Visit Scotland project documentation

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## Brief description of project topic

#### Overview of Visit Scotland

VisitScotland.com is the official consumer website of VisitScotland, Scotland’s national tourist board. Working closely with private businesses, public agencies and local authorities, we work to ensure that our visitors experience the very best of Scotland and that the country makes the most of its outstanding tourism assets and realises its potential.

To do this, VisitScotland:

• markets Scotland to all parts of the world to attract visitors.

• provides information and inspiration to visitors and potential visitors so they get the best out of a visit to Scotland.

• provides quality assurance to visitors and quality advice to our industry partners to help the industry meet - and strive to exceed - visitors’ expectations.

#### Project brief

Provide insights on Scottish Domestic Tourism for the following based on 2013 to 2019 Scot Gov data to Visit Scotland.

Day Visits based on:

* Activities
* Demographics
* Location Type
* Transportation

Regional Tourism based on:

* Areas visited
* Tourist’s residency

By analysing the data available I am looking to provide Visit Scotland with key insights into what drives domestic tourism in Scotland and what areas they can focus on to help maximise tourist spending and visits.

#### The insights indentified were as follows:

Areas visited and Transport:

For both day visits and regional tourism, the most popular destinations were Scottish cities. People with access to cars and spending significantly more than those without a car on day visits and 60% of all visitors are arriving by car. Questions: What improvements need to me made to the public transport system in Scotland? What can be done to roads/transport system to improve accessibility to rural parts of Scotland?

Activities:

Meals and nights out are at the top of income generating activities. Therefore, it is important to get the hospitality sector back up and running as quickly as possible after covid.

Regional Tourists:

Domestic tourism relies heavily on tourists from England. Efforts need to be made to maintain and increase the level of visitors from England. This will be important as international travel is opening up again and people are looking at booking foreign holidays.

## Data

#### Data sources

All of the following data was sourced from the scot gov statistics site .

Regional Domestic Tourism Scottish Accomodation Occupancy Tourism Day Visits - Activities Tourism Day Visits - Demographics Tourism Day Visits - Location Tourism Day Visits - Transport

#### Types of data

The data provided was in the following forms:

Categorical - characters

Numeric - doubles

#### Data formats

The data come was all downloaded in flat files (CSV) format.

#### Data quality and bias

Looking at the About tab for the datasets on Scottish Gov Survey data, the data quality control measures for the data included regular quality control checks at each stage of the survey. These included checks for the sampling design, selection of sampling methods, design of the questionnaire, how the survey was delivered, how the data was collected, entered and cleaned. The survey dataset may be biased because of the small sample size for some of the categories that the data was gathered for.

## Ethics

#### Ethical issues in data sourcing and extraction

There are no obvious ethical considerations, because the data does not identify particular individuals and their health details.

#### Ethical implications of business requirements

The datasets are covered by the Open Government License, which means the data can be used for private analysis by members of the public, but should not be reproduced for commercial gain.

## Analysis

#### Stages in the data analysis process

1. Planning
2. Data collection
3. Choosing datasets
4. Cleaning the data
5. Exploratory data analysis
6. Creating basic visualisations and graph selection
7. Creating a predictive model
8. Fine tuning the aesthetics elements of visualisations and content
9. Documenting and presenting our findings

#### Tools for data analysis

● Trello (planning & daily checkins)

● Git/GitHub (version control)

● R (data-cleaning and wrangling)

● Microsoft Powerpoint (presentation)

#### Descriptive, diagnostic, predictive and prescriptive analysis

The following methods were used for the analysis

* Descriptive Analytics: The data from past years (2013 - 2019) was analysed to gain insights into what elements of tourism has generated most income and visits in this period.
* Predictive Analytics: A model was created from the past data to help identify was demographic categories are likely to lead to higher income and visits in the future.