

# Sheth I.u.j. And sir m.v. college of arts science and commerce

## Practical no. mod 2 13th

Aim: Performing linear regression analysis using `lm()` (R).

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Source
R 4.5.2 · ~/
> df_model1 <- df_model1[1:20, ]
> df_model1 <- na.omit(df_model1)
> model <- lm(temp_c ~ humidity, data = df_model1)
> summary(model)

Call:
lm(formula = temp_c ~ humidity, data = df_model1)

Residuals:
    Min       1Q   Median       3Q      Max
-0.5916 -0.3248 -0.0688  0.2789  0.8991

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) 38.748125   0.788202   49.16  <2e-16 ***
humidity    -0.309340   0.008767  -35.28  <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.4412 on 18 degrees of freedom
Multiple R-squared:  0.9857,    Adjusted R-squared:  0.985
F-statistic: 1245 on 1 and 18 DF,  p-value: < 2.2e-16

> plot(df_model1$humidity, df_model1$temp_c,
+       main = "Simple Linear Regression: Temperature vs Humidity",
+       xlab = "Humidity (%)",
+       ylab = "Temperature (°C)",
+       pch = 16,
+       col = "blue")
> abline(model, col = "red", lwd = 2)
> |
```

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