

Capstone Project – Business Problem and Background

1. A description of the problem and a discussion of the background. (15 marks)

About Loudoun, County VA

Loudoun County is a county in the Commonwealth of Virginia in the United States. In 2015, the population was estimated at 375,629 making it Virginia's third-most populous county. Loudoun County's seat is Leesburg. Loudoun County is part of the Washington–Arlington–Alexandria, DC–VA–MD–WV Metropolitan Statistical Area. As of 2012, Loudoun County had a median household income of \$117,876. Since 2008, the county has been **ranked first in the U.S. in median household income** among jurisdictions with a population of 65,000 or more.

D.C's Wine Country !

Loudoun County wineries are leading Virginia producers of vinifera and New World grape wines. Soil conditions, temperate climate, access to technical experts and mentors, and skilled winemakers all contribute to Loudoun's growing reputation as "D.C's Wine Country." Whether you visit a winery with your family for a picnic on a sunny afternoon, on an evening outing with friends, or for a special corporate of family event, the wineries have something for everyone to enjoy. Be sure to check each winery's website for special events.

Business Problem & Background

The business problem aims at finding solutions for enhancing the 'Wine Tour/Visit Loudoun websites and apps' that provide visitors/tourists and wine aficionados with 'Wine Trail itineraries' that are developed based on Location/History and other details for each vineyard and based on the knowledge or expertise of the tour operator based on schedule and time constraints.

Solution

For this project my goal is to enhance/enrich the data by using the Location data from 4Square such as reviews, ratings etc., of the vineyards in Loudoun, to cluster and compare wineries data, that will provide the 'Tourists / Tour Operators an opportunity to plan a tour with the trail optimized based on their preferences (individual/group) and make the best out of their trip or visit to beautiful Loudoun county.

It will improve and provide a better recommendation system to increase the Visit experience of the tourists visiting Loudoun, as the tourists will be able to enjoy the tour of the DC Wine country based on the peer reviews/ratings and not limited by the options offered by fixed/staged tours that are typically 'sponsored' or based on knowledge of the local guides....the same solution can help the Loudoun tour organizers come up with a customized 'Wine tour' based on the reviews/ratings from past visitors.

Shortcomings / Future Enhancements (Not in scope or covered in this project)

There are some short comings/limitations like availability of in-depth ratings, feedback, reviews and the amount of data available for these wineries, thus in as long term solution, ability to provide feedback/reviews and also capability for the tourist(s) to be able to provide their 'preference(s)' should be included as part of the app – enabling users to provide feedback on the tour operator, winery visited etc., in simple yet effective ways (Not in scope of this project).