**Software Engineering Challenge**

**Requirements**

Describe the challenge or problem, what does the program need to do **– makes or replicates a city with 4 buildings**

What classes/objects do you think you need? – **building, window, & sun**

How much time do you think you will you need to complete the project? **– about a week and a half**

**Research**

What knowledge or skills will you need to build this program **– I need to know the basic drawing functions and I need to know how applets work**

What examples are online or in other graphical programs (games, apps etc. . .)

If so, what can you learn from them?

* **There’s a bunch of games that use backgrounds and buildings, and I can learn what to incorporate into my program by looking at them**

Do you foresee any problems or constraints, describe

* **There’s definitely a time constraint. I don’t know how much time I will have nor how much time each class will take. This could be a time management problem**

Have you created a similar programs or applets? Are there similar programs in the book or other resources?

If so, what elements of that project can you bring to this project?

* **I haven’t created anything before**

Do you have the resources you need to create the program?

* ­**I do have java**

Do you need to learn any new knowledge or skill(s) to create the program?

* **I will need to know how to work with applets**

**Design**

Draw/create a basic graphic of the applet you plan to build - attach the drawing

(paint, word, photo shop) not every objet (draw one example although there may be several in the final program) needs to be in the basic graphic

* **Design on paper**

Include a task list--what will you need to do and in what order

**Build Sky**

**Build Grass**

**Build Buildings**

**Build Car**

**Build Trees**

**And maybe windows?**

Estimate the amount of time you will need to complete the project

* **8 days**

**Construction – included in summary doc**

Document your construction progress with date and progress made (build a chart/table in word or excel), also, include at least three screen shots of your applet (beginning, middle, and end)

* **CHART AT BOTTOM OF PAGE SORT OF**

**Testing/Results/Delivery—summary doc not required to start project**

Preliminary testing

Does your program meet the needs of the initial challenge or problem? How do you know?

* **It does fulfill the needs of the initial challenge of making a city with at least a minimum of 4 buildings, which is a part of my applet. And, I made different classes for each object to accomplish this.**

Are any changes or modifications needed, why or why not? Document any changes.

* **I think I could’ve maybe made a couple of stars, but time didn’t permit that. And I could’ve also made the snow on the ground in the night, increasing as time went on.**

Summarize the project - what worked, what didn’t work, note your successes and/or failures.

* **This was a struggle. A lot of stuff didn’t work at first. It took a lot of time to get it all together. Something that didn’t work very well is the snow flakes at the end. I didn’t know how to make a diamond, so I made ovals instead. But, something that did work is my flashing windows. Those windows are definitely a success, but a failure would be the time management done on this. But overall, I had a great time with this program. I definitely learnt a lot. And at the end of the day, I am proud of my program considering that on the first day, all I could get working was a blue screen. So, a success would be the windows flashing and the sun moving because those took the most time and I got around to making those work. A failure, however, would be the background at the end of the applet (after the moon). I somehow couldn’t figure out how to change the background to make it into a night time, but this is a small failure – one that is overridden by the successes of the program. And if I had more time, I would make the ‘snow’ at the end increasing as the time went on. But other than that, I’m proud of the result.**

Looking back, would you have done anything differently, why or why not

* **I would definitely have spaced the amount of work that I put into the program better, because I ended up doing a lot on the last two days. Also, I would’ve add another animation for the moon if I had more time.**

Software Summary Document

Daily Progress Report

|  |  |
| --- | --- |
| Date | Description |
| February 26, 2018 | Today, I managed to get a blue screen and size the applet to a certain size. Tomorrow, hopefully, I will be able to accomplish more by getting 4 buildings done. |
| February 27, 2018 | Today, I managed to get 4 buildings down and each has windows. Tomorrow, I will hopefully be able to get the windows flashing by doing a loop. |
| February 28, 2018  February 29, 2018  February 30, 2018 | Today, I managed to get the windows flashing. And tomorrow, I plan on getting a sun and maybe making it move.    Today, I managed to get a sun and making it move across the applet horizontally. Tomorrow, I will work on getting a moon and snowflakes at the end.  ../../../../../Screen%20Shot%202018-03-04%20at%2009.17.37%20PM.png  Today, I managed to get a moon after the sun has reached the end, and some snowflakes.  ../../../../../Screen%20Shot%202018-03-04%20at%2009.18.01%20PM.png |