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### Writing 1 Assignment

LetsEat is our machine learning based restaurant recommendation application that allows users to quickly receive a personalized restaurant recommendation. After a user creates an account from our website, they will be prompted to answer a short profile questionnaire to feed our algorithm the basic information of the user. Then, when a user wants to receive a recommendation, they will need to fill out a basic questionnaire about their search, like “How many guests?”, “What’s the price range?”, or “Allergy Restrictions?”. These questions serve as data points for our machine learning algorithm. The ML algorithm will allow the user to receive a more personalized recommendation based on their current wants at the time of use of our application.

The idea of LetsEat began from a problem our group individually encounters on a daily basis. Imagine you are with your friends or by yourself and you don’t know what to eat. You could look at other websites like Yelp or OpenTable, that provide a long list of recommendations of restaurants near you, but it is impossible to select one restaurant. Many people just want one recommendation given to them, rather than a long list of different options. That’s where LetsEat comes in, where individuals or groups of people can use our application to receive one recommendation based on their personal preferences. This saves the headache of going through a long list of restaurants to pick the perfect one for yourself or your group of friends.

There are a couple key things that separate LetsEats from our competitors. First, is the simplicity of the application itself. The user interface and experience will be designed to be simple and quick to navigate through. We plan to minimize the amount of text and buttons on the application in order to make it easy to understand for new users and not have lengthy questions which would affect the simplicity aspect of our application. Second, is the machine learning algorithm that provides personalized restaurant recommendations. Our competitors, such as Yelp and OpenTable, offer a long list of recommendations based on simple filters, such as Distance or Price Range. LetsEat will take personal preferences from the questionnaire and past user history to match and provide the user with one recommendation that we see fit for that specific user.

The most innovative part of LetsEat is the machine learning recommender that gives the user one recommendation. Our machine learning algorithm will only get smarter as the user base grows, since it will be able to match preferences from different users’ profiles to provide the best recommendation for other users of LetsEat. We also plan to feed the algorithm with data from social media and other outlets to increase the accuracy of our recommendation algorithm. Compared to other applications that only take basic filters to recommend restaurants, LetsEat will provide more personalized ones to our users.

Our initial launch is focused in the Washington, DC area which has a vast amount of available restaurants in the area. Our primary target audience for our application are the younger people and specifically college students in the area. Many young college students just want a quick and easy way to find a new restaurant they could enjoy without spending long amounts of time looking through Google searches or Yelp. Targeting a demographic we are most knowledgeable about is important to us for our initial launch.

The overall societal impact LetsEat will have is providing people the convenience of choosing a restaurant. Our application will hopefully become a standardized application to use whenever anyone needs to choose a restaurant quickly. It would also provide local or nearby businesses the opportunity for new people to learn about their restaurant and have more customers through their door.