Team 8
Initial Project Plan Doc

How Has Crime Changed in St. Louis, MO from 2021-2023

1) **Team Members:**
   Leslie Bland, Luther Johnson, Cameron Keplinger, Eshumael Manhanzva, Valarie Miller, Saurabh Singh

2) **Description/Outline:**
   The objective of this project is to determine how changes in crime t. Louis, MO.

3) **Research Questions:**
   Evaluating crime in St. Louis, MO from 2021 -2023

   Has crime decreased or increased from 2021 - 2023?

   Does crime peak by season of the year (winter, spring, summer, fall)?

   How have the different types of crime increased or decreased?

   Do crimes trend a certain way compared to time of day?

   What time of year has the least amount of crime?

4) **Datasets:**
   a) St. Louis crime data - need official name

5) **Requirements:**
   1) **Effectively use GitHub for version control** **(10 points)**

      Git branching workflow:
      https://git-scm.com/book/en/v2/Git-Branching-Branching-Workflows

      Git/GitHub: https://github.com/MichaelDesantis/No-Nonsense-Github-Project

      Visual Git Guide: https://marklodato.github.io/visual-git-guide/index-en.html

      Git Command Line Tutorial: https://git-scm.com/docs/gittutorial

Create a branch:
https://docs.github.com/en/get-started/using-github/github-flow#create-a-branch

Working with GitHub in VS Code:
https://code.visualstudio.com/docs/sourcecontrol/github

2) **Create documentation, including a well-formatted README (10 points)**

Awesome README: https://github.com/matiassingers/awesome-readme

Standard README: https://github.com/RichardLitt/standard-readme

Art of README: https://github.com/hackergrrl/art-of-readme

3) **Deliver strong analysis and conclusions (30 points)**
4) **Build 6-8 visualizations (20 points)**
5) **Present findings in a slideshow presentation (30 points)**

6) Presentation

1) Each project team will have **7 minutes to present**
2) Each team will have **3 minutes of Q&A**
3) Presentation **slides and demo are expected**
4) Although it is **highly suggested that each team member participate** in the presentation, you can designate 1 (or more) person to present only
5) Feel free to **add some pizzazz (Look at Streamlit https://streamlit.io/)**

7) Roles/Project Plan

1) Choose datasets (see #4 above)
2) Define focus area
3) Perform EDA (Exploratory Data Analysis)
    a) Luther, Cameron will source crime and weather data
    b) Eshumael, Saurabh will interrogate weather and crime data
4) Set up the REPO - Leslie
5) ****Each person creates own branch*****
6) **Create documentation - Valarie**
7) Create README - Leslie
    a) Approach
    b) Systems/Tools - **Use VS Code**
    c) Objective
8) Work on presentation - Leslie, Valarie, Luther, Saurabh, Eshumael (demo)
9) **Put forth strong analysis and conclusions - ???**

The four main types of data analysis are: descriptive analysis, diagnostic analysis, predictive analysis, and prescriptive analysis.

Descriptive analysis:

Summarizes raw data, providing basic insights like averages, counts, and trends, answering "what happened" questions.
Diagnostic analysis:
Investigates the underlying causes of observed phenomena, exploring "why something happened".
Predictive analysis:
Uses historical data to forecast future outcomes and identify potential trends.
Prescriptive analysis:
Recommends optimal actions based on predictions, suggesting "what to do" to achieve desired results.

4 Types of Data Analytics to Improve Decision-Making
https://online.hbs.edu/blog/post/types-of-data-analysis

a)

10) Create 6-8 data visualizations - ???

11) Conduct presentation - All???

a) Leslie -
b) Valarie -
c) Cameron -
d) Luther -
e) Saurabh -
f) Eshumael -

12) Who does demo?

a) Use Streamlit?

8) Schedule/Calendar

Mon. 12/9	**Tues. 12/10**	**Wed. 12/11**	**Thurs. 12/12**
• Project Kick-off- • Outline project ideas • Initial data exploration • Project proposal • Started with oil/gas	• Data prep and initial analysis • Coding • Pivoted to crime in St. Louis • Data sourcing	• Data sourcing • Data interrogation	• Coding • Data interrogation • Evaluate where we are

Fri. 12/13	**Sat. 12/14**	**Sun. 12/15**

Check-in?	**Meet?**	**Meet?**

Mon. 12/16	**Tues. 12/17**	**Wed. 12/18**	**Thurs. 12/19**
Coding	• Presentation Prep • Practice run through • Project complete (except last minute touches)	**Meet for dry run?** **Luther open** **Eshumael open** **Valarie open after 6:30ish**	• **Presentation Day** • **Project files due**