

W200 - Python Project #1 Proposal

Section: Thursday 6:30 PM

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1. Project Objectives

The objective is to build an application called "Wine Pocket". This application allows user to search for a variety of wines and check their review and other characteristics, at the same time user can establish his / her own lists of wines, including:

- List of wines that he / she wants to taste in the future: Want-to-taste
- List of wines that he / she has tasted in the past: Have-tasted

Within the application, user can also set up a circle of friends to check out their activities on "Wine Pocket", share their feedback and also make recommendations.

The original intention is to practice web scraping in the course of this project. But after consulting with professor, it would be more realistic to utilize publicly available datasets. Therefore, the base datasets of Wine Pocket would come from <https://www.kaggle.com/zynicide/wine-reviews>, which contains 130,000 wine reviews with variety, location, winery, price and description.

2. Design Features

A. Dataset

The dataset will include the following columns:

- Title: The name of a wine
- Country: The country that the wine is from
- Description: A few sentences from a sommelier describing the wine's taste, smell, look, feel, etc.
- Designation: The vineyard within the winery where the grapes that made the wine are from
- Points: The number of points WineEnthusiast rated the wine on a scale of 1-100 (though they say they only post reviews for wines that score ≥ 80)
- Price: The cost for a bottle of the wine
- Province: The province or state that the wine is from
- Region_1: The wine growing area in a province or state (ie Napa)
- Taster Name: The name of the taster

- Taster Twitter Handle: The twitter handle of the taster

B. User Management

Wine Pocket will manage a list a users with the following information:

- Username: unique login identifier
- Password: account credential to log into Wine Pocket. The password should comply with certain strong password policy of the application.
- Email: unique email address registered on Wine Pocket
- NickName: the name that will be displayed to other Wine Pocket users

For the purpose of playing around the application, a list of pseudo users will be loaded.

C. Wine Friend Circle (Desired)

Wine Pocket allows each user to set up their own circle of wine friends by “Follow” or “Unfollow” a user.

- Search for a friend: by user’s username, email, or NickName
- Follow a friend: after finding a friend, user can mark as “Follow”. This friend’s activity will show up on user’s Friend Circle.
- Unfollow a friend: user can “Unfollow” any of his/her existing friends. The unfollowed friend’s activity will no longer show up on user’s Friend Circle.
- Activities of Friend Circle: each tag / reviews posted by a followed friend will be displayed to the user.

For the purpose of playing around the application, a list of pseudo friends will be linked to each registered user.

D. Search, Tag and Review

User can use Wine Pocket to search the review of each wine that is available in the dataset. Search parameters will include:

- Title of a wine, Country, Designation, Province, Point range, Price range

User could also view a list of Top 20 wines with highest points if he / she does not have a particular type of wine in mind to search.

After finding a particular wine, user can perform the following actions:

- Tag a wine as “Want-to-Taste”
- Tag a wine as “Have-Tasted”: if this is marked, user can further
 - Provide his / her own score (on a scale from 0 to 100) to the wine
 - Provide description of his / her own tasting of the wine
 - Add “Recommended” tag if the user would like to recommend the wine to his / her circle of friends

All these tagging and review activities will be posted to a friend that is following you. For the purpose of playing around the application, pseudo activities will be created for a list of pseudo user.

3. Class Definition (Draft)

According to the application features, a draft design of classes is proposed as follows:

Class	Method	Brief Functional Description
Utility	check_password()	Verify if the password created by user meets the minimum password requirements.
	check_username()	Verify if the username created by user already exists in the system: <ul style="list-style-type: none"> - If True: the username cannot be created, need to retry - If False: the user name can be created
	check_email()	Verify if the email created by user already exists in the system: <ul style="list-style-type: none"> - If True: the email cannot be registered, need to retry - If False: the email can be registered Also check if the email address is in valid format of email address
	show_top_wine	Launch a list of top 20 wines with highest scores
	show_popular_wine	Launch a list of top 20 wines with most "have tasted" tags.
User	create_user()	Create a user account on Wine Pocket.
	delete_user()	Delete a user account from Wine Pocket, as well as the user's activities, and the user's linkages with all friends.
	user_login()	Verify if a login username and password are valid: <ul style="list-style-type: none"> - If True: user will be directed to Wine Pocket main menu. - If False: user will be rejected for login and can retry.
	user_logout()	If user is logged into Wine Pocket, he / she can log out.
	search_friend()	Search a user based on searching criteria, and return a list of results
	follow()	Follow a friend. Followed friend will be added to the list of the user's friend list.

	unfollow()	Unfollow a friend. Unfollowed friend will be removed from the list of the user's friend list.
	show_follower()	To launch a list of followers of a user.
	show_following()	To launch a list of users that the user is following.
	search_wine()	Search a wine based on searching criteria, and return a list of results
	want_taste()	Tag a wine as "Want to Taste"
	have_tasted()	Tag a wine as "Have Tasted"
	add_score()	Allow user to give a score from the range of 0 to 100 to a wine
	add_review()	Allow user to enter a brief review on a wine
	recommend()	Allow user to tag a wine as "Recommended"
	show_moment()	Based on user's criteria, to show a list of friends' activities within a certain timeframe.
	show_my_moment()	Based on user's criteria, to show a list of the user's own activities within a certain timeframe.
Activity	N/A	Activity class would contain attributes of a user's activity.
Wine	show_avg_score()	Display the average score of a wine.
	show_review()	Display the latest 10 reviews of a wine.
	show_recommend()	Display the number and recommendation rate of a wine among users who have tasted it.