

## EXPERIMENT 3: OUTPUT

### CHI SQUARE TEST:

```
> diabetes1 <- read.csv("diabetes1.csv", head=TRUE, sep=",")
> diabetes1
  S.NO AGE INSULIN
1     1  58      0
2     2  60      1
3     3  45      1
4     4  57      2
5     5  63      1
6     6  70      0
7     7  67      2
8     8  43      2
9     9  59      1
10    10  60      3
11    11  65      2
12    12  61      1
13    13  53      2
14    14  52      2
15    15  59      0
16    16  61      0
17    17  65      0
18    18  70      1
19    19  69      1
20    20  52      1
> chisq.test(diabetes1)

Pearson's Chi-squared test

data:  diabetes1
X-squared = 67.062, df = 38, p-value = 0.002501

Warning message:
In chisq.test(diabetes1) : Chi-squared approximation may be incorrect
```

### MIN MAX NORMALIZATION:

```
> A<- c( diabetes1$AGE)
> Mean<-mean(A)
> Minimum<-min(diabetes1$AGE)
> Maximum<-max(diabetes1$AGE)
> MinMax<- (A-Minimum) / (Maximum-Minimum)
> MinMax
 [1] 0.55555556 0.62962963 0.07407407 0.51851852 0.74074074 1.00000000
 [7] 0.88888889 0.00000000 0.59259259 0.62962963 0.81481481 0.66666667
[13] 0.37037037 0.33333333 0.59259259 0.66666667 0.81481481 1.00000000
[19] 0.96296296 0.33333333
> |
```

## Z SCORE NORMALIZATION:

```
> A<- c(diabetes1$AGE)
> Mean<- mean(A)
> Std<- sd(A)
> Zscore<- (A-Mean)/Std
> Zscore
[1] -0.19135613  0.07258336 -1.90696281 -0.32332587  0.46849259  1.39228081  0.99637157 -2.17090230 -0.05938639  0.07258336  0.73243208  0.20455310 -0.85120485
[14] -0.98317460 -0.05938639  0.20455310  0.73243208  1.39228081  1.26031106 -0.98317460
> |
```

## DECIMAL SCALING NORMALIZATION:

```
> Decimalscaling =(A/100)
> Decimalscaling
[1] 0.58 0.60 0.45 0.57 0.63 0.70 0.67 0.43 0.59 0.60 0.65 0.61 0.53 0.52 0.59 0.61 0.65 0.70 0.69 0.52
> |
```