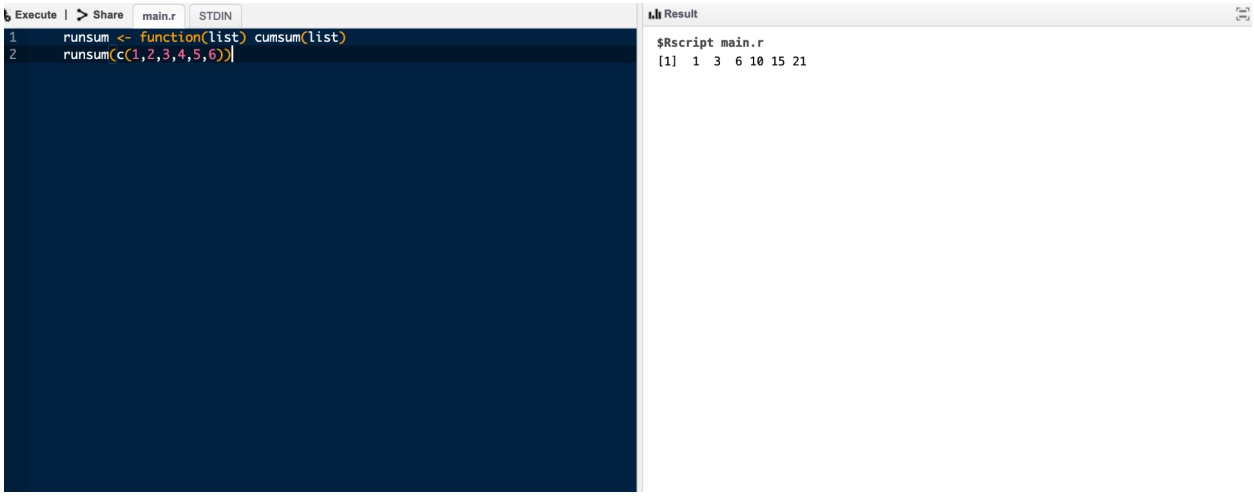
Data Science Practical

Name: Shubham Mishra
RollNo: 18020570029

Q1.Write a function that computes the running total of list.

```
runsum <- function(list) cumsum(list)
runsum(c(1,2,3,4,5,6))
```

output:



Q2.Implement matrices addition, subtraction and Multiplication

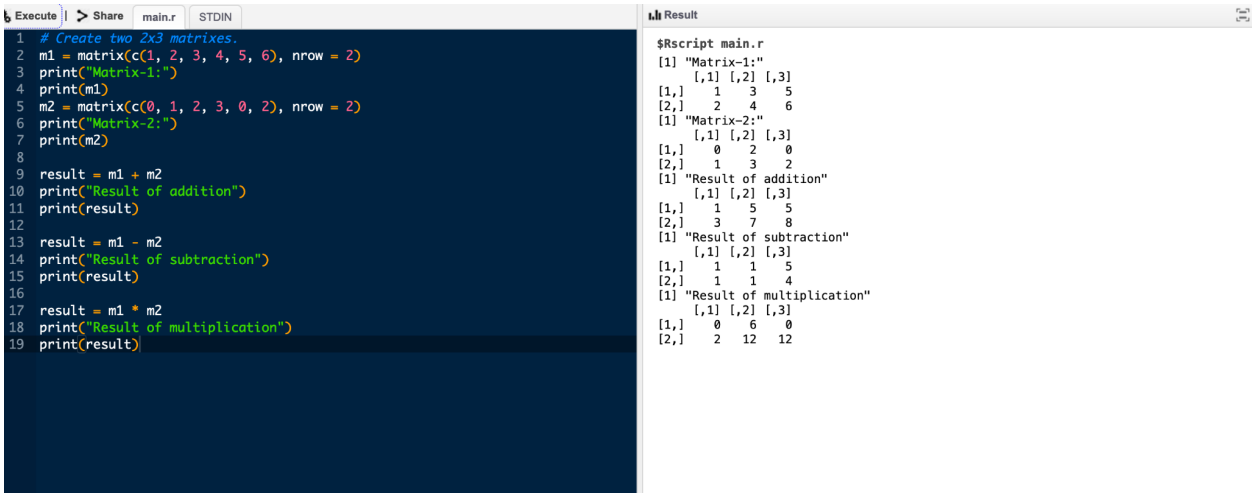
```
m1 = matrix(c(1, 2, 3, 4, 5, 6), nrow = 2)
print("Matrix-1:")
print(m1)
m2 = matrix(c(0, 1, 2, 3, 0, 2), nrow = 2)
print("Matrix-2:")
print(m2)

result = m1 + m2
print("Result of addition")
print(result)
```

```
result = m1 - m2
print("Result of subtraction")
print(result)

result = m1 * m2
print("Result of multiplication")
print(result)
```

output:



Q3. Implement linear search

```
linSearch <- function(list, element)
{
   pos = 1;
   flag = FALSE;
   for (l in list)
   {
       if (l==element)
       {
           flag = TRUE;
           break;
       }
       pos = pos+1;
   }
   if(flag)
   {
       print(paste("Element found at",pos),quote = FALSE);
   }
```

```
    else
    {
        print("Element not found",quote=FALSE);
    }
}

linSearch(c(45,12,1,63,50,12),63)
```