**Poisson regression model**

**First Data Set:**

train1\_1<- read.csv("C:\\Users\\Shalini\\Documents\\Information Retrival\\Assignment\\IRProjectData\\fakeTrainData1.csv")

train1\_2 <- read.csv("C:\\Users\\Shalini\\Documents\\Information Retrival\\Assignment\\IRProjectData\\realTrainData1.csv")

train1\_1$last <- as.numeric(0)

train1\_2$last <- as.numeric(1)

full\_train1 <- rbind(train1\_1,train1\_2)

poissonFit1 <- glm(full\_train1$last ~ ., family = "poisson", data = full\_train1[,-c(1,12)],maxit =100)

summary(poissonFit1)

Call:

glm(formula = full\_train1$last ~ ., family = "poisson", data = full\_train1[,

-c(1, 12)], maxit = 100)

Deviance Residuals:

Min 1Q Median 3Q Max

-1.13771 -0.99866 0.02238 0.61495 1.01678

Coefficients:

Estimate Std. Error z value Pr(>|z|)

(Intercept) -0.6841050 0.0110245 -62.053 < 2e-16 \*\*\*

trust 0.0622479 0.0112280 5.544 2.96e-08 \*\*\*

fear 0.0064524 0.0142689 0.452 0.651123

negative -0.0008771 0.0123995 -0.071 0.943604

sadness 0.0160521 0.0157717 1.018 0.308782

anger 0.0024470 0.0163393 0.150 0.880952

surprise 0.0392690 0.0157498 2.493 0.012656 \*

positive -0.0271629 0.0106520 -2.550 0.010771 \*

disgust 0.0001681 0.0170208 0.010 0.992122

joy -0.0497358 0.0139130 -3.575 0.000351 \*\*\*

anticipation -0.0199100 0.0115622 -1.722 0.085071 .

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Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for poisson family taken to be 1)

Null deviance: 34657 on 49999 degrees of freedom

Residual deviance: 34589 on 49989 degrees of freedom

AIC: 84611

Number of Fisher Scoring iterations: 5

**Second Data Set**

train2\_1 <- read.csv("C:\\Users\\Shalini\\Documents\\Information Retrival\\Assignment\\IRProjectData\\fakeTrainData2.csv")

train2\_2 <- read.csv("C:\\Users\\Shalini\\Documents\\Information Retrival\\Assignment\\IRProjectData\\realTrainData2.csv")

train2\_1$last <- as.numeric(0)

train2\_2$last <- as.numeric(1)

full\_train2 <- rbind(train2\_1,train2\_2)

poissonFit2 <- glm(full\_train2$last ~ ., family = "poisson", data = full\_train2[,-c(1,12)],maxit =100)

summary(poissonFit2)

Call:

glm(formula = full\_train2$last ~ ., family = "poisson", data = full\_train2[,

-c(1, 12)], maxit = 100)

Deviance Residuals:

Min 1Q Median 3Q Max

-1.1682 -0.9994 -0.1768 0.6200 0.8725

Coefficients:

Estimate Std. Error z value Pr(>|z|)

(Intercept) -0.673963 0.024615 -27.380 <2e-16 \*\*\*

trust 0.036602 0.025141 1.456 0.1454

fear 0.010824 0.032124 0.337 0.7362

negative -0.020412 0.028123 -0.726 0.4680

sadness 0.057815 0.035262 1.640 0.1011

anger -0.005126 0.036695 -0.140 0.8889

surprise 0.025367 0.034876 0.727 0.4670

positive -0.028457 0.023378 -1.217 0.2235

disgust 0.020467 0.038264 0.535 0.5927

joy -0.068930 0.031533 -2.186 0.0288 \*

anticipation 0.003382 0.025406 0.133 0.8941

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Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for poisson family taken to be 1)

Null deviance: 6931.5 on 9999 degrees of freedom

Residual deviance: 6912.2 on 9989 degrees of freedom

AIC: 16934

Number of Fisher Scoring iterations: 5