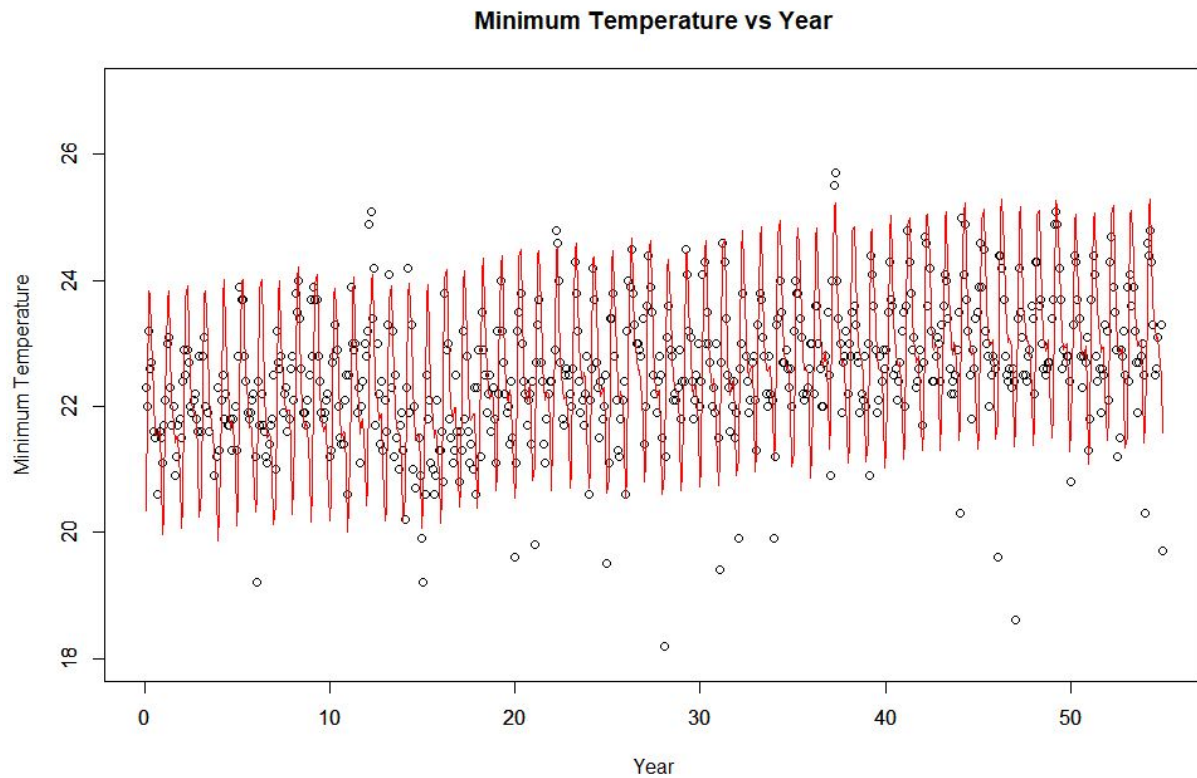


Rachel Driehaus
MAT 375
Final Model Evaluation
4/29/18

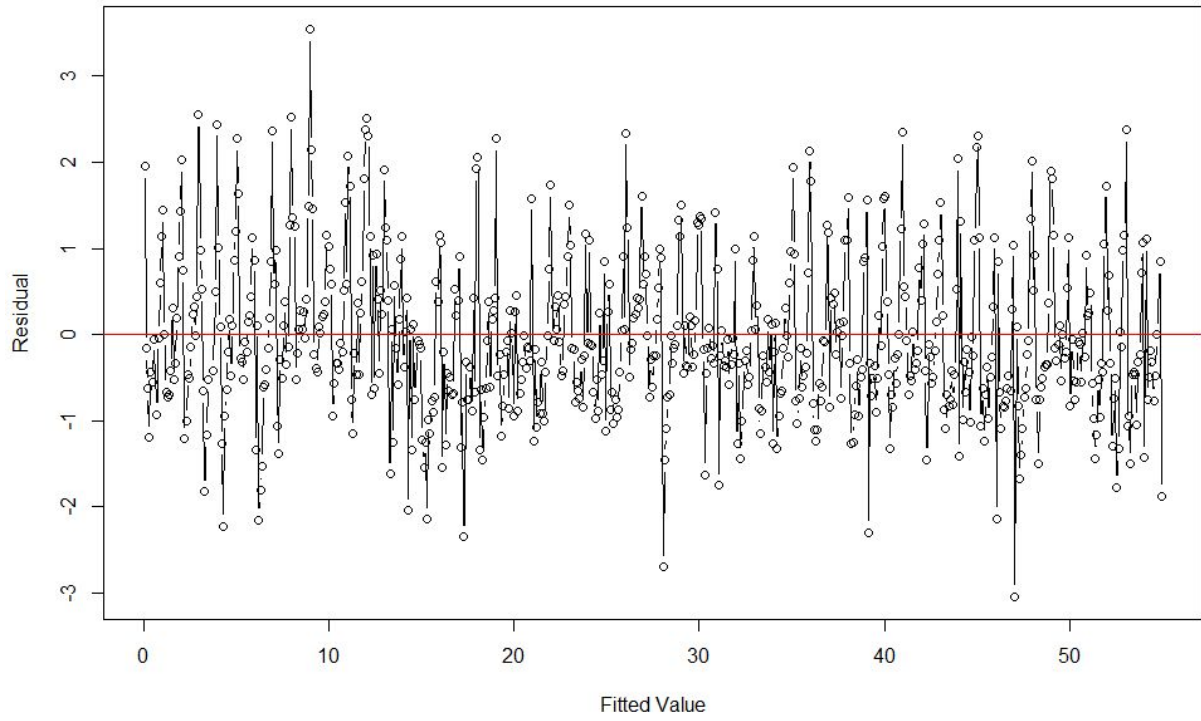
Minimum Temperature

The Minimum Model has improved greatly. Our our squared is 0.5894731. This means that 58.9% of the variation is explained by our model. This model does an okay job of fitting our city. It could be better but it is a better fit than the mean would be.

