Population Presentation

Dario: Good evening Instructors and fellow classmates, today we will share our website that we prepared that takes a deep dive into the worlds population. When choosing our topic, my group members and I wanted to find something that had a lot of information to draw from. Our plan was to create an interactive map that showed all the countries of the world along side a dropdown menu where the user could select from the top 10 countries of the world and obtain information on them. We used the website “worldometers.info”, “data.worldbank.org” and received inspiration from “worldpopulationreview.com”. Using these websites and methods we learned in class, we scrapped the data we needed in order to build our website. We used pandas, jupyter notebook and python code to scrape and organize the data in order to make it easily accessible for us to call to it when needed. Once the data was obtained and in easily accessible excel sheets, we then used “SQLiteDatabaseBrowser” to create our SQLite databases. “SQLiteDatabaseBrowser” was given to me by one of my tutors and came highly recommended. Once I learned how to use the program, creating databases were a breeze and I highly recommend other students use this method going forward. The program is easy to navigate, you simply import the excel files you wish to use and it creates all the tables based on the columns you have. You can make changes after, but I found it easier to do all the necessary cleanup to the columns on pandas prior to running them through this system to create the Databases. Once we had our databases it was on to the next step of creating our HTML and website as a whole.

Brett: Using code learned in class as a reference, I wrote the specific lines needed to start the HTML creation (Go more in depth on this topic, around 30 seconds of time is available). Once the website was ready, I created an interactive world map at the top of our website. I then turned my attention to the databases. In order to connect the information we had in our database to the specific countries and their positions on the map, I added each countries latitude and longitude to the database. This made it possible for the user to click on a country and receive the proper information. Without this step, clicking Canada may have given you Italy’s statistics. Upon completion of the proper code, the map gives the user the opportunity to hover over and click any country they wish to learn more information about. Once they click on a country, the popup provides the user with the countries population, yearly percentage change, net change, land area, fertility rate, median age, and the world population. The next step in our project was to create the drop down menu.

Justin: Using the previously mentioned Databases, I started work on the drop down menu. The most difficult part in this step was \_\_\_\_\_\_\_\_\_\_ (30 seconds to describe the code and issues you ran into). Once the drop down was up and running, with the ability to call on whichever country the user clicks on, 3 more visualizations were present. A bar graph, a line graph and a pie chart. We selected these visualizations for the simple fact that they create a very easily digestible way to interpret the data. Some of the conclusions that came out of the line graph are (20 seconds to discuss, eg: Russia’s population is on the decline, India’s population has more than doubled from 1980 to present day growing to the largest population in the world today which was previously held by China for around the last 70 years). To round off our visualizations, a well constructed bar graph and pie chart were designed.

Rebeca: In order to create the bar graph and pie chart I (30 seconds, go into code and any issues you came across). Once I was able to get the bar graph and pie charts completed, the data we were working with again became more easily digestible. Some of the conclusions I came to by looking at the visualizations are as follows (30 seconds to discuss conclusions, eg: our top 10 countries account for 57.2% of the worlds total population. Just China and India alone account for 35.5% of world population. Since the baby boom, world fertility has been on a steady decline). Thank you Instructors and fellow classmates for listening to our presentation and we hope you learned something about world population or maybe are now interested in looking more into our website to come to your own conclusions. We now open the floor for questions.