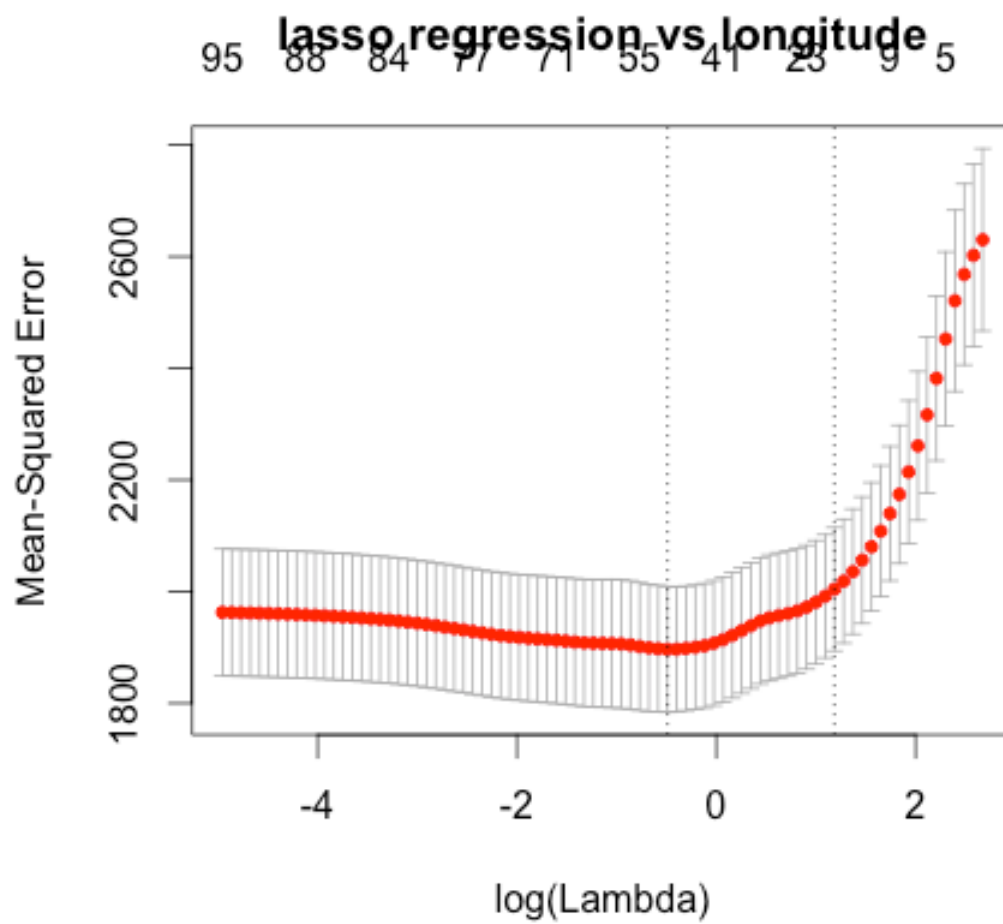


1.

