



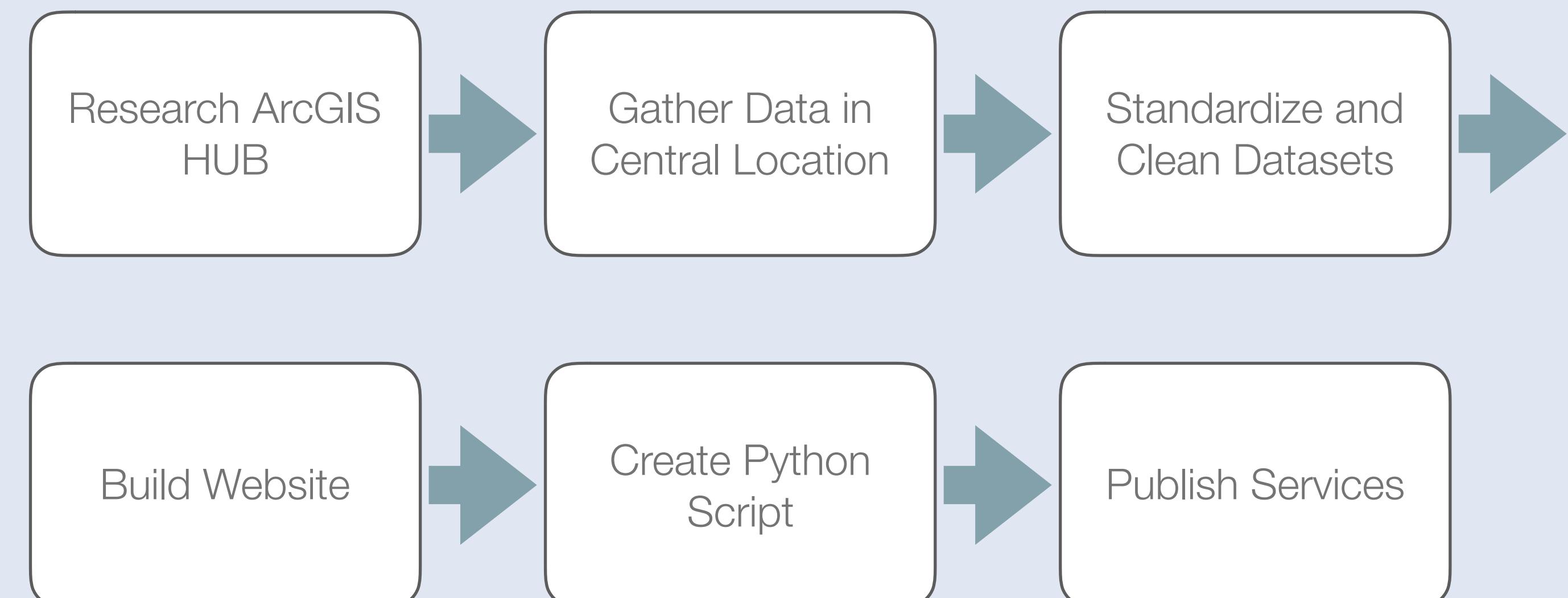
Creating an ArcGIS Hub Website to Host Wildlife and Wildland Open Data

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Introduction

The purpose of the project was to create a website hosting open data that the Wild Utah Project has either curated or created. Wild Utah Project is a non-profit that focuses on conservation concerning wildlife and wildland in Utah. Part of their organization is to provide mapping and geographic information systems (GIS) analysis combined with conservation biology. As their research and data increases, there comes a need to share and disseminate this data more efficiently. To fulfill this mission, it was decided that an open data website would be created using Environmental Systems Research Institute's (ESRI) product ArcGIS Hub. A key feature of this website is that all of the data are open and free to anyone seeking data related to conservation in Utah.

