

U.S. Election Data Scraping and Analysis Project

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1 INTRODUCTION

For our school project, we decided to study how Americans vote in presidential elections. We picked the website 270toWin because it's one of the best places to find election information that's easy to understand. The site shows all the important details - which states voted for which party, how many electoral votes each state gets, and how elections have changed over time. Our goal was simple: take all this information and organize it in a way that would help us spot interesting patterns. While the website had most of what we needed, we noticed some information like exact vote counts wasn't available, so we had to work around that.

2 WORKING WITH THE WEBSITE

Getting the data wasn't as easy as we first thought. The biggest problem was that if we tried to get information too quickly, the website would block us. We solved this by making our program wait a second between each request and by keeping our connection to the website open instead of starting over every time. Another tricky part was that each state's page looked a little different - some had the information we needed in different places. We used special tools that could find the data no matter where it was on the page. At first, our program was really slow because it looked at each state one by one. But then we figured out how to make it check multiple states at once, which made it work about five times faster!

3 WHAT WE LEARNED FROM THE DATA

The information we collected shows which states are most important in elections. Some states like Florida and Pennsylvania often switch between parties, while others like California and Texas almost always vote the same way. States with more electoral votes, like California (55 votes) and Texas (40 votes), have a bigger impact on who becomes president. We couldn't find exact vote numbers on the website, which would have helped us understand things like how many people actually voted. But we could still see interesting patterns in how states voted over time.

4 HOW WE COULD MAKE IT BETTER

There are several ways to improve this project. We could make it even faster by using more advanced programming techniques. Adding vote numbers from other websites would give us more complete data. It would be cool to create color-coded maps that show voting patterns or even try to predict future elections based on what we've learned. We could also connect this information with population data to see how different groups of people vote.

5 FINAL THOUGHTS

We successfully gathered useful election data from 270toWin, even though we had to work around some challenges. While we couldn't get every detail we wanted, we now have a good collection of information about how different states vote in presidential elections. This could be the starting point for more research, like tracking elections in real time or creating interactive maps that help people understand voting trends. The program we wrote is available for anyone who wants to continue working on this project.