Regularization Lambda: 0.6358245

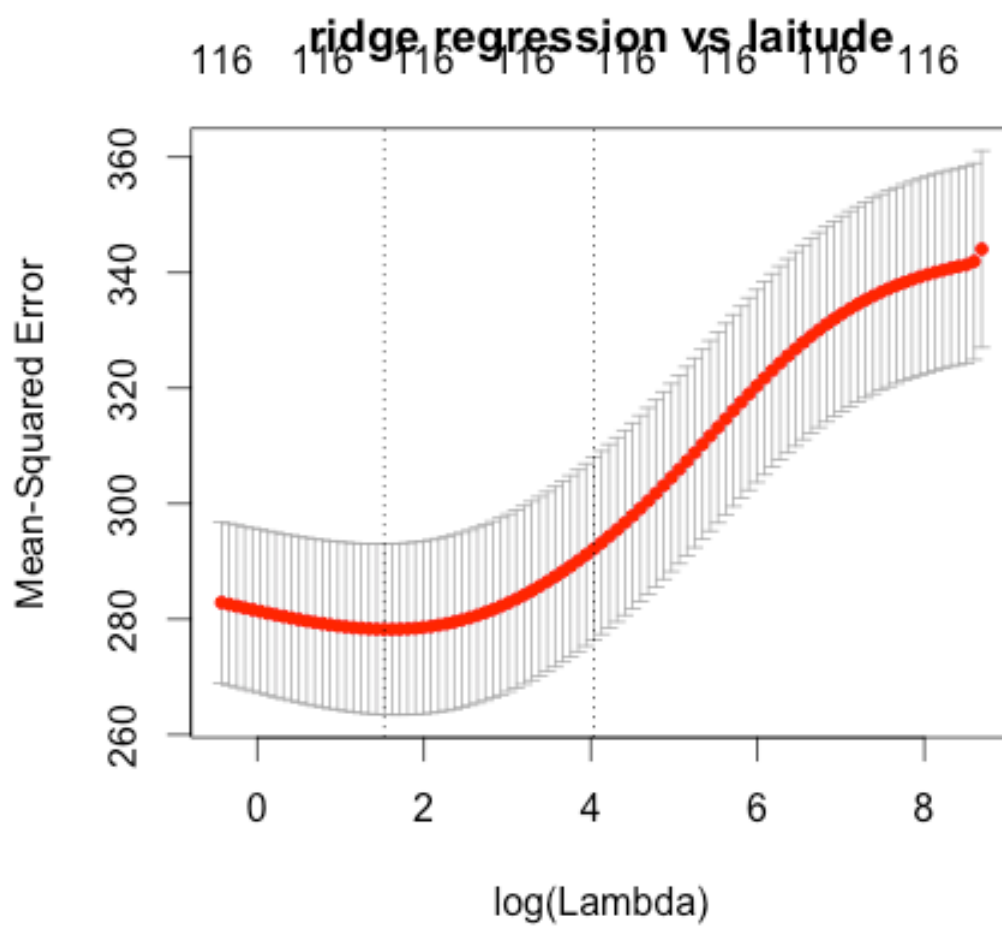
Mean square error: 292.3615



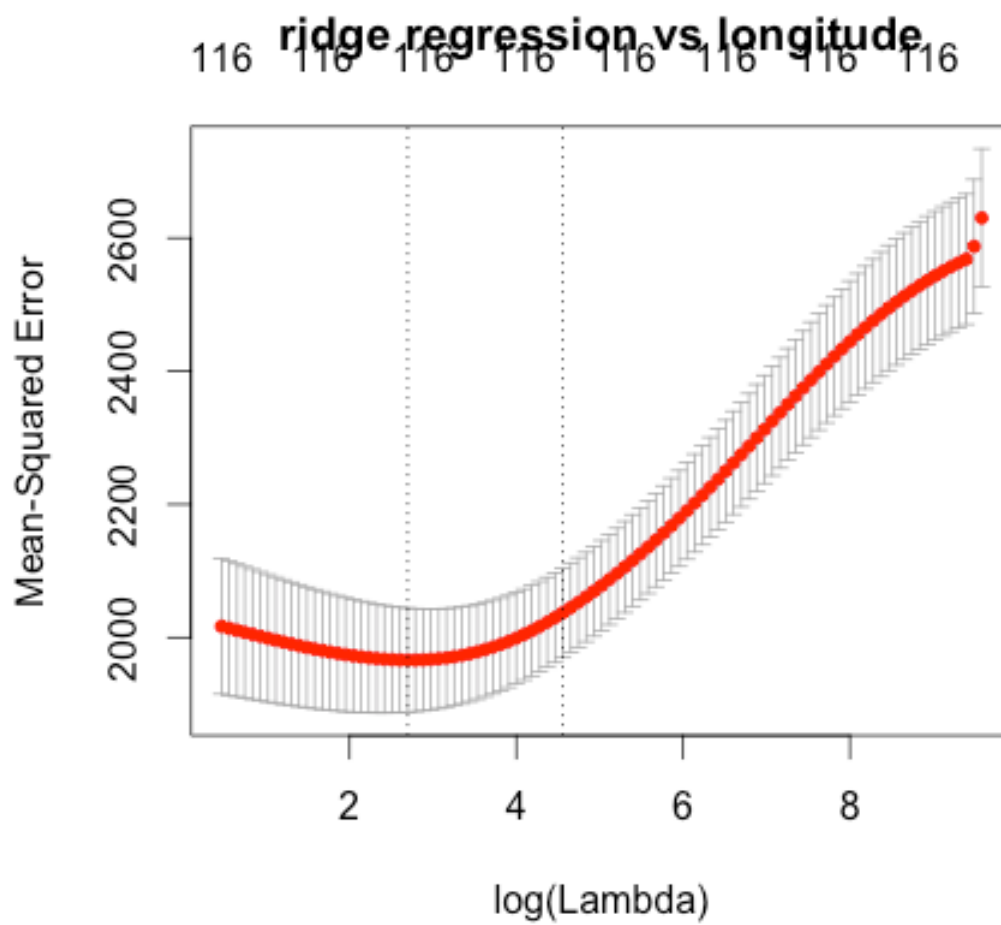
2.