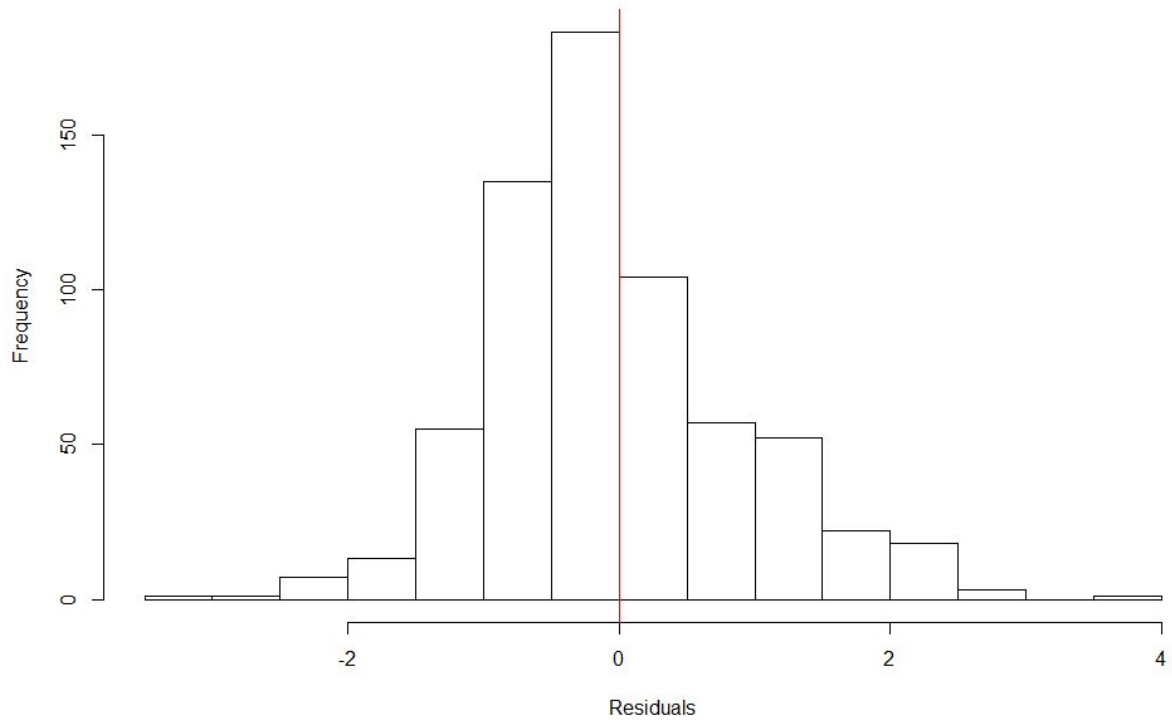


The residuals have also improved from the last model. They are more centered around zero. There is still a slight pattern but nothing too concerning. The residuals in the histogram look approximately normal.

