, ctr, i, j, m, and n. The Packages pane shows the user library with various installed packages like assertthat, BH, binneR, cli, colorspace, crayon, digest, dplyr, fansi, ggplot2, ggthemes, glue, gtable, and labeling.