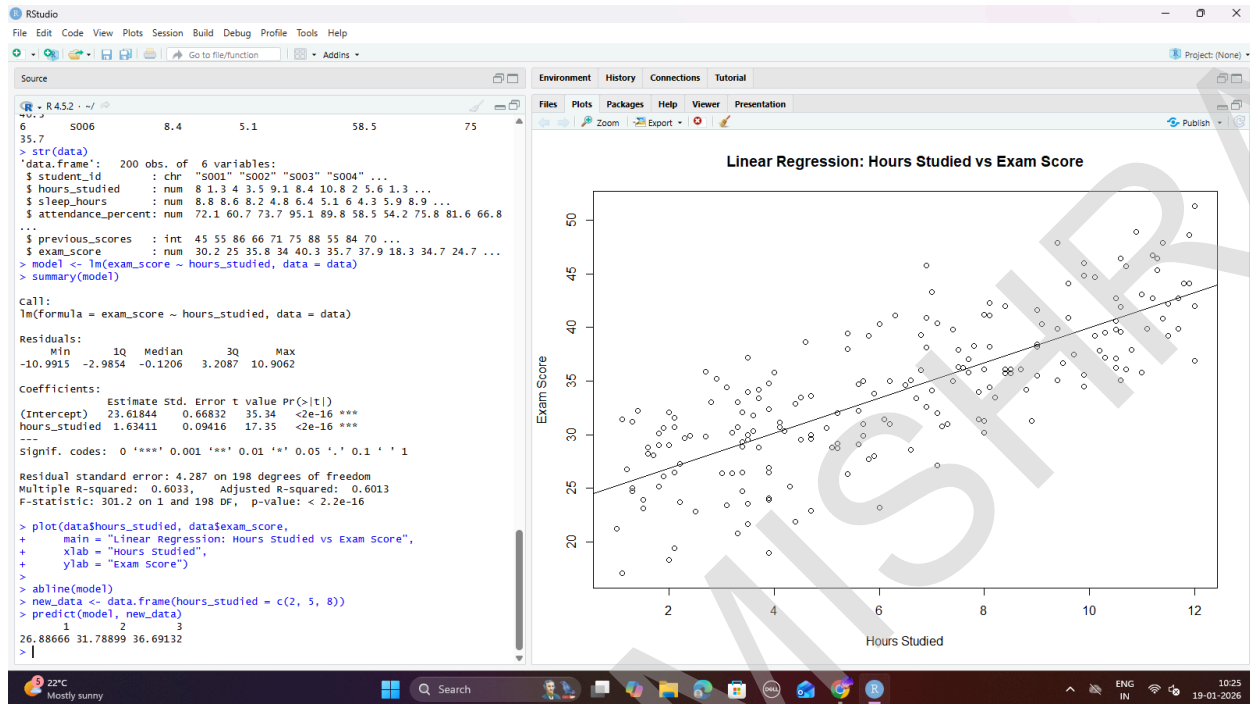
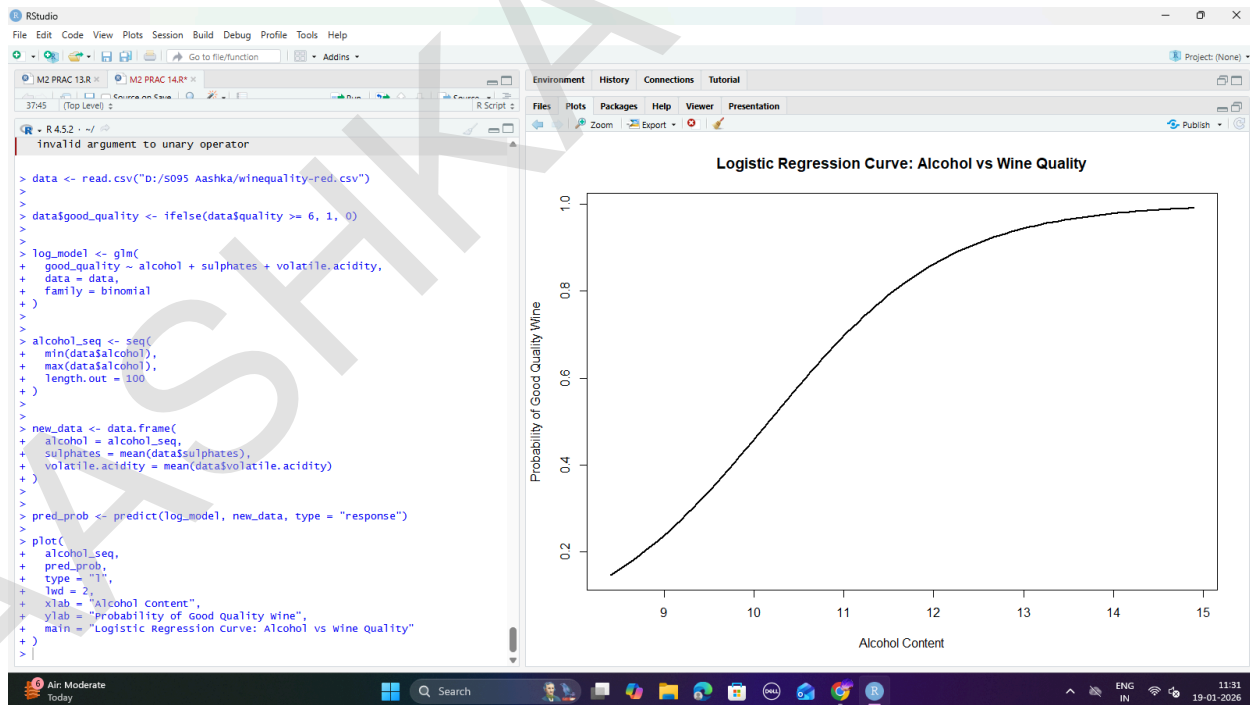