Residuals for the Minimum Temperature

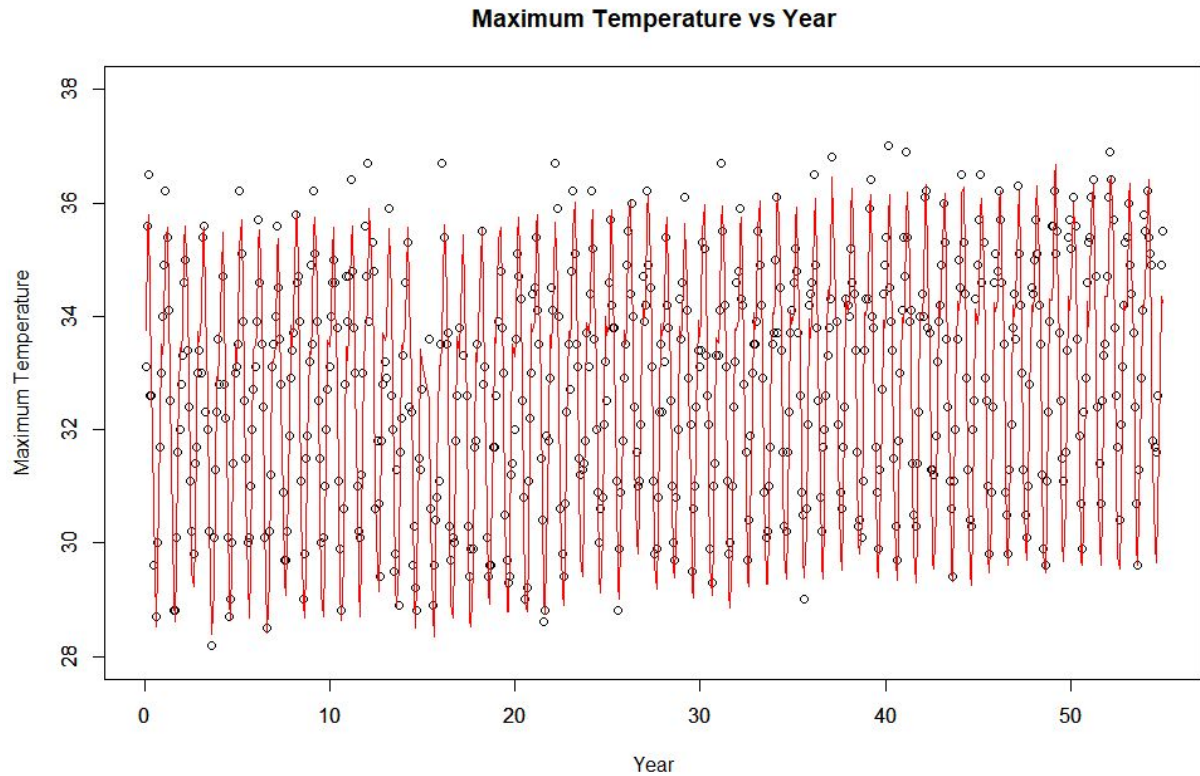


Histogram of the Residuals for the Minimum Temperature



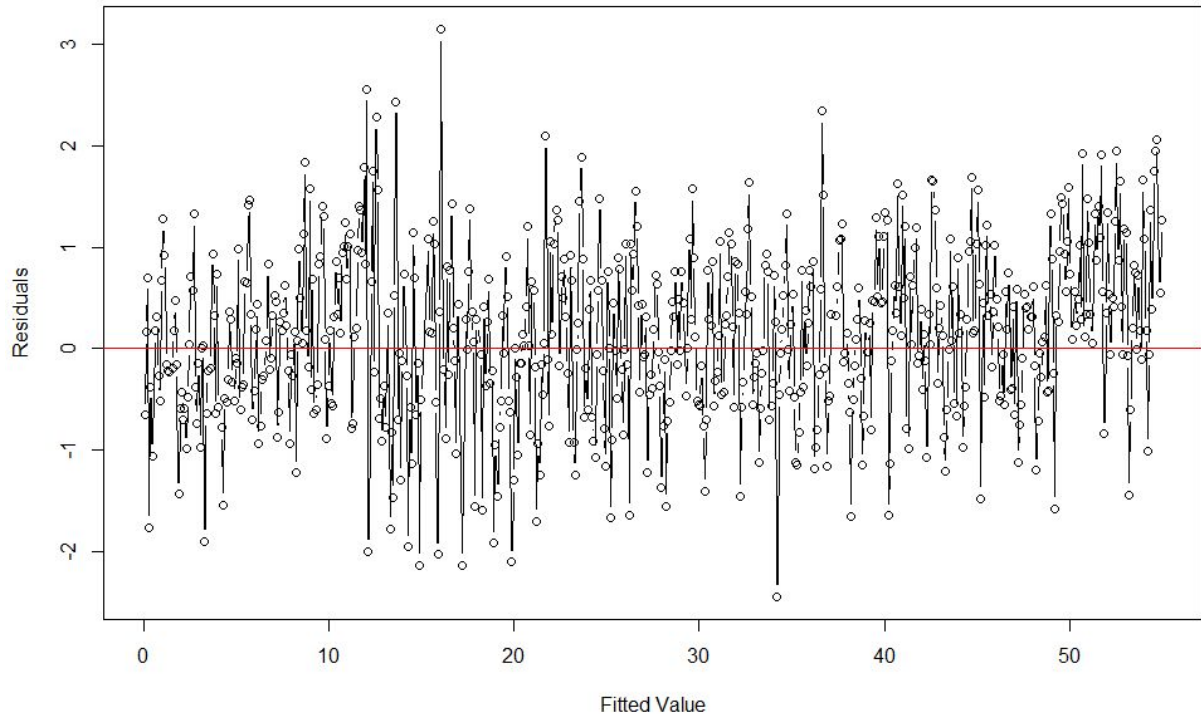
Maximum Temperature

The Maximum Model has also improved. The our squared was 0.8299975. This means that about 83% of the variation in the data is explained by the model. I believe that this model fits our city fairly well.

