Discovery Project Charter

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UNE Digital Academy

Development and Programming Fundamentals - May 2017

Project Client/Partners

The primary client for this project cycle will be my associate Bern Shanfield, who has a history of playing text-based games. With his experience and interest, he is a good candidate because there is potential for him to give valuable feedback in his evaluation. I want to make something that he would find enjoyable. As I develop it, I will show him test-versions to get some feedback.

Additional audiences include myself, because I want to develop a program that I would find to be fun. Friends and others who are close to me are a potential additional audience. The program could be shown to friends and anyone else who also have an appreciation in games.

Problem Definition and Analysis

Problem: Using the knowledge I've gained in the courses to produce a project that shows my comprehension of the material. There are times when I question whether or not I understand the subject material, especially to the point of where I ask myself I can use it outside of the course assignments. This problem is important to identify because being aware of my interests and capabilities will be crucial to my approach to working in the industry.

The cause of this problem is my desire to be confident in my personal growth, with the eventual effects being: *short-term*- how I develop as a student in the Digital Academy, and *long-term*- how I develop a career in the technology industry. I would say that this problem is a more concentrated and condensed version of trying to identify myself as an individual on the grand scale. My defined problem does not necessarily have measurable metrics, in my opinion. Obviously, the project that I develop to address my problem will be a tangible entity that tries to tackle the issue, but to the extent of it being measurable, it will be measured as "Does this project show comprehension of the material or not?"

The components and pathways involved in this problem definition are vast. Taking a path and using tools that interest me will be important for it will keep my focused. The audience who is impacted the most is myself, although the secondary audience could possibly be future UNE Digital Academy students if they look at my plan and project once this has all been completed. I will approach the problem on my own and through my own research. Sharing my problem definition and analysis will be primarily through the discussion board outlet and in person at UNE during Academy Live sessions with my fellow students and mentors.

Definition and Analysis: I want to develop a project that fulfills the following criteria:

- It is within my current technical abilities,
- It is within an area of personal interest,
- A project that can be used and experienced by anyone, and
- A project that I can potentially continue to work on after this course. Therefore, I believe that it will make me want to work more diligently on it for this period.

I will create a text story game that will be dependent on user input throughout its operation. It will be important to include as many topics covered in the Coursera courses as possible, which should include things like functions, loops, variables, user input, lists/dictionaries, random number generation. I might somehow incorporate SQL techniques, but I am not sure at this point since I have not completed the last Coursera course yet. However, it will most likely not include other topics like HTML/XML/JSON scraping.

It will also be important to figure out a way to share this project with anyone who does not know how to run a Python program. It will not serve much purpose if it is inaccessible to the average person. Mike Preble suggested I check out TkInter, which is the most commonly used GUI (Graphical User Interface) toolkit for Python. I will research this accordingly as I develop the project.

Project Plan and Prototype

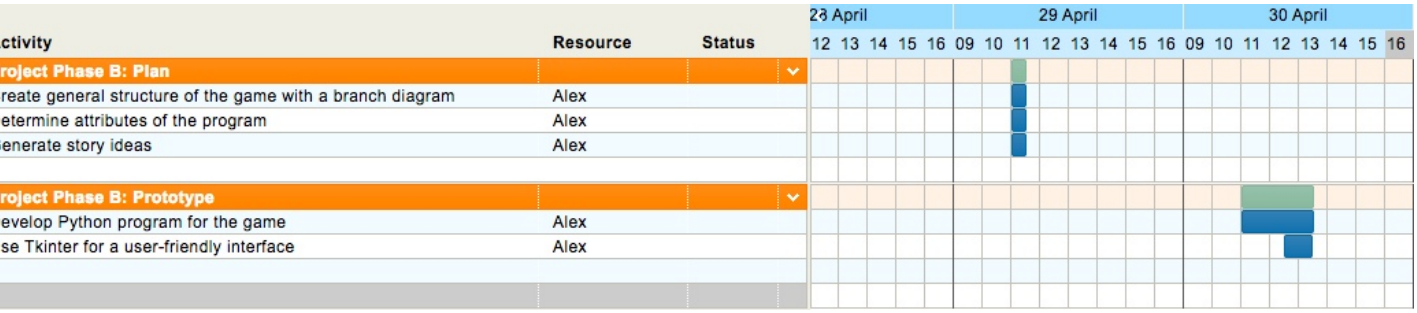
For the project plan and prototype phase, several things need to be done in order to set the direction on the process.

