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Practical no. mod 2 13th

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

The screenshot shows the RStudio interface with the following details:

- Source Panel:** Displays the R code used for the analysis. The code includes data selection, model fitting, and plotting.
- Environment Panel:** Shows the global environment with objects like f, laptop_bat..., lis, mat, mat1, mat2, mean_data, and model.
- Files Panel:** Shows the project structure with files like Wireshark, yahooSto..., YB - Xceed, YB - Xceed, mod2 14th, mod2 13th, my_data.cs, my_data.xls, my_data.pc, logistic_req, linear_regr, practical_e, practical_e, and practical_e.

```
> df_model1 <- df_model[1:20, ]
>
> df_model1 <- na.omit(df_model1)
>
> model1 <- lm(temp_c ~ humidity, data = df_model1)
>
> summary(model1)

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(model1, col = "red", lwd = 2)
> |
```

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Linear Regression: Temperature vs Humidity