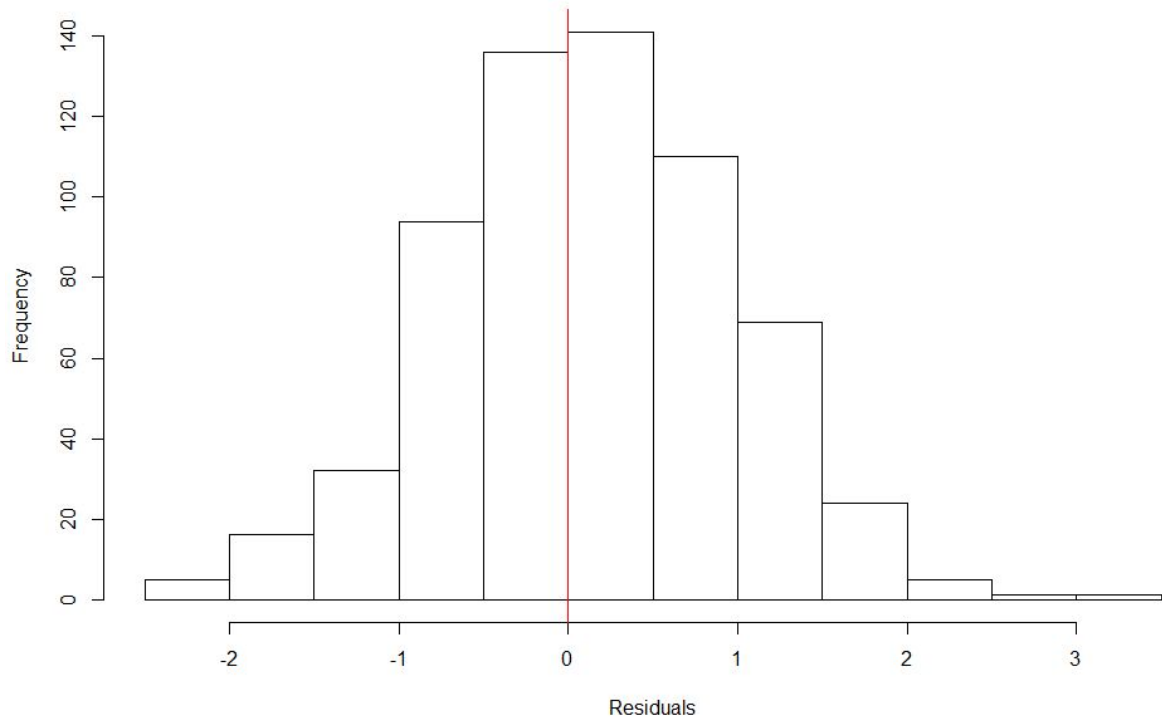


There is a bit of a pattern in the residual plot but nothing I would be too concerned with. The Histogram has improved because it is more centered around zero.

Residuals for the Maximum Temperature



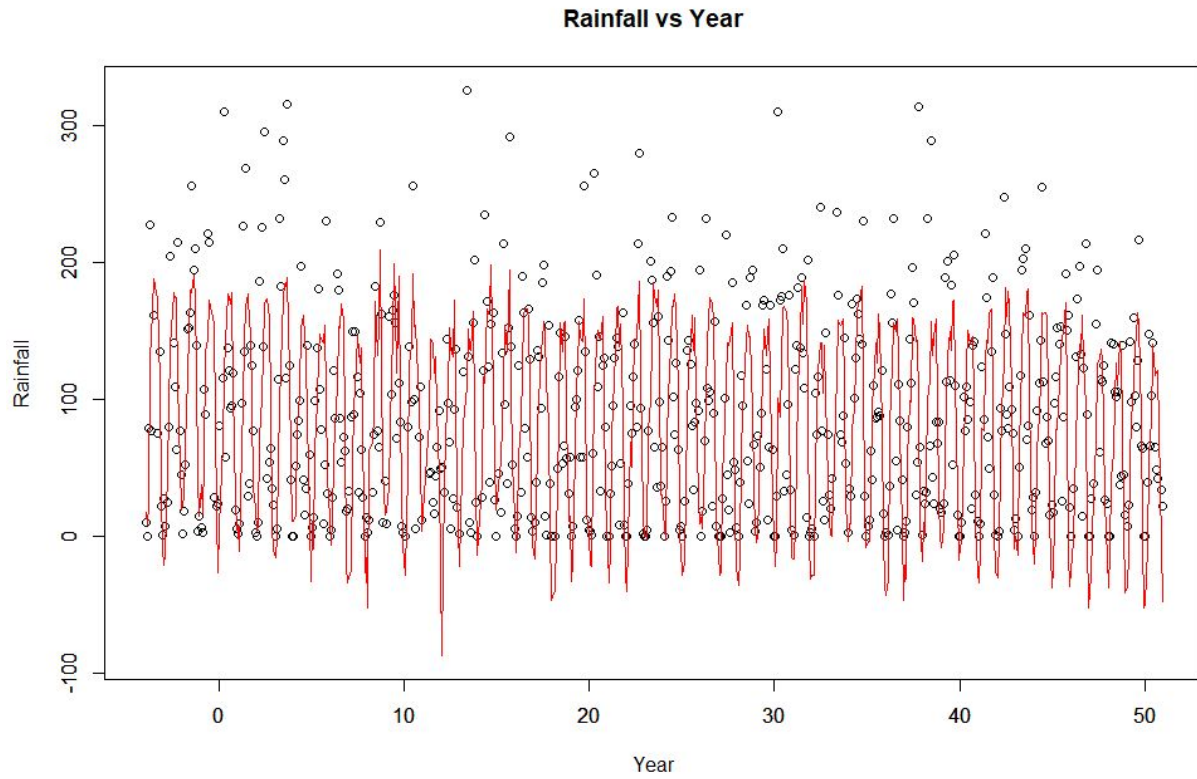
Histogram of the Residuals for the Maximum Temperature



