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Project 2 Writeup

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Software Development 1

I heavily changed my game from my initial concept. I wanted to do a survival, figure-out-your-way-around game, but decided instead to make an educational text-based game about how bills become laws in the American Government.

I decided to do this game due to my previous knowledge and study of the American Government, with working on multiple campaigns in the past, taking AP US Government and Politics in high school, attending the past inauguration, and my pathway of Legal Studies. With the political turmoil with the recent election, I feel that teaching people about how bills become laws is actually very important as not everything is the President's fault, and not everything is on Congress. Passing laws is a very slow process, and this game really is just scratching the surface, but even just a little introduction is better than no idea at all.

Before even starting the game, I had to wrestle with how in depth I wanted to get with the game. What most people don't recognize or realize is that bills are NOT easy to pass. It doesn't just get formulated and the president signs off- there are just about 1,000 hoops to jump through. The bill originates usually from a committee, that then has to get approval from the committee that handles floor time to even be heard by the rest of the floor, being House or Senate. If, and that's only if, the bill gets voted on and it passes, then

a similar bill is drafted all over again in the other house of Congress, which then has to pass them. And, if it does pass, then a special joint committee must be called to take both bills passed in each house and re-draft them as a single bill, and pass AGAIN in both houses of Congress. It then gets sent to the president for signing, but the President can veto it, which then each house can vote, again, to override the veto to become a law. The point is passing bills is very hard and I had to figure out what I wanted to do, so I decided to just focus on the concept that it isn't just one person that signs and creates these bills, so by starting in one house, voting on it, and having it sent to the other house, and then to the president shows that it's a lot more of a process than one person thinks up a bill and makes it into a law.

The game is a very basic, text adventure game. It starts with asking for your name, and then responding with "Welcome [Y/N]!" The game then asks for if you would like to be "elected" into the House, and I provided an option with "What are the differences," as I'm sure many people are not 100% certain of the differences between the two.

Due to a mix of time constraints and purely me being unsure how everything would interact, I only allowed for the player to start in the House, when, in reality, bills can also start in the Senate.

The game then offers you your first constituent's request of a bill: To ban grass. This is an example of narrowing down bills that actually matter and will probably pass, as you need the rest of your members to vote yea or nay to the bill to actually become a law.

If you select “no,” (like you should,) the game then goes into gun laws, on if they should be increased or decreased, and lets you pick one of two options for each to propose, as I want the player to actually feel as if they are making these laws and the game to feel as personal as possible.

Once the player selected to increase or decrease, the game offers two options for each, a very strict option and a looser option, just hoping that the player would agree with one or the other. With the response, the bill moves onto the floor.

At this point, due to only my knowledge of how to program, it’s completely randomized. You can enter in any response to try and “impress your fellow representatives,” But this doesn’t impact them at all. In fact, the ending of this game is completely random. I have a randomizer that determines if you win or lose, determined by “how many votes your bill got.” This makes the game difficult to win, as it’s completely out of your hands, but at the same time, this reflects real policy making. Representatives could fight for a bill to pass all they want, but without the rest of the votes from their coworkers, the bill could very easily be killed. You could work your entire life on this one piece of paper, but your fellow representatives is what really is the deciding factor if something will pass.

To interact with the game, the users are given a few pre-set responses, as the game can only move on with correct responses, as I coded it to check for only responses that are spelled and spaced correctly. I have given some leeway to these strict spellings, after consulting with some friends on how to tackle this problem. The user enters their response

in, and depending on the response, most of the time it will call another class, as I broke up the code into classes for simplification to correct errors and such, and visual clarity.

The biggest problem and flaw of the game, in my opinion, is the strictness of how it's checking for the responses. Like stated before, I tried to give leeway, but sometimes you just get really dumb people who want to mess around and end up ending the program. The first thing I did was simply asking for a string input from the user and then a switch statement, but the switch statement wasn't working, no matter what I tried, it kept ending the program.

I asked on StackOverflow about this issue, and someone suggested putting in a "default" statement, with the variable in it. After learning what this default statement does, I put one in, and sure enough, the string I put in to print with the default statement printed out with the variable. I found my issue lied with the variable only taking the first word of the string, instead of all of them.

I was then suggested to try `input.nextLine()`, which then fixed the issue. I was happy about that, but the next (and very big) issue I encountered was if anything was misspelled, it would be rejected by the program and end it.

The first solution I tried was adding a `.toLowerCase()` before it checked for what the string contained. This helped some with capitalization mishaps, but still didn't correct anything if the spelling was off. I'm sure I wasn't the first person to encounter this, so I looked it up, and many people suggested adding a while loop with a boolean. The issue is that all of the solutions they offered were all broken and didn't work like they should,

either printing nothing or becoming an endless loop of text that one time broke my computer and I had to restart the entire computer.

A lot of my friends are upperclassman computer science majors so I consulted with them over text on how to fix the problem, and the first thing they all suggested was “while loop” with their various solutions (which, of course, didn’t work). So they suggested instead of a switch going back to an if/else if/else statement, and in the else to enter the program again given that the input didn’t match the variables the first time around. I implemented this, but I was having an issue where an “or” statement wasn’t working, so I had to break them up into if and else if, and my friend taught me the wonders of `.equals()` instead of `==`. And I then found out you could do `.equals().toLowerCase()` which, I definitely thought wouldn’t work but works just fine. So now, for most of my input options, you can now mess up once and it’ll give you a second chance, but don’t mess up the second time.

Another of my friends suggested a try/catch statement, but there was nothing to catch, so that wasn’t an option in this situation.

Website such as iCivics has also addressed teaching the process of a bill becoming a law, but after playing some of them for my Games & Learning class, they either seem to not cover enough or seem to focus on the fun aspect too much to actually teach anything, and the game tends not to be that fun, anyway. I’m hoping I can make the game fun, although admittedly it is very difficult to make American politics sound “fun.”

The way this game should be played and used is simply through keyboard input.

Entering in a response, according to the parentheses, will move the game forward. It is important to type in exactly as the parentheses says, as indicated above, as otherwise that may cause the game to break and have to start all over again, so just take your time when playing the game.