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Lab 2 report

For this lab we were asked to design the dialogue for a simple app based on the flowcharts and materials provided. While implementing it was successful, the design had its obvious limitations, some of which I tried to overcome, and errors, some of which I also tried to fix. In this report I will describe what difficulties (aside from the ones associated with learning a new programming language) I ran into, and how I attempted to solve them, as well as what still needs some kind of a solution.
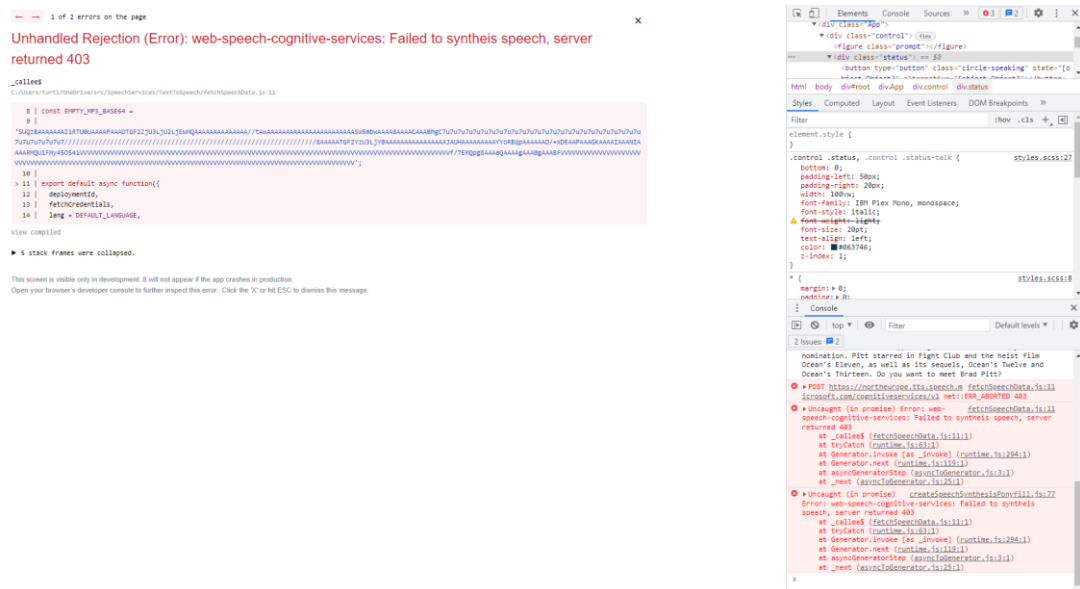
Firstly, the flowchart for part 2 only accepts a "yes" transition from [do you want to meet them] to [on which day is it]. Obviously, after hearing who that person is, the user may not be so excited to meet them, so there has to be a path leading back. I chose to make it lead back to the question whether the user wants to make an appointment or ask about someone, because perhaps they do not want to meet any celebrities after having been disappointed like this.

The same flowchart suggested that the user should be welcomed by name, so I took the opportunity to make the app ask for that in the beginning. I believe that in an actual conversation we use the name of our interlocutor more than we would think, and it can help us grab their attention. This is why I not only used it in the opening part, but I decided to start the question that confirms all the meeting details with that too. I think it captures a decent balance between overusing the name and utilizing it to capture the user's attention.

I ran into a lot of problems with the way that people tell time not being recognized. This is because the speech recognition software is not consistent with it (sometimes putting the full stop and sometimes not, sometimes spelling the number out and sometimes not, etc.). I manually created a very long list with all the options that I ran into, but I assume this could somehow have been shortened for example with regular expressions; however, I did not want to experiment too much here not to break it. I also found it tricky to predict what the user can say and some of the options ("at noon," for example) were introduced because my boyfriend, who I tested it on a bit, provided answers I had not accounted for. While designing an actual app I presume more testing could be done, with multiple users, to see how they respond – or some research could be done beforehand in case corpora of such conversations exist.

When it comes to having input that does not get verified against some grammar, we run into problems when the input is hard to parse or gibberish, as it will still get used. When testing, I tried to say something along the lines of "blaaarghblargh" when asked about what celebrity I want to meet, and it was parsed as "A bug." This did not throw any error while looking up the information about it (where the onError event would have come into play), but there was no information to read out, so the app simply continued by asking if I wanted to meet a bug. Ironically, it seems that I just met it precisely then, but I also could not come up with a solution for it, and I can only hope that the users will speak clearly.

Finally, when asking about some celebrities, whose names got properly parsed and properly looked up, it would seem, there was an error with the speech synthesis service, that I believe is beyond my capability to fix. This error occurred every time I asked about Brad Pitt or James May (and I asked about them a few times to see if it was a one-time fluke or not). The majority of the celebrities I asked about (Angelina Jolie, Patrick Stewart, Albert Einstein, Nikola Tesla, Aristotle, Tilda Swinton) did not cause any issues whatsoever. The screenshot of the error can be found below.

Finally, of course the app has limitations related to what it actually does. It does not hold any record of what we book, and we could keep interacting with it and booking things for the same time over any over again, and we cannot ask it what we have already booked (but that would make it much more complicated). We also cannot set the length of the meeting, which would be necessary if it actually booked things. These things are naturally beyond the scope of this assignment (perhaps with the exception of setting the length), but I believe it is worth to keep in mind what this dialogue could actually be a part of.