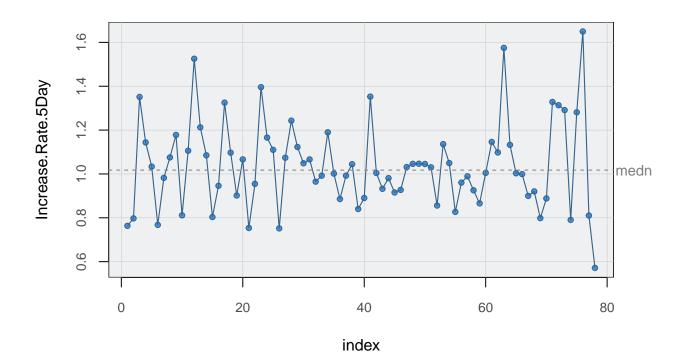
Run Chart

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Run Chart

```
setwd("/Users/ewenwang/Dropbox/Data Science/DMAIC/Case Study/3-Analyze")
df = data.frame(read.csv("data.csv", header = T)[-c(1:4),])
require(lessR)
LineChart(Increase.Rate.5Day, data = df)
```



```
## --- Increase.Rate.5Day ---
##
##
## n: 78
## missing: 0
## median: 1.017472
##
## ------
## Run Analysis
## ------
```

```
##
## size=2
                             2
            Run
                 1:
                        1
                                   5
## size=3
            Run
                 2:
                        3
## size=2
                        6
                             7
            Run
                 3:
## size=2
            Run
                 4:
                        8
                             9
## size=1
                 5:
                       10
            Run
## size=4
                 6:
                       11
                                  13
                                       14
            Run
                            12
## size=2
            Run
                 7:
                       15
                            16
## size=2
            Run
                 8:
                       17
                            18
## size=1
            Run
                9:
                       19
## size=1
            Run 10:
                       20
## size=2
            Run 11:
                       21
                            22
            Run 12:
                       23
## size=3
                            24
                                  25
## size=1
            Run 13:
                       26
## size=5
            Run 14:
                       27
                            28
                                  29
                                       30
                                             31
## size=2
            Run 15:
                       32
                            33
## size=1
            Run 16:
                       34
## size=3
            Run 17:
                       35
                            36
                                  37
## size=1
            Run 18:
                       38
## size=2
            Run 19:
                       39
                            40
## size=1
            Run 20:
                       41
## size=5
            Run 21:
                       42
                            43
                                       45
                                             46
                                  44
            Run 22:
## size=5
                       47
                            48
                                  49
                                       50
                                             51
## size=1
            Run 23:
                       52
            Run 24:
## size=2
                       53
                            54
## size=6
            Run 25:
                       55
                            56
                                  57
                                       58
                                             59
                                                  60
## size=4
            Run 26:
                       61
                            62
                                  63
                                       64
## size=6
            Run 27:
                       65
                            66
                                  67
                                       68
                                             69
                                                  70
            Run 28:
                       71
## size=3
                            72
                                  73
            Run 29:
                       74
## size=1
## size=2
            Run 30:
                       75
                            76
## size=2
            Run 31:
                       77
                            78
##
## Total number of runs: 31
  Total number of values that do not equal the median: 78
## Total number of values ignored that equal the median: 0
```

• The run chart indicates oscillating patterns. Oscillation occurs when the data fluctuates up and down, indicating that the process is not steady. However, this is the common situation in the finance field.