**Executive Summary**

*I will be delving into the housing crisis in Davidson County. Currently there is almost no way someone can afford to purchase a house in Davidson County. I’ll look at a variety of factors touching on some examples of salary calculations, what people think of their neighborhoods, and how it all breaks down by zip code. I’ll be using interest rates based on a 10-year-fixed and 20-year-fixed. And while there is not publicly available data on every person’s salary in Davidson County, there is for government employees, which is what I’ll be using.*

**Motivation**

*As my friends and I were sitting around discussing our housing situations, some just bought a house with a mortgage payment of over $3000. Another couple just sold their house and are currently renting because they could not find another home they could afford. And then there is me. A single father who also takes care of his mother and niece, who currently rents, and has less than $20,000 in savings. Currently the situation looks bleak for finding an affordable home to own. So, I wanted to do some analysis around this unattainable portion of the American Dream.*

**Data Question**

*Can the average Davidson County resident afford a home large enough for the average size family?*

**Minimum Viable Product (MVP)**

*Once completed, my capstone will consist of multiple dashboards in Power BI that will showcase visualizations of the cost of housing by zip code. It will also contain a breakdown of the livability of each zip code and a quantification of the cost differential in order to feel safer in your home for example. Given that this housing crisis is a national issue, our federal legislators would be the ideal audience in order to enact change. However, since this data primarily focuses on Davidson County, our own city council and Mayor O’Connell would be the target audience.*

**Schedule (through <date of demo day>)**

1. Get the Data (12/6/24)
2. Clean & Explore the Data (12/11/24)
3. Create Presentation of your Analysis (12/16/24)

* Should be a presentation, but could include a Jupyter Notebook or dashboard in Excel, Tableau, or PowerBI

1. Internal demos (12/20/24)
2. Demo Day!! (1/10/25)

**Data Sources**

* *Survey of Nashville Residents as well as City Employee Salary data: data.nashville.gov*
* *Housing cost data: nashvillesmls.com*

**Known Issues and Challenges**

* *Survey data is difficult to quantify, so numeric values will need assigned using a loop in Python for every relevant column*
* *The government employee data may not be as compelling as wage information for all, but it is unfortunately unavailable*