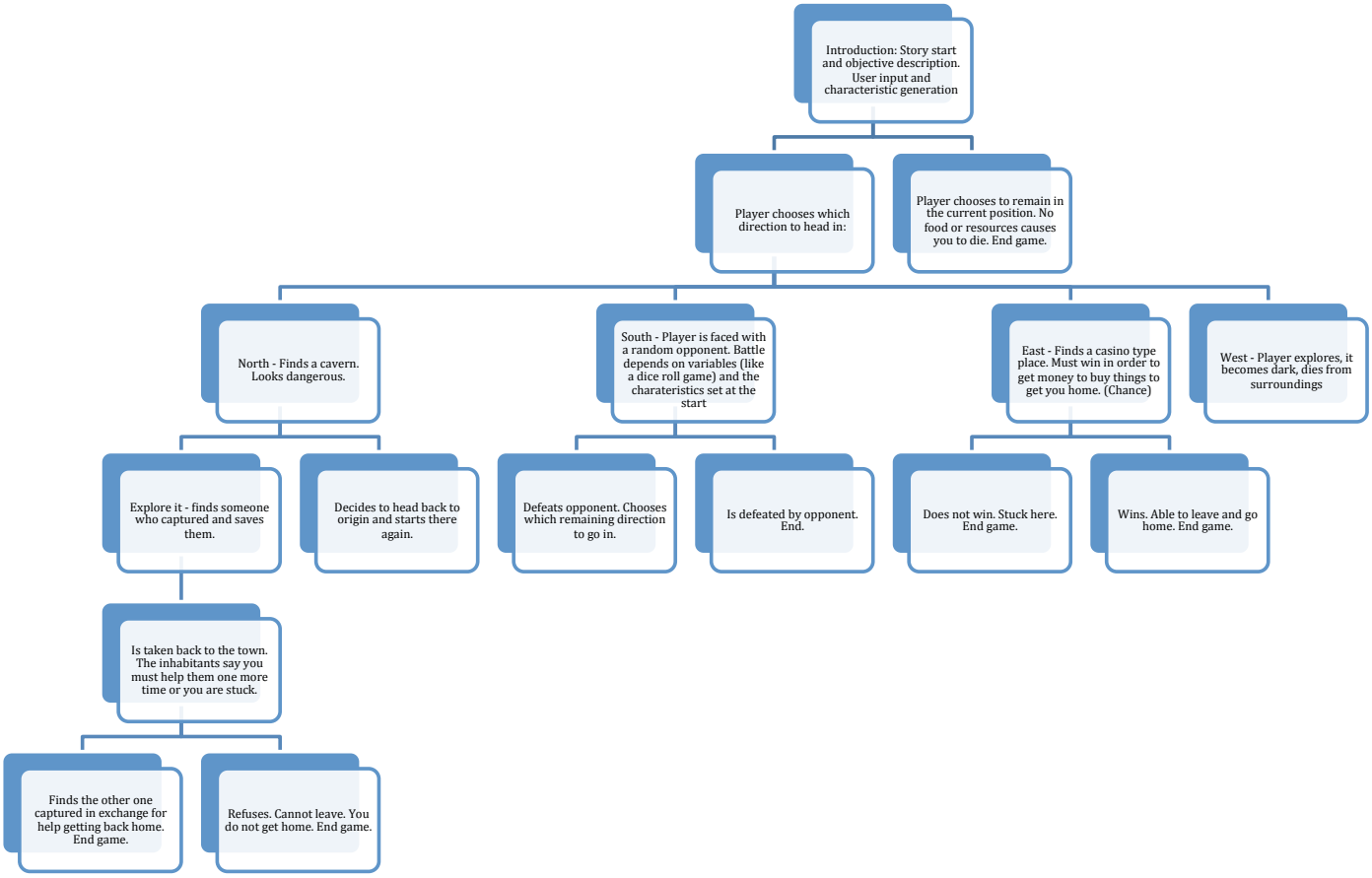
Plan: A general structure of the "game" needs to be created. I have set up an outline of this possible structure. The branch diagram shows basic summary points on how it may function. The developed program itself will tell the story in more detail. Moving from one summary point to the next in the game will be determined by user input or generated from the program, depending on the situation (is it choice or chance?). This "plan' phase will be about 30 minutes of the 3 hour period.

