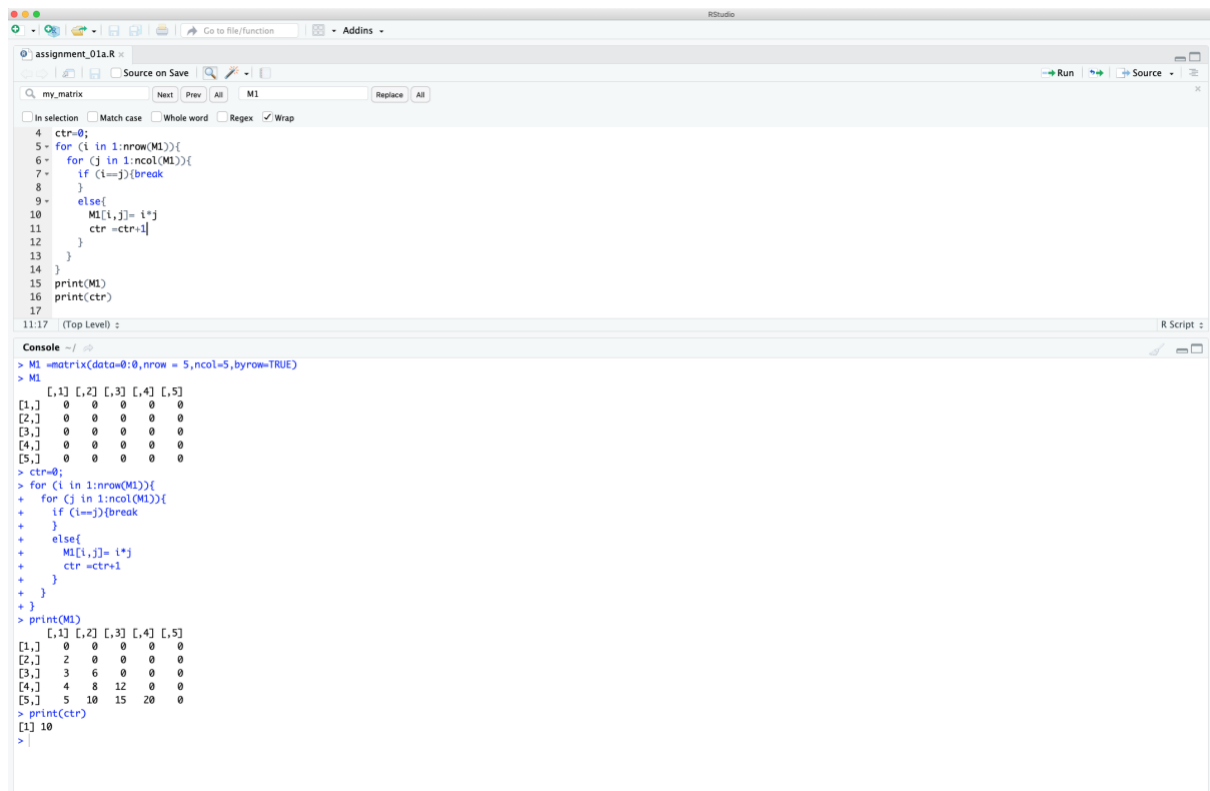


Results of R code



The screenshot shows the RStudio interface with a script editor and a console. The script editor contains the following R code:

```
4 ctr=0;
5 for (i in 1:nrow(M1)){
6   for (j in 1:ncol(M1)){
7     if (i==j){break
8   }
9   else{
10     M1[i,j]= i*j
11     ctr =ctr+1
12   }
13 }
14 }
15 print(M1)
16 print(ctr)
17
```

The console shows the execution of the code, starting with the creation of a 5x5 matrix M1 with all zeros:

```
> M1 =matrix(data=0,nrow = 5,ncol=5,byrow=TRUE)
> M1
      [,1] [,2] [,3] [,4] [,5]
[1,]  0  0  0  0  0
[2,]  0  0  0  0  0
[3,]  0  0  0  0  0
[4,]  0  0  0  0  0
[5,]  0  0  0  0  0
```

Then, the code iterates through the matrix, calculating the product of row and column indices (i*j) for each element where i != j, and increments a counter (ctr) for each calculation. The final output of the matrix M1 and the counter ctr are shown:

```
> print(M1)
      [,1] [,2] [,3] [,4] [,5]
[1,]  0  0  0  0  0
[2,]  2  0  0  0  0
[3,]  3  6  0  0  0
[4,]  4  8 12  0  0
[5,]  5 10 15 20  0
> print(ctr)
[1] 10
```