Rainfall

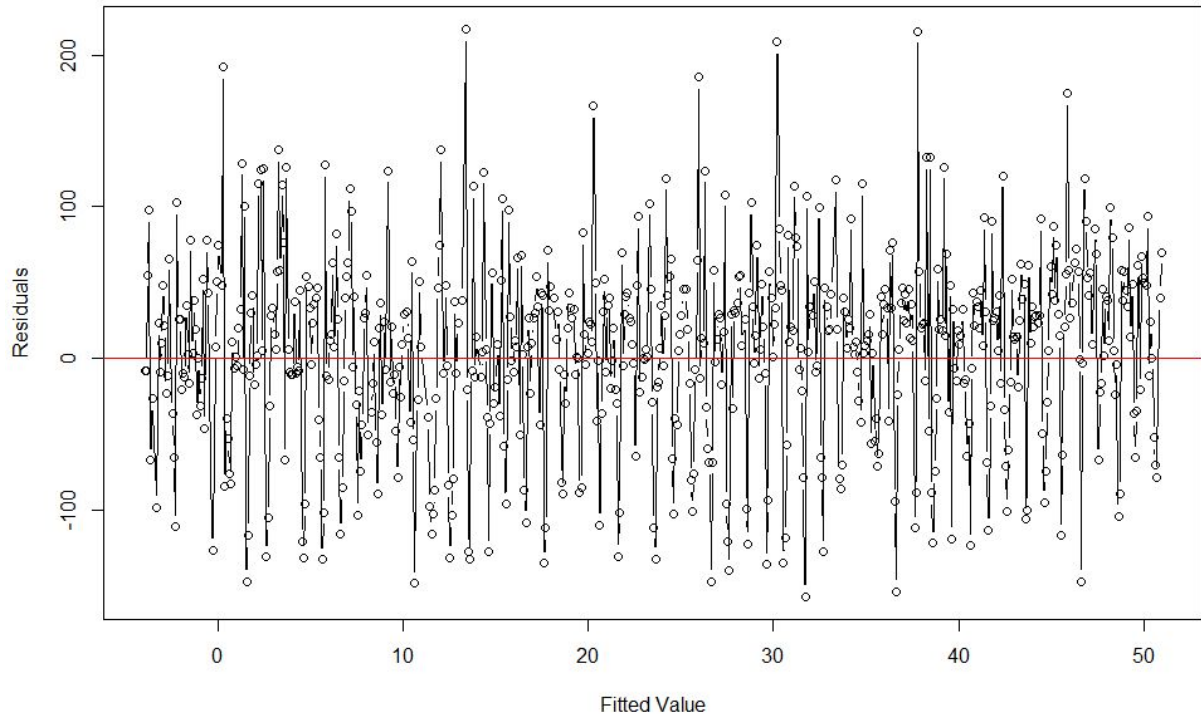
$R^2 = 0.2698506$

I believe that the rainfall model still needs some work. We would like to see the model capture some of the higher values. The our squared is 0.2698506. This means that about 27% of the variation is explained by our model. This is not a very good our squared.

