

Project Component #3

Tree Donation Tracker

Group Members:

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Climate change is probably the biggest threat to humanity in today's day and age. The scariest part is we don't have a good solution to it, and the things we can do to stop it people aren't taking as seriously as they should. The carbon emissions created by burning fossil fuels are the main cause of climate change. Even if you're using electricity, that power was probably generated using fossil fuels. While great strides have been taken in making society greener, it isn't nearly enough to stop climate change or even slow it down to a manageable rate. The best way we have of cleaning the atmosphere of carbon emissions is planting trees and saving already grown forests. Many nonprofit organizations plant trees in deforested areas and rely on donations from the public to fund their expenditures.

My project is a tree planting tracker where whenever you donate to a nonprofit tree planting company, such as the Arbor Day Foundation, it tells you where and what kind of trees were planted with your money. This way, instead of just seeing the money disappear from your bank account and hoping the nonprofit used it in a good way, you'll know exactly how your donation helped the world. People will have much more of a sense that they made a difference if they can see how their donations are being used.

The societal impact this will have is that people will be more inclined to donate and continue donating to tree planting nonprofit organizations. This will in effect cause more trees to be planted and therefore a happier and healthier planet will be the result. We benefit from forests in a countless number of ways. From cleaning the air to cleaning the water to soaking up runoff water to keep our cities from flooding, to providing habitats for wildlife, and many more. Studies have also shown that communities with more trees have less crime and more relaxed citizens. Trees make both the earth and people happy, so anything that causes more trees to be planted is doing a service to the world.

Required Skills

- Python Programming
- Web Scraping
- Connecting to a website and getting information from it
- Creating a user interface using python
- PyCharm IDE

Plan

This project will have two sides to it. The first side is figuring out what information to get and from which websites given user input. This will require web scraping based on maybe a url and pin number given from the user. The second side is figuring out how to create an interface that the user can easily figure out and get the information they need. This will probably require

some graphics, text boxes, buttons, and other stuff. I'm not exactly sure what libraries we'll have to use to accomplish this, but that's why we're using python, because there are libraries for anything you could possibly want to do.

The roles each one of will play is still unclear but we will try to play to our strengths. I just did an assignment in another class on web scraping, so I will probably be the one to figure out how to get the information from the needed websites based on the user input. Shivani will in turn then be responsible for figuring out which libraries are needed to create an interface with buttons and text boxes where the user can enter text. We will probably end up helping each other with both of our tasks because we both have skills that are relevant to everything needed for this application.

I don't think it's wise to make a concrete timeline because there may be some tasks that take longer than expected, so not meeting a deadline is bound to happen and will only cause stress. Creating milestones would be a lot more reasonable for this project. A lot of milestones for this project, not in any particular order, are figuring out the possible websites we may have to connect to, figuring out what libraries are needed for web scraping and creating a user interface, figuring out what user input will be needed to get the needed information from the websites, and then actually creating the application itself. Creating the application can be broken down into a series of milestones as well, but not knowing what problems we might face doing that those milestones will probably change a bunch of times. Once we know the libraries and how to do everything, it should be very straight forward.