SHEETH L.U.J. AND SIR M.V. COLLEGE  
SUBJECT: DATA ANALYSIS WITH R  
PRACTICAL NO. 13-15

AIM: 13 Performing linear regression analysis using lm() (R).



AIM: 14 Performing logistic regression using glm() (R).



NAME: AASHKA MISHRA  
ROLL NO: S095

SHETH L.U.J. AND SIR M.V. COLLEGE

SUBJECT: DATA ANALYSIS WITH R

AIM: Exporting results into external files (Excel, CSV, PDF) using `write.csv()` and `writexl` ®

```
logistic_model_summary.txt  linear_model_summary.txt  +
File Edit View H1 B I
Call:
glm(formula = good_quality ~ alcohol + sulphates + volatile.acidity,
    family = binomial, data = wine_data)

Coefficients:
            Estimate Std. Error z value Pr(>|z|)
(Intercept)  -9.71979    0.78389  -12.399  < 2e-16 ***
alcohol         0.99736    0.06907   14.439  < 2e-16 ***
sulphates      1.87346    0.36942    5.071 3.95e-07 ***
volatile.acidity -3.12166    0.36469   -8.560  < 2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for binomial family taken to be 1)

Null deviance: 2289.0  on 1598  degrees of freedom
Residual deviance: 1724.5  on 1595  degrees of freedom
AIC: 1732.5

Number of Fisher Scoring iterations: 4

Ln 1, Col 1 712 characters Plain text 100% Windows (CRLF) UTF-8
26°C Sunny 19-01-2026
```

```
logistic_model_summary.txt  linear_model_summary.txt  +
File Edit View H1 B I
Call:
lm(formula = exam_score ~ hours_studied, data = student_data)

Residuals:
    Min       1Q   Median       3Q      Max
-10.9915  -2.9854  -0.1206   3.2087  10.9062

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  23.61844    0.66832   35.34  <2e-16 ***
hours_studied  1.63411    0.09416   17.35  <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 4.287 on 198 degrees of freedom
Multiple R-squared:  0.6033,    Adjusted R-squared:  0.6013
F-statistic: 301.2 on 1 and 198 DF, p-value: < 2.2e-16

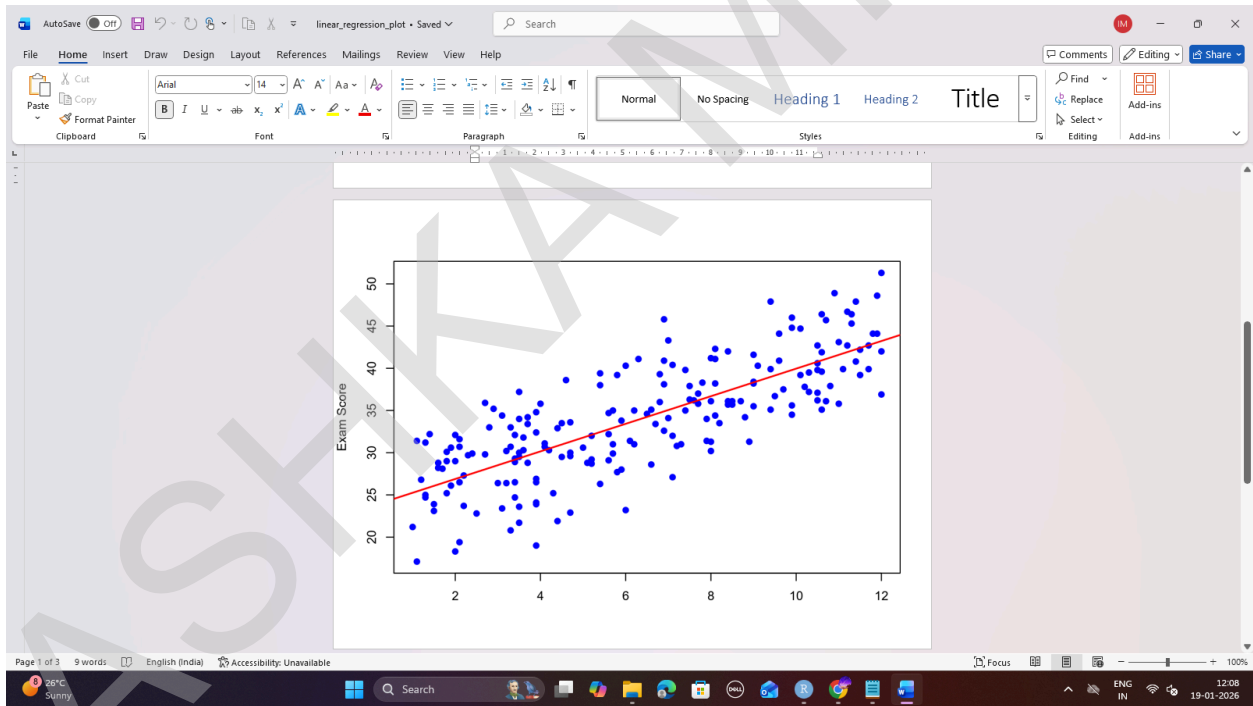
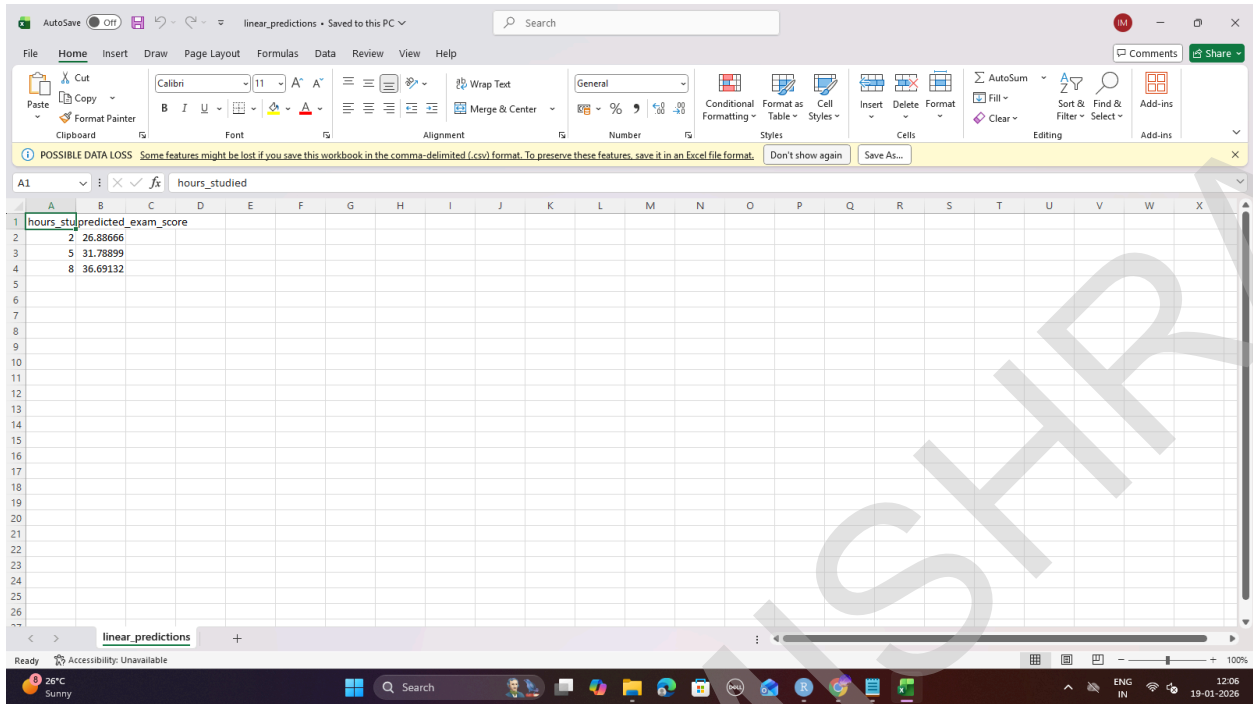
Ln 1, Col 1 589 characters Plain text 100% Windows (CRLF) UTF-8
26°C Sunny 19-01-2026
```

