```
[1] "H:/MSc Data Science/CMM535 - Data Science Development/Week 1 - 20200128"
```

- [1] 1 2 3 4 5
- [1] 1 2 3 4 5 6 7 8 9 10
- [1] 1 3 5 7 9
- [1] "e" "s"
- [1] 0.0 2.5 5.0 7.5 10.0
- [1] "numeric"
- [1] 5
- [1] "character"
- [1] "numeric"
- [1] TRUE TRUE TRUE TRUE TRUE FALSE FALSE FALSE FALSE
- [1] FALSE FALSE FALSE FALSE
- [1] 2 4 6 8 10 12 14 16 18 20
- [1] 10 20 30 40 50 60 70 80 90 100
  - [,1] [,2] [,3] [,4]
- [1,]
- [2,]
- [3,]
- [4,]
- [1] 5
- [1] 14
- [1] 4 4
- [1] 34
  - [,1] [,2] [,3] [,4]
- [1,]
- [2,]
- [3,] [4,]
- [5,]
- [6,]
- [7,]
- [8,]
- [9,]
- [10,]

```
[,1] [,2] [,3]
 [1,]
             11
                   31
         1
 [2,]
             13
                   33
 [3,]
             14
                   34
         4
 [4,]
         5
             15
                   35
 [5,]
         6
             16
                   36
 [6,]
         7
             17
                  37
 [7,]
                   38
         8
             18
 [8,]
         9
             19
                   39
 [9,]
                   40
        10
             20
[1] 7 8 9 10
[1] 2.5 6.5 10.5 14.5
 student_id student_name
                             student_grades
          1
                      St1
                                  Excellent
          2
                      St2
                                        Good
          3
                      St3
                                         Bad
          4
                      St4
                                  Really Bad
          5
                      St5 Really Really Bad
[1] "student_id"
                      "student_name"
                                      "student_grades"
  student_id student_name
                              student_grades
                                    Excellent
1
           1
                       St1
2
           2
                       St2
                                         Good
3
           3
                       St3
                                          Bad
4
           4
                       St4
                                  Really Bad
5
           5
                       St5 Really Really Bad
                student_grades
  student_id
1
           1
                      Excellent
2
           2
                           Good
3
           3
                            Bad
4
           4
                     Really Bad
5
           5 Really Really Bad
  student_id student_name student_grades
```

St3

St1

St2

St3

St4

student\_id student\_name

1

2

3

4

5

1

2

3

4

5

Bad

Excellent 67.59336

Really Bad 64.18825

Good 63.81619

Bad 56.60937

student\_grades

St5 Really Really Bad 50.32419

```
        student_id
        student_name
        student_grades
        gpa

        1
        St1
        Excellent
        67.59336

        2
        St2
        Good
        63.81619

        3
        St3
        Bad
        56.60937

        4
        St4
        Really Bad
        64.18825

        5
        St5
        Really Really Bad
        50.32419
```

Average GPA is: 60.50627

Min GPA is: 50.32419

Max GPA is: 67.59336

| ${\tt student\_id}$ | ${\tt student\_name}$ | ${\tt student\_grades}$ | gpa      |
|---------------------|-----------------------|-------------------------|----------|
| 1                   | St1                   | Good                    | 67.59336 |
| 2                   | St2                   | Good                    | 63.81619 |
| 3                   | St3                   | Good                    | 56.60937 |
| 4                   | St4                   | Good                    | 64.18825 |
| 5                   | St.5                  | Good                    | 50.32419 |

| student_id | ${\tt student\_name}$ | student_grades    | gpa      |
|------------|-----------------------|-------------------|----------|
| 1          | St1                   | Excellent         | 67.59336 |
| 2          | St2                   | Good              | 63.81619 |
| 3          | St3                   | Bad               | 56.60937 |
| 4          | St4                   | Really Bad        | 64.18825 |
| 5          | St5                   | Really Really Bad | 50.32419 |

- [1] 42.83701
- [1] 38.5478
- [1] 44.67955 62.81181 73.19503 27.46710 12.75139 16.51490 20.12667 78.84472
- [9] 59.56288 32.41605
- [1] 44.68 62.81 73.20 27.47 12.75 16.51 20.13 78.84 59.56 32.42

<sup>&</sup>gt; plot(myNumbers, squaredX, type='b', xlab = 'mynumbers', ylab = 'x\*x', frame=FALSE, col='blue',

