Testing

Serina Chidera Ndukaire

In this document I will be going through the testing of my code. I will be storing this in a table and where the testing has become unsuccessful, I will provide screenshots of the unsuccessful code and what I did to change the outcome.

- When user clicks a menu option it should list a new menu given options of specific requirements

- Parties: view mps in a party, view total party votes, view party votes as precent of votes cast, back to main menu

- Constituency: view constituency by region, view valid votes of a constituency, view valid votes as a percentage of total votes, back to main menu

- MPs: view mp votes name, list by party, list by region, back to main menu

- Statistics menu: view avgerage votes per constituency, view total mps, view total votes cast, save stats to file

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| Use Cases | Test | Result | Response |
| Display welcome message | Print and run code | Successfully printed with time sleeps | Not needed |
| List user options/menu | Create loop and run code | Success | Not needed |
| Create input to determine what user enquires about | Get user input and store in variable | Success | Not needed |
| Use try and expect so user uses correct value | Include try and except alongside input that only accepts values in range | Unsuccessful  My program would detect when a non-integer had been inputted however, would continue to run if input is an integer out of range.  [{2BE6ABD5-E353-4EB6-A421-1F185177D8B1}](https://olympus.ntu.ac.uk/storage/user/2472/files/b3515e5e-d0fc-46aa-bd1e-603d883924bf?token=AAAATKFFOOIAAZAIRKZC2J3HJCMF2) | I developed a function that reduced repeated values. I also used less raw numbers in my code in case I want to add more options in the future.  [image](https://olympus.ntu.ac.uk/storage/user/2472/files/02bc0151-20f8-4902-b58f-e245472c5a98?token=AAAATKAFB3ZYLUTD3MKVWBDHJCMF2) |
| Create classes for parties, mps and constituency | Create reasonable objects that users may want to enquire about | Success | Not needed |
| List data when selecting menu option | Print out whole column of Constituency | Success | Making more options for user to choose from when enquiring data |
| Gets user input and prints out menu options based on it with error detection | Get inputs for the user | Unsuccessful  I attempted to make it so I don’t have to code out each number a user will input when selecting an option. However, I realised on the long run this will just make it harder to create options within those options  A screenshot of a computer code  Description automatically generated | I hard coded it making it easier for me to add more options in the future  A screenshot of a computer program  Description automatically generated |
| Read from csv file | Create loop that reads rows from csv file and stores info in individual mp classes | Success | Not needed |
| Loop through menu options | When user clicks on menu option print heading | Unsuccessful  The loop would not break after hitting exit as other loops where still running | Added breaks that will break out of loop |
| List enquired data | List all MPs in file | Unsuccessful  Would only print out the first names of the MP  A screenshot of a computer program  Description automatically generated | Made a variable mp name that merges the first name and last name together  A computer code with text  Description automatically generated |
| Allow for user to input data in lowercase | Get user input | Unsuccessful  Would return as not found when inputting data in lower case | Save the data using lower.() and coverting user input to lower() when checking if data is equal |
| Calculate statistics | Add total votes for a constituency | Unsuccessful  There seemed to be commas in the csv file I downloaded that would not allow me to read data as an integer  A close-up of a number  Description automatically generated | I uploaded a new file without commas then added all the constituency votes within the class. Calling the get votes function returned the total  A computer code with text  Description automatically generated |
| Calculate statistics | Add total votes for a given party | Succes | Developed another outcome that works and returns total votes of given party  A computer code with text  Description automatically generated |
| Calculate statistics | Get party votes as a precent of total votes cast | Unsuccessful  As I was calculating both total party votes and votes cast, there was something wrong with the indentation  A screenshot of a computer code  Description automatically generated | I used a more efficient less wordyway to tackle this problem and iit worked greatly. I used the built in sum() method that allows for less lines of code |
| Save statistics to a txt file | Create a new file to store statistics in a dictionary that can be viewed in a statistics menu option | Success | Not needed |