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Practical no. mod 2 14th

Aim: Performing logistic regression using `glm()` (R).

The screenshot shows the RStudio interface with the following details:

- Source Panel:** Displays the R code used for the analysis.
- Environment Panel:** Shows the current environment variables and their values.
- Files Panel:** Lists the files in the current directory.

```
R 4.5.2 · ~/ ◁
> df_model$AQI_Binary <- ifelse(df_model$aqi_index > 100, 1, 0)
>
> model1 <- glm(AQI_Binary ~ pm2_5,
+                  data = df_model,
+                  family = binomial)

Warning message:
glm.fit: fitted probabilities numerically 0 or 1 occurred

> summary(model1)

Call:
glm(formula = AQI_Binary ~ pm2_5, family = binomial, data = df_model)

Coefficients:
            Estimate Std. Error z value Pr(>|z|)
(Intercept) -2.651436   0.082158 -32.27    <2e-16 ***
pm2_5        0.128081   0.002407  53.21    <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: 18414  on 52559  degrees of freedom
Residual deviance: 10306  on 52558  degrees of freedom
AIC: 10310

Number of Fisher Scoring iterations: 9

>
> predicted_prob <- predict(model1, type = "response")
>
> plot(df_model$pm2_5, predicted_prob,
+       xlab = "PM2.5",
+       ylab = "Probability of Bad AQI",
+       main = "Logistic Regression: AQI vs PM2.5",
+       pch = 16, col = "blue")
```

Variable	Value
num2	5
numb	in
numb2	nui
numb3	nui
p_value	0.1
p_values	nui
predicted	Nai
predicted_...	La
predicted_...	La

Files | Plots | Packages

- Home
- yahooStock.csv
- YB - XceedNet.R
- YB - XceedNet.Rproj
- mod2 14th.R
- mod2 13th.R
- my_data.csv
- my_data.xlsx
- my_data.pdf
- logistic_regress
- linear_regress
- practical_expor
- practical_expor
- practical_expor
- mod2 13th.ndf