Prototype: I will develop the program itself using Python, writing it in application such as TextWrangler or Sublime Text. I will make it user friendly/accessible by incorporating the Tkinter GUI. My client will access and test my prototype once I develop it with Tkinter. Worst-case scenario for the test phase, I will show my client how to run the program in the terminal, but I don't think this will be necessary. This "prototype" phase will be about 2.5 hours of the 3 hour period.

I've attached a Tom's Planner screen shot of my intended time management for Project Phase B. I also included the branch diagram mentioned above for a visual of the plan. Thinking ahead, I will set up an editable Google Doc for my client and I to track/capture feedback on the prototype for Project Phase C.

Activity	Resource	Status
Project Phase B: Plan		
Create general structure of the game with a branch diagram	Alex	
Determine attributes of the program	Alex	
Generate story ideas	Alex	
Project Phase B: Prototype		
Develop Python program for the game	Alex	
Use Tkinter for a user-friendly interface	Alex	





Testing and Evaluation

Testing: The purpose of the testing phase is to get the opinions of a user other than myself, the developer. It is incredibly important because it allows the user to provide any other points of view that may differ from the developer. This allows for a more wholesome approach, and most likely, a better final product.

Notice to the client that the prototype was ready for testing was done by email. The prototype was sent as a zip file, and I have included that test file here in the discussion board post ("textgame5-8.zip"). The zip file contains the Python file as well as the JSON files that accompany it.

The client interacted with the prototype through the terminal, where they were able to input their commands for the game. They were instructed on how to operate and open within the terminal, as well as told how to open the game directly from TextWrangler or BBEdit. The client chose the latter. Luckily, the client is fairly proficient with general computer use and did not have trouble opening the program. This will need to be addressed if a future user does not know how to operate the Terminal or a text editor.

Feedback Evaluation: For evaluation, the client was supplied a short document where they were asked the following questions:

- What are your overall thoughts on the game?
- What aspects of the game did you like the most?
- What aspects of the game did you not find enjoyable?
- Did you come across any errors?
- What other sorts of features would you like to see that are not included already, if any?
- Please leave any other comments you would like.

The document with their responses can be found in this package. The feedback contained information that I believe can be broken into two parts.

- One - Immediate fixes. The most important immediate fix that needs to be addressed in the prototype is the fact that the game gives a trace back at the last scene. Therefore, it cannot be completed as is, which is obviously not good. There were also grammatical errors that were spotted. Another quick suggestion was to adjust a command input from 'interact' to just 'i' for simplicity on the user's end.

- Two - Long-term fixes. The long term fixes are not suitable in the time frame left for the project, and would most likely involve skills that I have not learned yet, such as including images and sound. These updates would involve using a GUI for incorporation. Additionally, feedback requested that the game be longer. Again, this is not suitable in the time frame left for the project.