Methodology



Generalized steps taken from start to finish

a. Data Preparation and Cleaning

There were multiple steps to finish before building the open data website. First the data had to be cleaned which involved grouping the data by categories such as "Eco-regional Planning", "Wildlife Models", and "Habitat". Extraneous fields in the attribute table of a layer were deleted to decrease the size of the file and to make the data easier to understand. Many datasets being used on the website did not contain metadata, so this had to be added. Finally, a disclaimer was added that states that there are no warranties put on the data by Wild Utah Project and that the datasets should not be solely relied upon for planning purposes.

b. Website Creation

The website that will host the datasets and be available to the public was created using ArcGIS Hub. For this project, HTML and CSS were used extensively to create a website that looked custom and also followed design principles of the Wild Utah Project that is already in place (Figure 1).

c. Uploading the Data to the Server

Rather than upload every map document individually to the server, a python script was utilized to publish multiple services at once. This saves time and redundancy on this process. (Figure 2).

Results

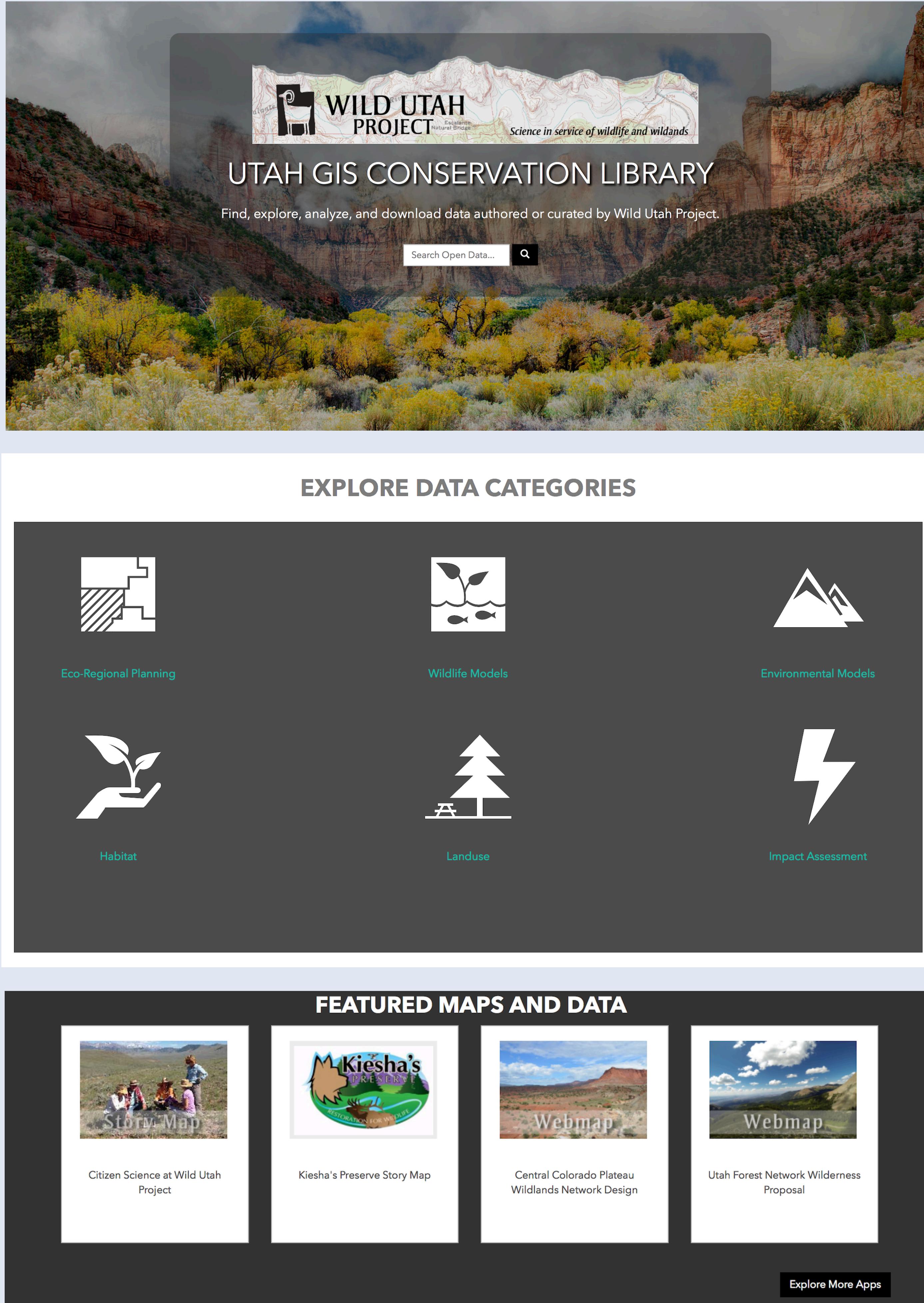


Figure 1. The main components of the front page built using ArcGIS Hub, HTML, and CSS. Design was based on the main Wild Utah Project Website to allow for continuity. The minimal design is user friendly which allows anyone to be able to find and use the data

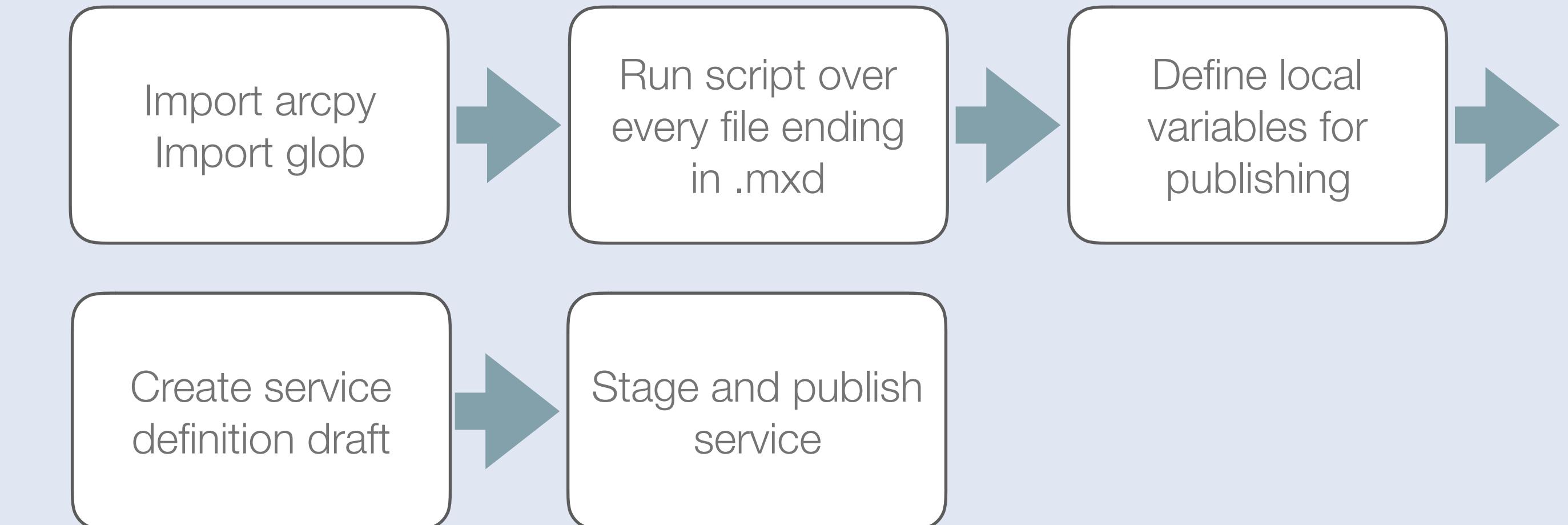


Figure 2. The python script that automates publishing multiple map files to the server

Conclusions

Wild Utah Project is a successful nonprofit environmental organization that has aided in, or completed multiple conservation projects. As their growth continues, number of datasets also grows. With their need to make the data available to the broader public due to time constraints and a general desire to further conservation across Utah, an open data website will undoubtedly aid in this.

To enhance efficiency in the future, datasets should be cleaned and organized by removing extraneous information, and adding metadata should be standard practice from the beginning so that they can be easily uploaded to the website. The python script proved to be a useful tool to limit redundancy and reduce time spent on publishing services.

Acknowledgements

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