Only w/ 200 obs,

Call:

lm(formula = chanceofadmit ~ ., data = reg\_data)

Residuals:

Min 1Q Median 3Q Max

-0.237755 -0.033293 0.008098 0.044827 0.148983

Coefficients:

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

(Intercept) -1.4008035 0.1995375 -7.020 4.13e-11 \*\*\*

universityrating2 -0.0268412 0.0328390 -0.817 0.4148

universityrating3 -0.0257298 0.0341768 -0.753 0.4525

universityrating4 -0.0222123 0.0363065 -0.612 0.5414

universityrating5 0.0042724 0.0386196 0.111 0.9120

research1 0.0265311 0.0128863 2.059 0.0409 \*

sop\_g52 0.0142965 0.0296343 0.482 0.6301

sop\_g53 -0.0004081 0.0290010 -0.014 0.9888

sop\_g54 -0.0061433 0.0308148 -0.199 0.8422

sop\_g55 0.0091760 0.0369701 0.248 0.8043

lor\_g52 0.0267945 0.0244400 1.096 0.2744

lor\_g53 0.0551503 0.0255868 2.155 0.0324 \*

lor\_g54 0.0735254 0.0296833 2.477 0.0142 \*

grescore 0.0023094 0.0010015 2.306 0.0222 \*

toeflscore 0.0037931 0.0020235 1.874 0.0624 .

cgpa 0.1084097 0.0190597 5.688 4.98e-08 \*\*\*

---

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

Residual standard error: 0.07567 on 184 degrees of freedom

Multiple R-squared: 0.7828, Adjusted R-squared: 0.7651

F-statistic: 44.22 on 15 and 184 DF, p-value: < 2.2e-16

Call:

lm(formula = chanceofadmit ~ research + lor\_g5 + sop\_g5 + universityrating +

grescore + toeflscore + cgpa, data = reg\_data)

Residuals:

Min 1Q Median 3Q Max

-0.237755 -0.033293 0.008098 0.044827 0.148983

Coefficients:

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

(Intercept) -1.4008035 0.1995375 -7.020 4.13e-11 \*\*\*

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lor\_g52 0.0267945 0.0244400 1.096 0.2744

lor\_g53 0.0551503 0.0255868 2.155 0.0324 \*

lor\_g54 0.0735254 0.0296833 2.477 0.0142 \*

sop\_g52 0.0142965 0.0296343 0.482 0.6301

sop\_g53 -0.0004081 0.0290010 -0.014 0.9888

sop\_g54 -0.0061433 0.0308148 -0.199 0.8422

sop\_g55 0.0091760 0.0369701 0.248 0.8043

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universityrating4 -0.0222123 0.0363065 -0.612 0.5414

universityrating5 0.0042724 0.0386196 0.111 0.9120

grescore 0.0023094 0.0010015 2.306 0.0222 \*

toeflscore 0.0037931 0.0020235 1.874 0.0624 .

cgpa 0.1084097 0.0190597 5.688 4.98e-08 \*\*\*

---

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

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Multiple R-squared: 0.7828, Adjusted R-squared: 0.7651

F-statistic: 44.22 on 15 and 184 DF, p-value: < 2.2e-16

Call:

lm(formula = chanceofadmit ~ research + lor\_g5 + universityrating +

grescore + toeflscore + cgpa, data = reg\_data)

Residuals:

Min 1Q Median 3Q Max

-0.239445 -0.029896 0.007198 0.045417 0.145163

Coefficients:

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

(Intercept) -1.3605644 0.1948120 -6.984 4.81e-11 \*\*\*

research1 0.0261675 0.0127900 2.046 0.0422 \*

lor\_g52 0.0266735 0.0242654 1.099 0.2731

lor\_g53 0.0515601 0.0250029 2.062 0.0406 \*

lor\_g54 0.0736108 0.0286304 2.571 0.0109 \*

universityrating2 -0.0245041 0.0308966 -0.793 0.4287

universityrating3 -0.0245620 0.0316788 -0.775 0.4391

universityrating4 -0.0228145 0.0348119 -0.655 0.5130

universityrating5 0.0069853 0.0363618 0.192 0.8479

grescore 0.0022399 0.0009817 2.282 0.0236 \*

toeflscore 0.0037038 0.0019734 1.877 0.0621 .