Regularization lambda: 0.803189

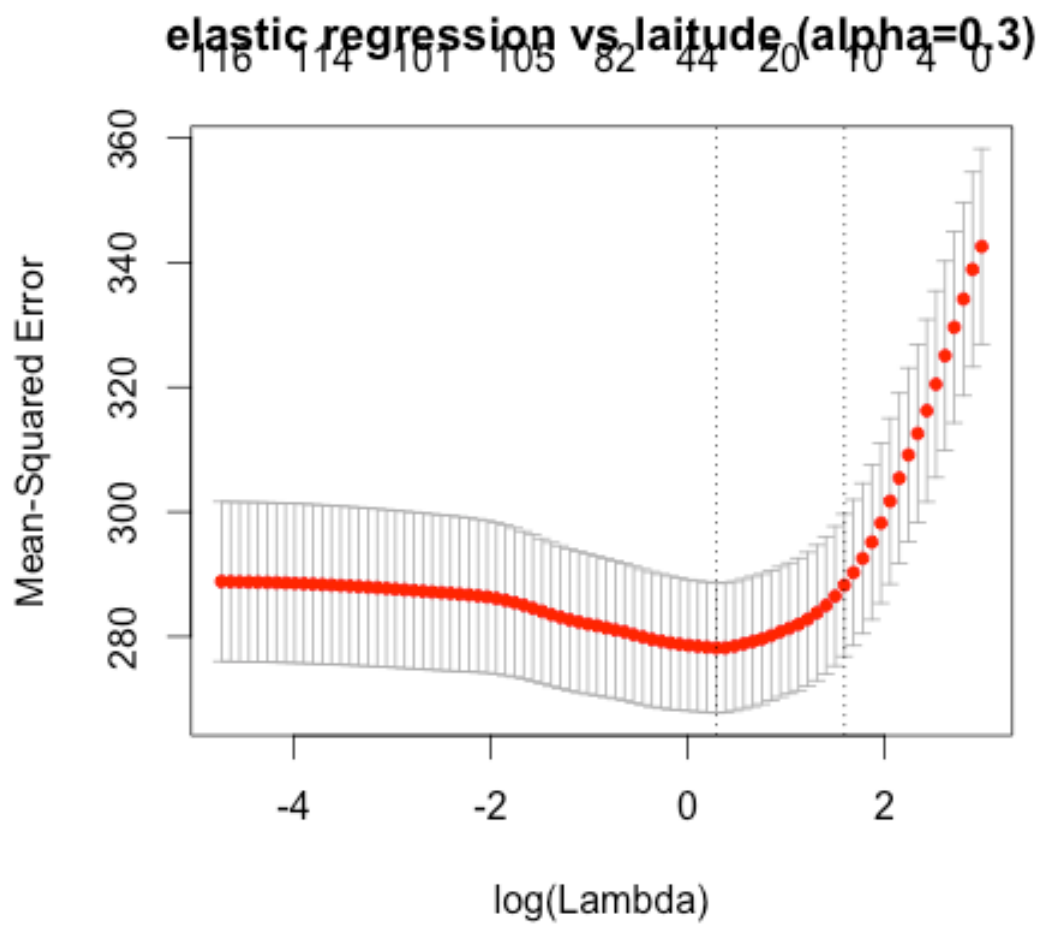
Mean square error: 1941.708



3. Regularization lambda: 9.663966
Mean square error: 291.0583

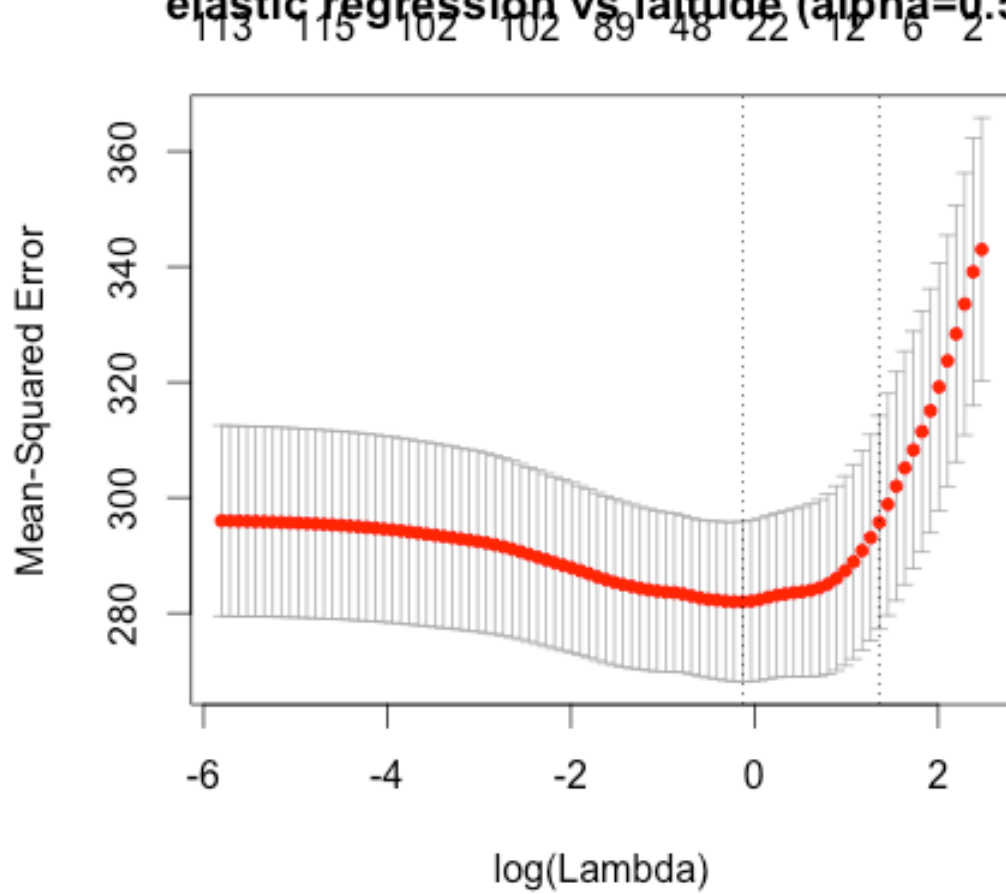


4. Regularization Lambda: 8.41335
Mean square error: 1889.012



- 5.
- Alpha: 0.3
 - Regularization lambda: 1.759575
 - Mean square error: 291.5686

elastic regression vs latitude (alpha=0.5)



