Name: Felicia Tan

1. The project I want to work on is a virtual pet project.

2. I want to work on this project because I love animals, and old virtual pet toys. I remember virtual pets were very popular, especially for children who were unable to get a pet of their own. The realness of pet keeping through software without any of the real obligations or consequences of having a real live animal was something technology made possible. I also believe this project will allow me to test and learn new skills in a real-world application, especially as these can be as “simple” or complex as one would allow. Interesting new functions are easily implemented, and much of these programs are very relevant to things I’ve learned before.

3. To successfully complete the project, I will need to **improve my Java skills** in these areas:

I am not very comfortable with the implementation of the Java Swing interface. I also have a hard time linking many data sets together which will be very important for my project as the pet will have multiple statuses and possible outcomes when the buttons are pushed. Therefore, behind the scenes there must be an algorithm (MVC) that will connect these inputs in order to display the correct data. It will be imperative to choose the correct data structure, or the program can get very messy, complicated, and perhaps impossible. From this I believe that I must improve my understanding on these data structures (which in previous projects were pre-chosen for me to write, or heavily hinted) in order to make the right choice.

4. I will need to **learn new Java skills** in these areas:

I believe my project mostly involved honing my skills I have already learned- but if there were anything, I might need to learn how to merge data in order to perfect my project. This will allow more function (as such as different kinds of foods to be fed), but it is not entirely necessary.

5. I will have the following challenges to overcome in implementing my project using the MVC design pattern:

As noted before, my project involves many moving parts that must work behind the scenes to display correctly when the user selects an option. This will be a challenge to find the correct algorithm for the application that will tie all three parts together to make the app work as intended. Another problem is separating the three parts of the code. I can see where the model and the controller can easily get tied up together if not split up correctly because the model (the brain work) and the controller (the liaison) both are behind the scenes. Especially with my project, the model and controller must work closely in order to determine the correct sequence of actions that should take place (because every action may trigger a different response; for example, when the user presses the “play” button, the hunger may go down while the trait connected to the play action increases).

6. Explain whether and why you will use Swing or Fx to complete your project. How familiar are you with Swing and Fx? (Realize that if you use a GUI editor (e.g., the one in NetBeans for Swing or SceneBuilder for Fx) that you are own your own as far as help goes.)

I will be using the Swing interface in order to make a clean display for the user. It will allow the users to clearly see their options as well as the impact of their actions on their virtual pet. I have learned Swing in previous classes, however it was at a very basic level. I do not believe I will need anything much more complicated for my project, but I will still need to research Swing to get a better idea on the best way to implement it in my project.

7. Why should I believe that you can complete the project you propose on time, with working code that demonstrates the features you will promise for each deliverable?

My project has all the required traits, yet it is very easy to modify to make the project more simple or difficult depending on the function I would like to implement. In this case, if I have more time, I can spend more time perfecting my functions; but if not, I am still able to put together a decent basic program that still fulfills all the requirements of the project