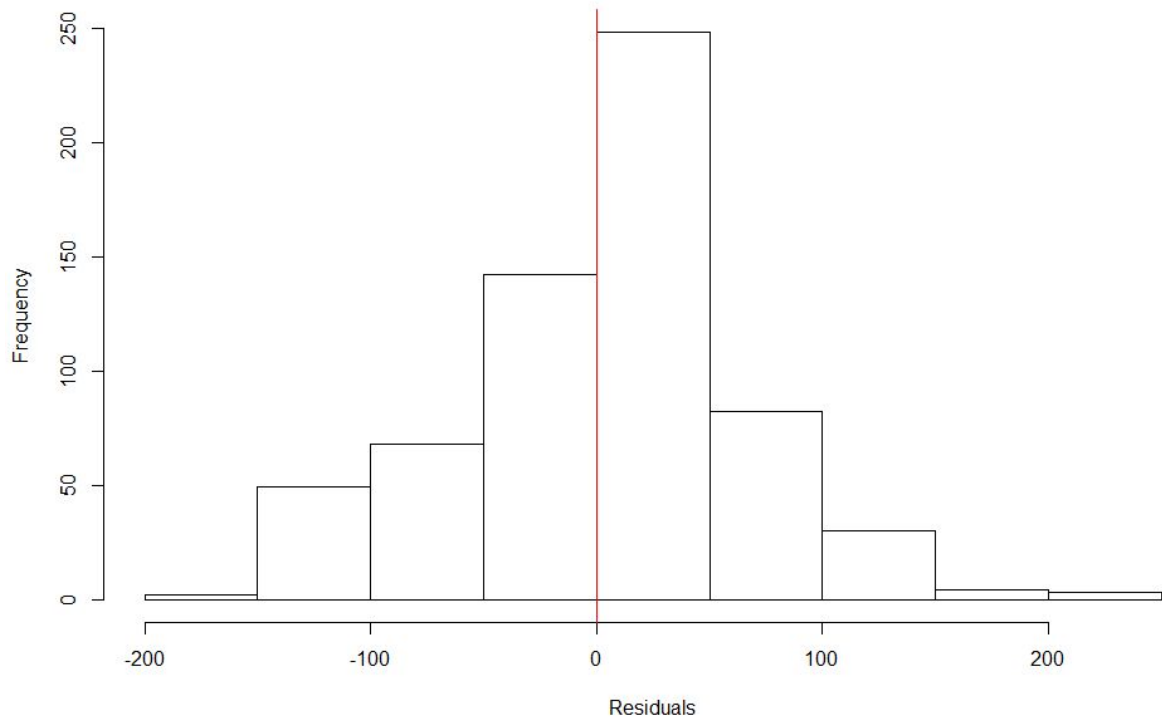


The residuals are pretty centered around zero. There is some pattern to the residuals.

Residuals for the Rainfall Data



Histogram of the Residuals for the Rainfall Data



The Minimum and Rainfall Models do not fit Tabligbo very well. The residuals for the minimum model are fine there is a slight pattern but nothing to be too concerned about. The R-squared is 0.5895. This means that about 59% of the variation found in the data is explained by the model. The rainfall model is worse. We are not too concerned that the model is predicting negative rainfall because a lot of the data is full of zeros. The R-squared for rainfall is 0.2699. This means that about 27% of the variation found in the data is explained by our model. This is not a good R-squared, R-squared should be in 80% or higher range to be considered decent. The Maximum Model fits Tabligbo fairly well I would not change it. The maximum residuals are centered around 0 which is good but they are not normal. The R-squared for the maximum model is 0.83. This means that about 83% of the variation in the data is explained by the model.