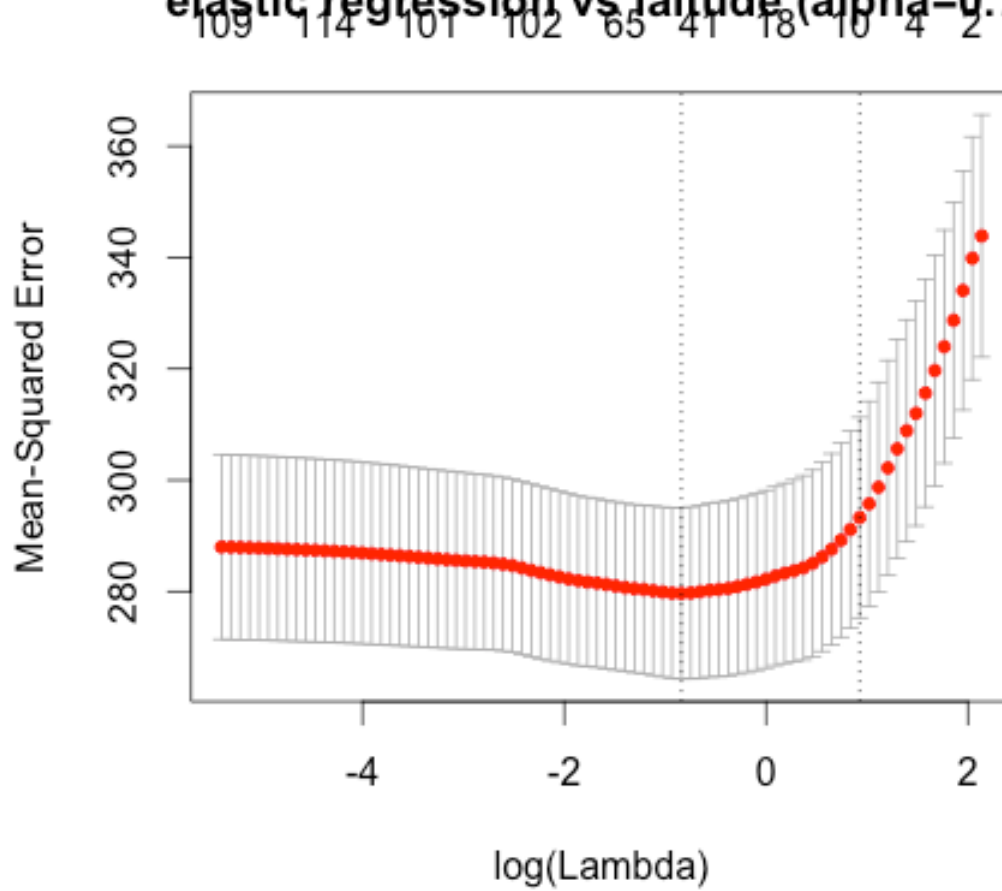
6.

Alpha: 0.5

Regularization Lambda: 1.395633

Mean square error: 292.7855

elastic regression vs latitude (alpha=0.7)