cgpa 0.1074898 0.0188179 5.712 4.30e-08 \*\*\*

---

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

Residual standard error: 0.07517 on 188 degrees of freedom

Multiple R-squared: 0.7811, Adjusted R-squared: 0.7683

F-statistic: 60.97 on 11 and 188 DF, p-value: < 2.2e-16

Call:

lm(formula = chanceofadmit ~ research + lor\_g5 + grescore + toeflscore +

cgpa, data = reg\_data)

Residuals:

Min 1Q Median 3Q Max

-0.243255 -0.031959 0.009433 0.048393 0.145133

Coefficients:

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

(Intercept) -1.4253373 0.1846925 -7.717 6.33e-13 \*\*\*

research1 0.0246978 0.0126223 1.957 0.05183 .

lor\_g52 0.0132780 0.0208462 0.637 0.52492

lor\_g53 0.0418416 0.0221901 1.886 0.06086 .

lor\_g54 0.0702230 0.0259713 2.704 0.00747 \*\*

grescore 0.0021775 0.0009806 2.221 0.02755 \*

toeflscore 0.0037324 0.0019524 1.912 0.05740 .

cgpa 0.1161485 0.0180099 6.449 8.91e-10 \*\*\*

---

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

Residual standard error: 0.07526 on 192 degrees of freedom

Multiple R-squared: 0.7759, Adjusted R-squared: 0.7677

F-statistic: 94.95 on 7 and 192 DF, p-value: < 2.2e-16

Squaring Chance Admit (Box Cox)

Call:

lm(formula = (chanceofadmit^2) ~ research + lor\_g5 + grescore +

toeflscore + cgpa, data = reg\_data)

Residuals:

Min 1Q Median 3Q Max

-0.31316 -0.04634 0.01259 0.06799 0.18763

Coefficients:

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

(Intercept) -2.4862009 0.2410835 -10.313 < 2e-16 \*\*\*

research1 0.0414318 0.0164761 2.515 0.01274 \*

lor\_g52 0.0003781 0.0272111 0.014 0.98893

lor\_g53 0.0371833 0.0289653 1.284 0.20079

lor\_g54 0.0892610 0.0339010 2.633 0.00915 \*\*

grescore 0.0031065 0.0012800 2.427 0.01615 \*

toeflscore 0.0051286 0.0025485 2.012 0.04557 \*

cgpa 0.1659923 0.0235087 7.061 2.95e-11 \*\*\*

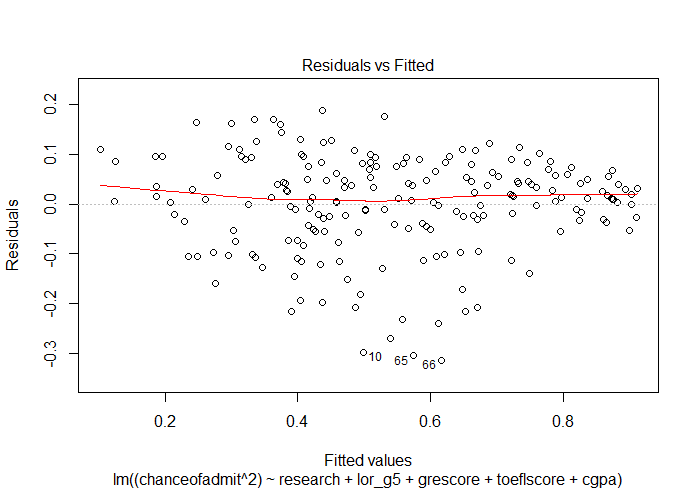
---

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

Residual standard error: 0.09824 on 192 degrees of freedom

Multiple R-squared: 0.8059, Adjusted R-squared: 0.7988

F-statistic: 113.9 on 7 and 192 DF, p-value: < 2.2e-16



Shapiro-Wilk normality test

data: m1\_residuals

W = 0.95132, p-value = 2.535e-06

w/o GRE:

Call:

lm(formula = (chanceofadmit^2) ~ research + lor\_g5 + toeflscore +

cgpa, data = reg\_data)

Residuals:

Min 1Q Median 3Q Max

-0.30671 -0.05146 0.01530 0.06779 0.20427

Coefficients:

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

(Intercept) -2.0247031 0.1500668 -13.492 < 2e-16 \*\*\*

research1 0.0486799 0.0164072 2.967 0.00339 \*\*

lor\_g52 0.0005819 0.0275535 0.021 0.98317

lor\_g53 0.0412281 0.0292814 1.408 0.16074

lor\_g54 0.0904731 0.0343241 2.636 0.00908 \*\*

toeflscore 0.0086474 0.0021222 4.075 6.73e-05 \*\*\*

cgpa 0.1820829 0.0228384 7.973 1.33e-13 \*\*\*

---

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

Residual standard error: 0.09947 on 193 degrees of freedom

Multiple R-squared: 0.7999, Adjusted R-squared: 0.7937

F-statistic: 128.6 on 6 and 193 DF, p-value: < 2.2e-16

w/0 toeflscore

Call:

lm(formula = (chanceofadmit^2) ~ research + lor\_g5 + grescore +

cgpa, data = reg\_data)

Residuals:

Min 1Q Median 3Q Max

-0.30860 -0.04698 0.01439 0.06702 0.19156

Coefficients:

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

(Intercept) -2.5639900 0.2398372 -10.691 < 2e-16 \*\*\*

research1 0.0426051 0.0165954 2.567 0.0110 \*

lor\_g52 -0.0009602 0.0274170 -0.035 0.9721

lor\_g53 0.0337137 0.0291415 1.157 0.2487

lor\_g54 0.0858545 0.0341252 2.516 0.0127 \*

grescore 0.0045720 0.0010609 4.309 2.61e-05 \*\*\*

cgpa 0.1855924 0.0215646 8.606 2.62e-15 \*\*\*

---

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

Residual standard error: 0.09901 on 193 degrees of freedom

Multiple R-squared: 0.8018, Adjusted R-squared: 0.7956

F-statistic: 130.1 on 6 and 193 DF, p-value: < 2.2e-16

w/o lor

Call:

lm(formula = (chanceofadmit^2) ~ research + grescore + cgpa,

data = reg\_data)

Residuals:

Min 1Q Median 3Q Max

-0.33236 -0.04482 0.02223 0.07282 0.19157

Coefficients:

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

(Intercept) -2.783332 0.237679 -11.710 < 2e-16 \*\*\*

research1 0.050346 0.016890 2.981 0.00324 \*\*

grescore 0.004529 0.001087 4.167 4.63e-05 \*\*\*

cgpa 0.215746 0.020073 10.748 < 2e-16 \*\*\*

---

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

Residual standard error: 0.1018 on 196 degrees of freedom

Multiple R-squared: 0.7872, Adjusted R-squared: 0.7839

F-statistic: 241.7 on 3 and 196 DF, p-value: < 2.2e-16

w/o research

Call:

lm(formula = (chanceofadmit^2) ~ lor\_g5 + grescore + cgpa, data = reg\_data)

Residuals:

Min 1Q Median 3Q Max

-0.33739 -0.04409 0.01341 0.06226 0.21790

Coefficients:

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

(Intercept) -2.778907 0.227969 -12.190 < 2e-16 \*\*\*

lor\_g52 -0.003763 0.027787 -0.135 0.89241

lor\_g53 0.031970 0.029550 1.082 0.28065

lor\_g54 0.090529 0.034564 2.619 0.00951 \*\*

grescore 0.005239 0.001043 5.022 1.16e-06 \*\*\*

cgpa 0.188791 0.021837 8.646 2.00e-15 \*\*\*

---

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

Residual standard error: 0.1004 on 194 degrees of freedom

Multiple R-squared: 0.795, Adjusted R-squared: 0.7898

F-statistic: 150.5 on 5 and 194 DF, p-value: < 2.2e-16

w/o cgpa

Call:

lm(formula = (chanceofadmit^2) ~ lor\_g5 + grescore, data = reg\_data)

Residuals:

Min 1Q Median 3Q Max

-0.36486 -0.06791 0.00526 0.08196 0.22487

Coefficients:

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

(Intercept) -3.3101197 0.2577228 -12.844 < 2e-16 \*\*\*

lor\_g52 0.0447516 0.0319491 1.401 0.16289

lor\_g53 0.1047469 0.0332537 3.150 0.00189 \*\*

lor\_g54 0.2118665 0.0370815 5.714 4.09e-08 \*\*\*

grescore 0.0118173 0.0008381 14.100 < 2e-16 \*\*\*

---

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

Residual standard error: 0.1179 on 195 degrees of freedom

Multiple R-squared: 0.7161, Adjusted R-squared: 0.7102

F-statistic: 122.9 on 4 and 195 DF, p-value: < 2.2e-16