**Title: Developing a Web-Based Historic Places Map: A Tool for Promoting Historic Preservation and Tourism**

**Introduction & Objective**

The practice of historic preservation allows for fresh perspectives, insights, and questions to be asked of the past. The practice of historic preservation allows for fresh perspectives, insights, and questions to be asked of the past. A historic places map helps people discover and learn about historic landmarks and monuments in a particular area. Thus, this project intends to create an interactive map that will be created using data from various sources such as historic preservation organizations, government agencies, and museums. It will include information about buildings, sites, monuments, and landscapes that are significant and registered because of their architectural, cultural, or historical value in Iowa State between 2013 till 2023. The map will be accessed through Tableau that allows users to explore and interact with the data. For example, users could click on a particular city to see detailed information about the historic places located there and click on the points from the Map to read about each individual historic property. By providing an interactive tool for discovering and learning about historic places in a particular area, the map can help foster a sense of community and identity among residents and visitors. It can also help raise awareness about the importance of preserving historic landmarks and monuments for future generations.

**Tools**

* ArcGIS Pro
* Tableau

**Methodology**

Step 1: Data collection. I got my data from the National Historic Register website, which was in an Excel format.

Step 2: Data cleaning and filtering to suit my objectives. I had 294 historic properties on my Excel document after cleaning.

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Step 3: Geocoding. The Excel file provided the address, but we need their coordinates to visualize their spatial location on a map. To achieve this, I:

1. Imported the cleaned excel document to ArcGIS Pro
2. Used the Geocode Address Tool on GIS, entering the right information to generate the coordinates.

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1. The output is as shown below. However, there were some addresses that could not be matched, and some were tied.

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Step 4: I exported my data points as a feature class, and saved as *heritage.shp*

A picture containing text, computer, display, display device

Description automatically generated

Step 5: Back on my Excel document, the area of significance column is very distinct, which will not be helpful in visualizations. So, I needed to think of a way to classify these properties to make them understandable. I classified them according to their significance criteria (see column significance, which is explained in detail on Tableau), drawing reference from the National Historic Register.

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Step 6: Now, there is another problem. The historic properties that I wanted to display have no external link. This implies that I have to manually source each historic property’s information.

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Step 7: Adding data to Tableau. In this step, I added my Excel file. Based on my selection, I figured that not all 99 counties had historic properties, so I needed to get my counties' shapefile for better visualization. I added the city shapefile in case it might be useful. I downloaded the data from the Iowa geodatabase.

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Step 8: I joined the data to form a connection.

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Step 9: Data Visualizations on Tableau. In this step, I created my desired visualizations based on my classifications on several sheets using the color and detail tools and the tooltip. Some examples are shown below:

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A screenshot of a map

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I also created tables for summary statistics, and to make the map more interactive.

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Step 10: Creating Dashboards. I used my sheets and dashboard tools to create several dashboards in this step. Examples are shown below:

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Step 11: Adding Links. This step was a little tricky for me. I initially used the action tool from the worksheet and followed the instructions, but it did not work. Then, I was advised to add my URL as a detail in the sheet and rerun the process, but it still did not work.

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Description automatically generated

In the process, I got another piece of information to ensure that my Excel columns are in this format—https://en.wikipedia.org/wiki/………………..It still did not work.

So, I figured I needed to remove the “- Wikipedia” at the end of the links and the https://......from the beginning, too, to make it look like this:

A picture containing text, screenshot, number, font

Description automatically generated

Step 12: Back to Tableau. Here, I refreshed my data source again to reflect the changes. I removed the previous link from the detail on my worksheet and added my new links as detail. On my worksheet from the menu bar, I selected my worksheet>Actions>Add actions, which opens a new interface. I selected my source sheets and changed the run action on to select. For the URL, I now entered https://en.wikipedia.org/wiki and clicked on Insert to the right to add the column that contained my links (in this case, AnalysisLink), and it worked!

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Step 13: Creating a Story. In this step, I put my dashboards together to form a story, which is the final output of this document.

Step 14: Cleaning. I returned to my sheets and cleaned maps and tables to be visually appealing.