Normality assumption for log price variable:

The QQ plot, histogram, and boxplot in the normality assumption test for the Log price predictor suggest a normal distribution without significant deviations. The Shapiro-Wilk test yielded a p-value of 0.224, indicating that the errors conform to a normal distribution, suggesting no violation of the normality assumption.

```{r}
# QQ-plot for this model
p3 <- ggplot(data = love_lm2_aug, aes(sample = .resid)) +
geom_qq_line() +
geom_qq() +
theme_minimal() +
ggtitle("Q-Q plot")

# Create a histogram of the residuals
p4 <- ggplot(data = love_lm2_aug, aes(x = .resid)) +
geom_histogram() +
theme_minimal() +
ggtitle("Histogram of residual")

# Create a boxplot of the residuals
p5 <- ggplot(data = love_lm2_aug, aes(x = .resid)) +
geom_boxplot() +
theme_minimal() +
ggtitle("Boxplot of residual")

plot_grid(p3, p4, p5, nrow = 1)
```

QQ plot, histogram and boxplot for log price
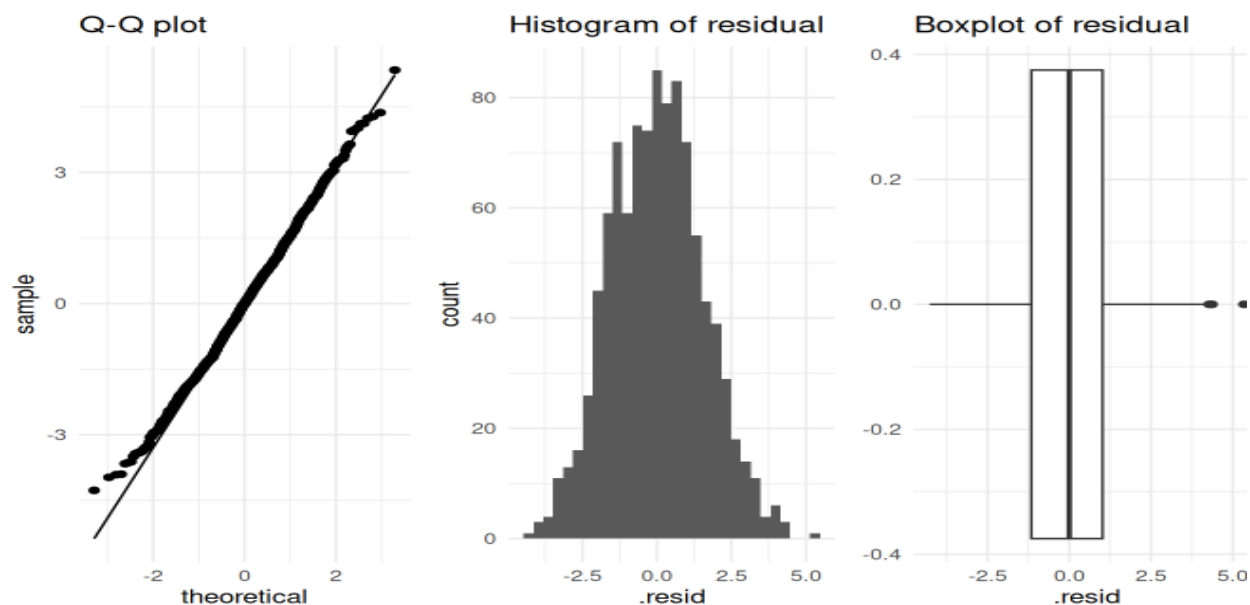
Shapiro-Wilks test:

Ho: errors are normally distributed

HA: errors are NOT normally distributed

```{r}
shapiro.test(love_lm2$residuals)
```

```
        Shapiro-Wilk normality test

data:  love_lm2$residuals
W = 0.99785, p-value = 0.2238
```

Because the p-value is > 0.05, fail to reject Ho and conclude the errors are normally distributed.