3_2ndassessment_Q7.R

ACER

2024-05-31

```r
# Loading dataset
aq_data <- airquality


# a)to check if temp variable follows normal distribution

shapiro_result <- shapiro.test(aq_data$Temp)
print(shapiro_result)
```

```
##
##  Shapiro-Wilk normality test
##
## data:  aq_data$Temp
## W = 0.97617, p-value = 0.009319
```

```r
# Interpretation: As W-stat is close to 1 we can say temp variable follows
# normal distribution


# b) to check if temp variable month variable to check if the variaces of mpg
# are equal or not on am variable categories
anova_mod <- aov(Temp ~ Month, data = aq_data)
summary(anova_mod)
```

```
##              Df Sum Sq Mean Sq F value   Pr(>F)
## Month         1   2413  2413.0   32.52 6.03e-08 ***
## Residuals   151  11205    74.2
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
# ...
```