NAME: AASHKA MISHRA

ROLL NO: S095

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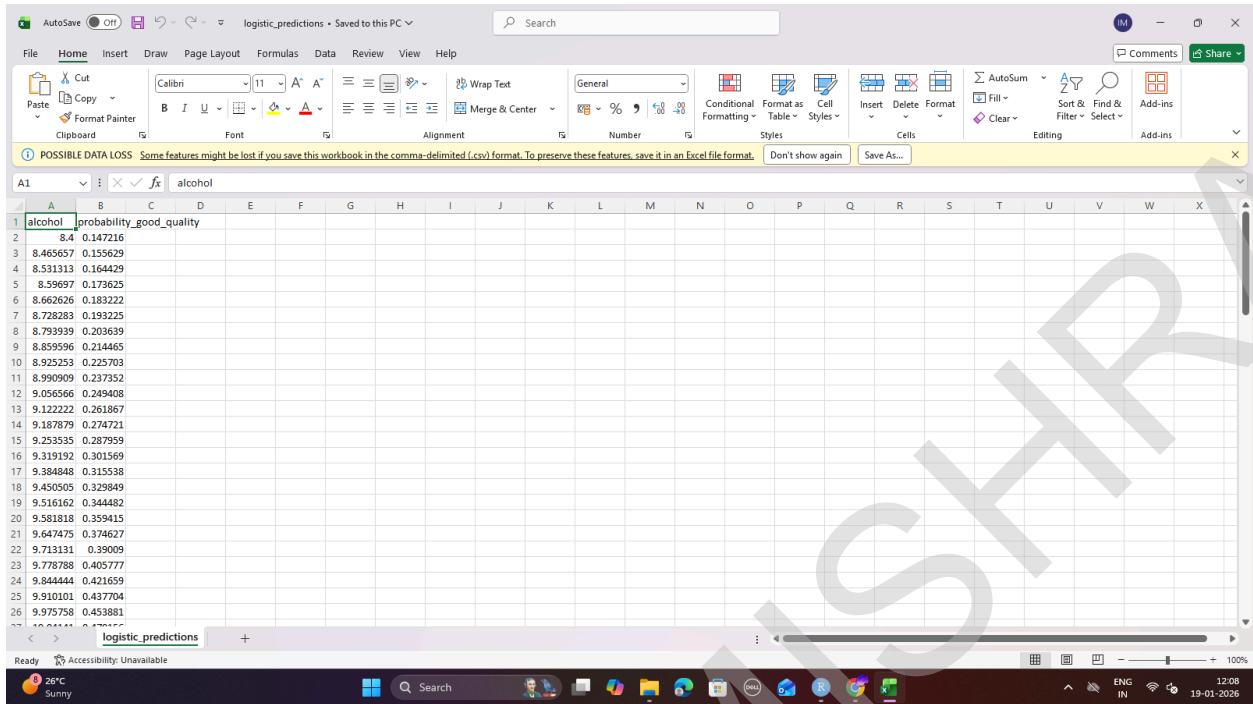
## SUBJECT: DATA ANALYSIS WITH R