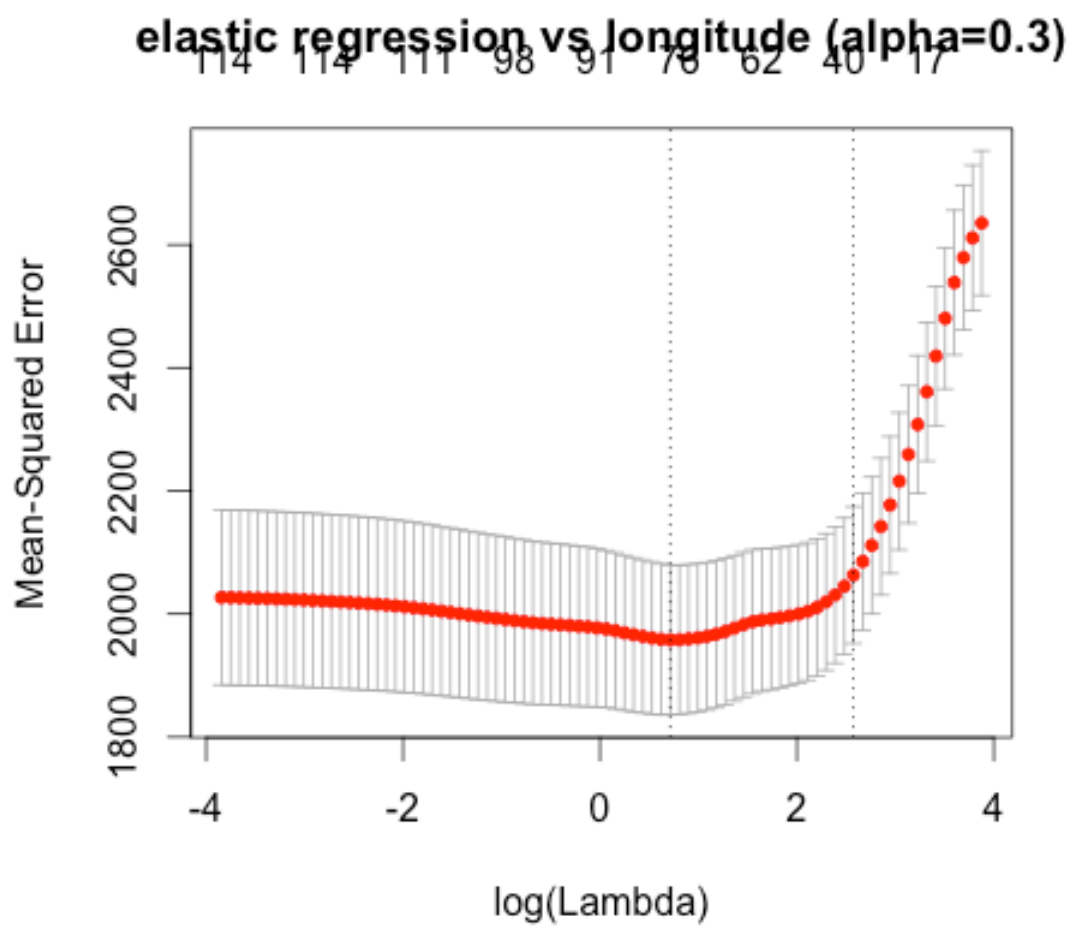


7.

Alpha: 0.7

Regularization Lambda: 0.9083207