All of the feedback was valuable, appreciated, and has been taken into account when thinking about making adjustments to the prototype. I've learned that for a more enjoyable product, it needs to have more 'bells-and-whistles' for the user, and of course, have an ending that is achievable without crashing. But, at the very least, I was able to deliver a prototype that could be used and experienced by someone else. In addition to addressing the immediate fixes, I also need to adjust the JSON read program to read from a path because it is inconvenient to have all the JSON files in the same file as the python file.

Revision and Evolution

Revision: During the revision phase of the project, the following immediate fixes were implemented:

- The last scene of the game was fixed. The associated JSON file had a typo, thus the Python program could not decipher it when told to pull the information.
- The grammar errors pointed out by the client were fixed, as well as reducing the 'interact' command to only 'i'.
- The program was adjusted to read the JSON files from a path since the previous version. The scenes are now located in their own separate folder.

Evolution: Based on the feedback received from the client, the following are additions that could eventually be made to the project:

- Incorporate a GUI to enhance user experience.
- Incorporate images and sounds into the game. This would make the game more enjoyable by making the user feel more engaged.
- Further develop the story of the game. The game can currently be completed in a short amount of time.

These were identified in the previous entry as long-term fixes. They are revisions that the project would benefit from, but will not be implemented due to the lack of time left in the course. As such, these changes would require more research and have the potential to keep a developer occupied for quite some additional time. It would also be a good idea to figure out a way to run a Python program in an Internet browser. That way, if someone wanted to play it, they could just run it via a web address.

In reflection, the development of the project included many revisits and was improved upon repeatedly, which is one of the most important concepts taken away from this. The Project Plan development time frames were severely underestimated. The project could have been completed in the intended time frame of roughly 3 hours a week if I was already proficient in Python. Time was spent researching topics like additional modules and features of Python, text games in general, and GUIs. Therefore, the supplemental self-learn phase added additional time to the overall project.

In questioning whether or not the problem that was identified at the start of this project could be altered to better focus on a particular outcome, it is my conclusion that this specific project was a reasonable way to address the defined problem. The project demonstrated my competence, self-motivation, and desire to be challenged. If I were to continue working on this project tomorrow, any future improvements would demonstrate and build on those qualities.

Python Game Questionnaire
Developer: Alex Dulac
Client: Bern
5/8/17

1. What are your overall thoughts on the game?

Enjoyed playing. The setting of exploring a new world always gets me immediately involved. Getting a quest/purpose intensifies the involvement.

The nav marker at the top of the screen was very helpful.

Typing out “interact” seemed a bit cumbersome after single character moves. Maybe “i” for interact? Also would be nice to have the option to use the arrow keys for n, s, e, w.

Game was small (I know this was a learning exercise and not real game development). I imagine new elements could be added as you learn more like a map at the top is gradually revealed as you explore; carry and use more than one item; multiple ways to use items, etc.

2. What aspects of the game did you like the most?

The setting.
Exploring the landscape as I moved to different areas.
The writing was simple yet effective.
Nice cave ambush

3. What aspects of the game did you not find enjoyable?

Having to type “interact” (I just dislike typing).
Not having more to explore. It doesn’t take much to get me going.

4. What other sorts of features would you like to see that are not included already, if any?

See #1 and incorporating images and sounds.

5. Did you come across any errors?

opening page:
"...head back home" used in two sentences in a row. Begs for some variety.

On 2nd “w” screen after returning to the ship from the village:
"You think it is best to more forward in hopes…” Change “more" to "keep moving”

"You had the key to the leader.” Change “had" to “hand"
--
Opened file with BBEdit and used run in Terminal to get it opened in Terminal. Got back to cave with sword and shield and the program crashed when I evoked the interact command to slay the creature while he was a few feet in front of me and hadn’t yet noticed me.

Tried again using n instead of interact, then tried all other directions and then interact which crashed it.

6. Please leave any other comments you would like.

Wonder how much of a market there is for text game development.