EXPERIMENT-4

REGRESSION ANALYSIS USING R TOOL

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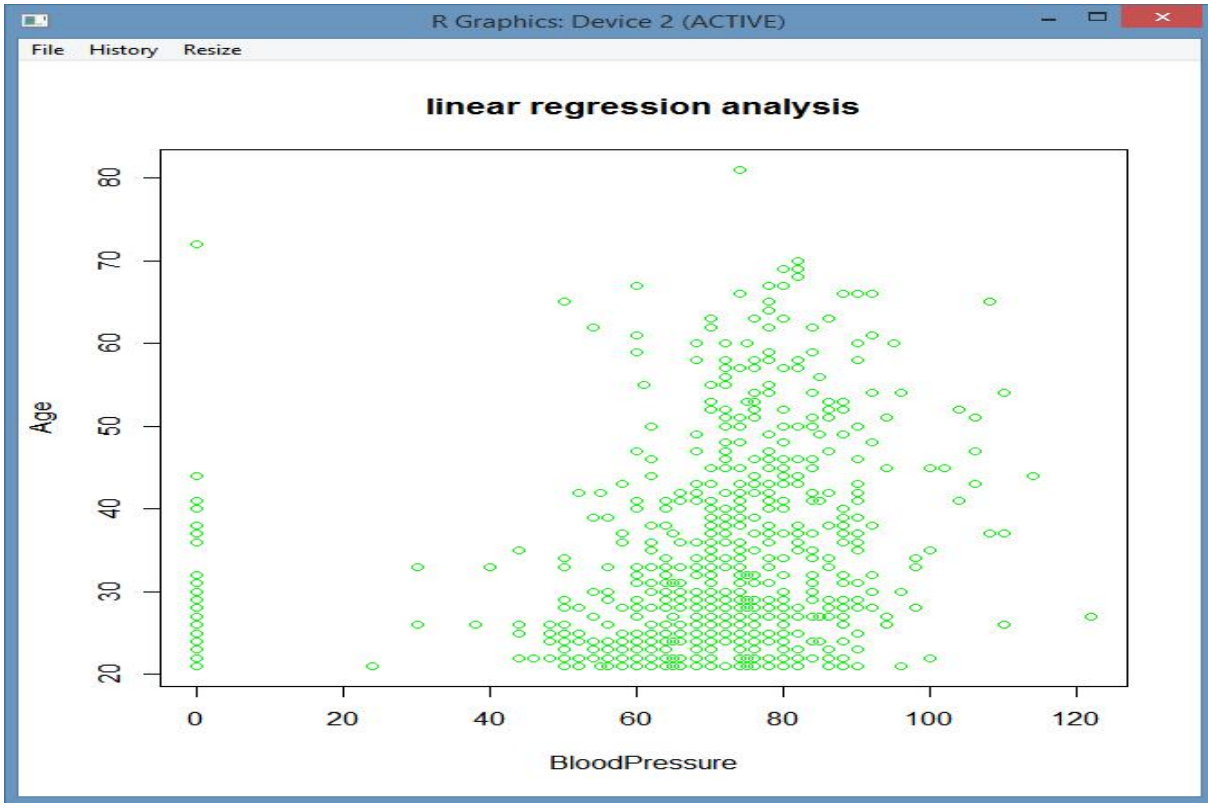
Subject: CSA1672, Data warehouse and data mining

OUTPUT:

LINEAR REGRESSION :



```
Console ~/
6: In title(...) : "abline" is not a graphical parameter
> A<-data.frame(diabetes$Age)
> result<-predict(relation,A)
> print(result)
       1        2        3        4        5        6        7        8        9
75.71244 68.22204 68.61627 64.27972 69.01050 67.82781 66.25088 67.43358 76.89514
      10       11       12       13       14       15       16       17       18
77.28937 67.82781 69.40474 78.47207 79.26053 76.10668 68.61627 68.22204 68.22204
      19       20       21       22       23       24       25       26       27
69.01050 68.61627 66.64511 75.71244 72.16436 67.43358 76.10668 72.16436 72.95282
      28       29       30       31       32       33       34       35       36
64.67395 78.47207 70.98166 79.65476 67.03935 64.67395 67.03935 73.74129 69.01050
      37       38       39       40       41       42       43       44       45
69.79897 74.13552 66.64511 78.07783 66.25088 70.58743 74.92398 77.28937 71.77013
      46       47       48       49       50       51       52       53       54
65.85665 67.43358 64.67395 68.22204 65.46242 64.67395 66.25088 67.82781 78.86630
```

MULTIPLE REGRESSION:

```
Console ~/
71.37589 76.50091 66.25088 82.02015 64.67395 72.95282 69.01050 80.83746 66.64511
     766      767      768
67.82781 74.52975 65.06819
> input<-diabetes[,c("Age","BloodPressure","Glucose")]
> model<-lm(Age~BloodPressure+Glucose,data = input)
> print(model)

Call:
lm(formula = Age ~ BloodPressure + Glucose, data = input)

Coefficients:
  (Intercept)  BloodPressure        Glucose
     14.33937        0.12399        0.08547

>
```

```
Console ~/
> model<-lm(Age~BloodPressure+Glucose,data = input)
> print(model)

Call:
lm(formula = Age ~ BloodPressure + Glucose, data = input)

Coefficients:
  (Intercept)  BloodPressure        Glucose
     14.33937        0.12399        0.08547

> A<-coef(model)[1]
> print(A)
(Intercept)
   14.33937
>
```


Console ~/
> print(xBloodPressure)
BloodPressure
0.1239891
> xBloodPressure<-coef(model)[2]
> yGlucose<-coef(model)[3]
> print(xBloodPressure)
BloodPressure
0.1239891
> print(yGlucose)
Glucose
0.08547277
> y=A+xBloodPressure+xGlucose
> print(y)
(Intercept)
14.54883
>