ChatBot Proposal

Josephine Boenawan
Gianca Devina
Paul Han
Theresia Susanto

The project proposal is worth 10% of the project grade. You should come to class with a document that describes the main idea of your project. We will have about 10 minutes to meet with each team, so we ask that you come to the meeting without your laptop, but with a printed version of your document. You should designate one of the **two team members** to take notes. In addition to the printed document, you should also have posted this proposal to your **project GitHub repository**. Your document should contain the seven sections listed below. We don't expect this proposal to be 20 pages long, but the more detail you provide here the better help and feedback when can provide your team (both during our face-to -face meeting and after the fact):

1.The Big Idea:

What is the main idea of your project?

- To create a chatbot on Facebook as a resource for users about ongoing events in their vicinity.

What topics will you explore and what will you generate?

- Events located near you or by location.
    - Different types of events (e.g. entertainment, food, pets, festival, music)
    - Venue, time
    - Number of hits (people going, interested, etc.)

What is your minimum viable product?

- A casual conversation with the chatbot and chatbot is able to reply the user. It will give out result of list of events, have user input a specific event and the chatbot will output more details (time, location, etc.)

What is a stretch goal?

- The chatbot will integrate machine learning. Learns what the users' interests and adjust the events offered accordingly
    - Customization for each user. (by name, by location, use the cookies to keep track of their previous events)
- The chatbot will suggest recommendation of events based on previous events.
    - The chatbot will be able to apply filter based on different events categories (eg: only concerts, no food-based events, etc)

2. Learning Goals: Since this is a team project, you may want to articulate both shared and individual learning goals.

Individual Goals:

- (J) To explore the extent of what Python can do. Have fun while learning.
- (G) Understand APIs, what they do, and how to use them appropriately
- (P) Learning how to effectively work in a team that has various levels of experience in programming.
- (T) To fully grasp Python capabilities and improve coding skills

TEAM GOAL:

- To communicate and work effectively as a team.
- To create a good team dynamic
- Successfully create a useful application
- Get a better understanding of python's depth

3. Implementation Plan: this will probably be pretty vague initially. Perhaps at this early juncture you will have identified a library or a framework that you think will be useful for your project. If you don't have any idea how you will implement your project, provide a rough plan for how you will determine this information.

1. Identify potential framework or library for our project. (e.g. Google Maps API for location, use the Facebook Messenger API to use Facebook Messenger Discover feature as the UI for the bot)
2. Narrow down list of websites we want to scrape from.
3. Scrape events from a website that posts about upcoming events.
4. Determine what functions we want the computer to do.
5. Make a list of independent tasks needed to complete the project.
6. Separate independent assignments/tasks to each person.
7. Integrate all components of the project - assure ability of components to work together.
8. Fix bugs or errors.
9. Re-test everything to ensure complete integration between components.
10. Ensure Heroku can host the app.
11. Testing of Chatbot as user.

4.Project schedule: You have 8 weeks (roughly - I know thanksgiving week is off) to finish the project. Sketch out a rough schedule for completing the project. Depending on your project, you may be able to do this in great specificity or you may only be able to give a broad outline. Additionally, longer projects come with increased uncertainty, and this schedule will likely need to be refined along the way.

Week 1 (Oct 9 - Oct 15):

- Project Proposal
- Figure out project scope

Week 2 (Oct 16 - Oct 22):

- List out potential functions and commands that we need
- Identify what tools we need (APIs, website to scrape from)

Week 3 (Oct 23 - Oct 29):

- Establish a working basic bot

Week 4 (Oct 30 - Nov 5):

- Continue writing additional functionalities

Week 5 (Nov 6 - Nov 12):

- Design Review
- Testing & Modifications

Week 6 (Nov 13 - Nov 19):

- Code Review
- Testing & Modifications

Week 7 (Nov 20 - Nov 26):

- Thanksgiving break

Week 8 (Nov 27 - Dec 4):

- Mid-project Presentation
- Create project website
- Host the app

Week 9 (Dec 4 - Dec 7):

- Create README document
- Demo Session

5. Collaboration plan: How do you plan to collaborate with your teammates on this project? Will you split tasks up, complete them independently, and then integrate? Will you pair program the entire thing? Make sure to articulate your plan for successfully working together as a team. This might also include information about any **software development methodologies** you plan to use (e.g. agile development). Make sure to make clear why you are choosing this particular organizational structure.

Complete them independently and integrate two weeks before final assembly of the project. This strategy will ensure that every team member have a component they are working on and share responsibility towards the project. It also helps to motivate each member through contribution of a skill or completion of task on the project.

The project will be broken up into milestones. For each milestone, tasks will be divided as evenly as possible between all members. When possible we will work independently; one person's task is not dependent on the completion of another person's task. In the case that one person has a dependency on another person, they will be responsible for meeting together and completing that portion of the project.

6. Risks: What do you view as the biggest risks to the success of this project?

- Segregating independent tasks within team members.
- Time management.
- Limited resources/skills.
- Defining a clear scope for the capabilities of the project.

7. Additional Course Content: What are some topics that we might cover in class that you think would be especially helpful for your project?

- Scraping a website
- File sharing tips/Team environment setup
- Working with APIs
- Hosting an application