My idea for a final project comes from a conversation I had with family over Thanksgiving last year. While watching football, the question of whether quarterbacks who scramble and/or run have shorter careers than quarterbacks who don’t. A “scramble” is when the quarterback gets the football and then is forced to run with it, as opposed to throwing it immediately (or taking a sack). This exposes them to more dangerous plays, as they subject themselves to more tackles and hard hits from the opposing team.

I scraped the NFL Database and collected stats from all quarterbacks that have played in the NFL. I am going to focus on the number of games played, number of rushing attempts and total yards. My predictor variables will be number of rushing attempts and total yards, while my response variable will be games played. There is a hybrid statistic of these two predictor variables called “yards per attempt,” but I am electing not to use that as I think it is more beneficial to specifically look at the number of rushing attempts. Each attempt has the possibility of ending in a tackle and big hit, so I think it is important to focus on the raw statistic. Also, I could look at years that each quarterback played in the league, but I think it is more important to specifically look at the number of games they participated in. This eliminates any variability in how many games were played by each team throughout a season (e.g. a strike in 1982 reduced the season to 9 games), and any games a quarterback may have sat out due to injury or other reasons.