Project process:  
Initially I looked at a few combinations of variables for any sort of obvious trends or patterns, however details of the data like income (which is traditionally right skewed) and self reported survey data did not yield any striking relationships between those that quit and those that remained at the company.

I instead turned to industry knowledge to verify the potential predictors that are generally cited in peoples decisions to quit.

“Some of this analytical work is generating fresh insights about what impels employees to quit. In general, people leave their jobs because they don’t like their boss, don’t see opportunities for promotion or growth, or are offered a better gig (and often higher pay); these reasons have held steady for years.”

<https://hbr.org/2016/09/why-people-quit-their-jobs>

According to the journal article there are 3 main reasons why employees quit.   
Bad managers  
Low Pay  
No growth or promotion opportunities.

“A new Pew Research Center survey finds that low pay, a lack of opportunities for advancement and feeling disrespected at work are the top reasons why Americans quit their jobs last year.”

<https://www.pewresearch.org/short-reads/2022/03/09/majority-of-workers-who-quit-a-job-in-2021-cite-low-pay-no-opportunities-for-advancement-feeling-disrespected/>

This Pew Research articles corroborates the same thing.

A few categories of consideration:

Manager Issues:  
Years with Current manager  
Relationship satisfaction  
level in company

Promotions:  
Years at company  
level in company  
years in current role  
years since last promo  
training in prior year

Low pay:  
Role  
monthlyincome  
percentage of salary hike

Easiest for me to grock is the income piece.   
Test for each job role “low or high pay” as a percentage of difference and the determine the

H0: µincome,Q =µincome,NQ  
Ha: µincome,Q =/=µincome,NQ

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Based on the Confidence interval of .95 with 868 degrees of freedom there appears to be a statistically significant difference in the pay (p = 4.422e-06) this is based on a test stat of 4.6199 and critical value of 1.64661. Assumed equal variance for a 2 sample test.

It is worth exploring additional diverging factors among job titles.

Each job subset has different shapes

Only 2 showed significant differences in the data Researchers and lab techs, potentially leave for more money.   
  
Important note in looking at break down. Level may be a predictor

Tests for satisfaction predictor and involment predictor A screenshot of a computer

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3 tests so far BF of k =3 still under Pvalue.

Overall I just started to pair off variables until I found some obvious trends and then created variable to capture those details the