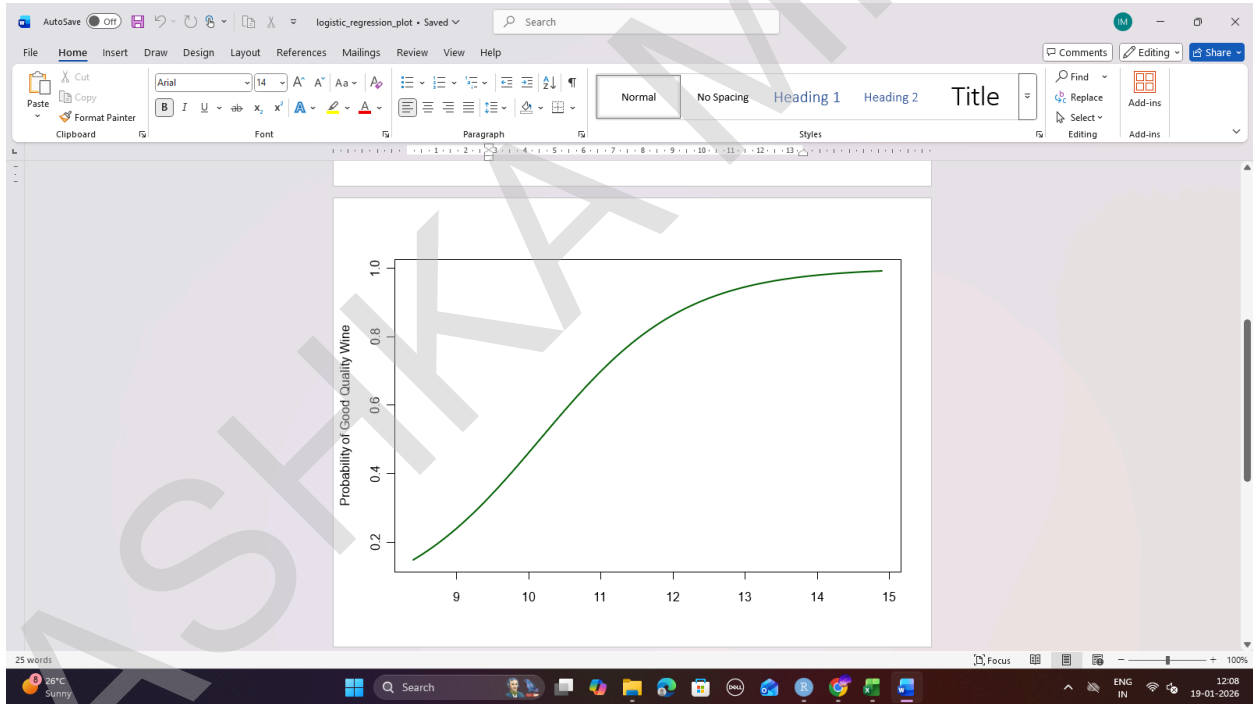
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ROLL NO: S095

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## SUBJECT: DATA ANALYSIS WITH R



alcohol	probability_good_quality
8.4	0.147216
8.465657	0.155629
8.531313	0.164429
8.59697	0.173625
8.662626	0.183222
8.728283	0.193225
8.793939	0.203639
8.859596	0.214465
8.925253	0.225703
8.990909	0.237352
9.056566	0.249408
9.122222	0.261867
9.187879	0.274721
9.253535	0.287959
9.319192	0.301569
9.384848	0.315538
9.450505	0.329849
9.516162	0.344482
9.581818	0.359415
9.647475	0.374627
9.713131	0.39009
9.778788	0.405777
9.844444	0.421659
9.910101	0.437704
9.975758	0.453881



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