Mean square error: 292.3115

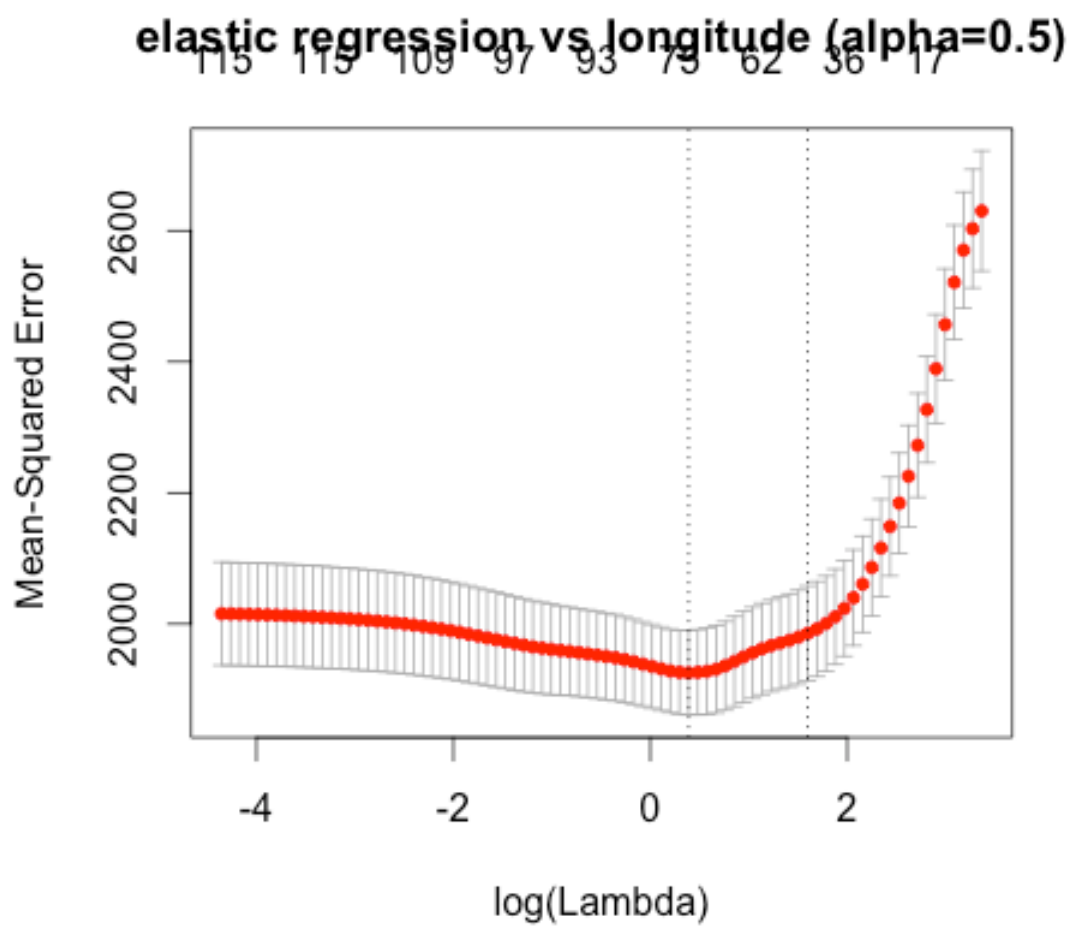


8.

Alpha: 0.3

Regularization Lambda: 2.025277

Mean square error: 1927.69

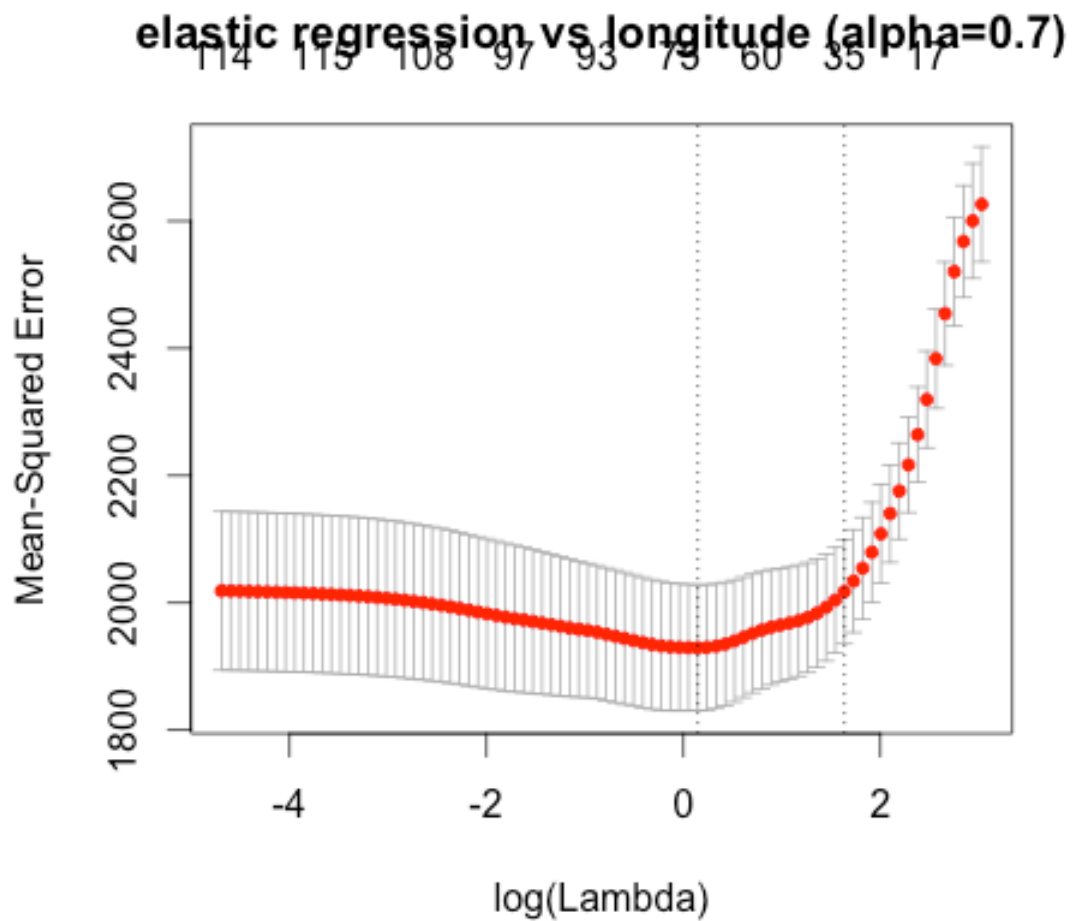


9.

Alpha: 0.5

Regularization Lambda: 1.463672

Mean square error: 1935.508



10.

Alpha: 0.7

Regularization Lambda: 1.147413

Mean square error: 1940.48

Conclusion: Each regularized regression performed better than the ones without regularization. Ridge worked better in both latitude and longitude.