Addendum

Portfolio 3 - Codable Media Mashup

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- ❏ Demo Instructions (detailed in the README)
    - ❏ Requires bash terminal on Unix system (Mac/Linux)
    - ❏ Install dependencies:
        - ❏ Java SDK
        - ❏ youtube-dl
        - ❏ ffmpeg
        - ❏ moreutils
    - ❏ Clone it
      ```
      git clone https://github.com/KrashLeviathan/codable_media_mashup.git
      ```
    - ❏ Build it
      ```
      tools/build.sh
      ```
    - ❏ Run it
      ```
      java -jar Comm.jar <input_file.comm>
      ```
    - ❏ Demo input files
        - ❏ Run: **examples/simple_example.comm**
          This file shows how the program is supposed to work. The comments in the file explain what's going on, and all the grammar is functional.
            - ❏ After running, look over the bash script and log files created in the cache folder.
        - ❏ Look over: **examples/syntax_tests.comm**
          This file shows all the different syntax that the grammar defines, though not all of the syntax was implemented. We chose to focus on a stable program with a few core features instead an unstable program with lots of features.
        - ❏ Run: **examples/error_handling.comm**
          This file, when run, shows how CoMM handles various errors in syntax, undefined variables, etc.

- ❏ ANTLR grammar (src/main/java/comm_grammar/comm_grammar.g4)
    - ❏ You can take a quick look at this to see the grammar, but it's nothing too exciting.

- ❏ CoMM interpreter
  - ❏ src/main/java/interpreter/Comm.java
    - ❏ Lines 40-47 : Once the parse tree walker and CodeGenerator are finished, we print errors (if there are any) or save and run the script.
    - ❏ Lines 65-73 : Here is where the bash script is run using Java, and the logs are created.
  - ❏ src/main/java/interpreter/CodeGenerator.java
    - ❏ Line 81 : This function creates all the file management commands for the current CoMM
    - ❏ Line 102 : This function creates the youtube-dl commands to download the videos for the current CoMM. We keep track of all the URL's requested for the given CoMM so they only get requested once (see line 107)
    - ❏ Line 132 : Variables defined by the user are kept in a map and fetched with this function. Undefined variables report an error to the user.
    - ❏ Line 163 : When this function gets called, the various buffers that have stored bash commands for the current CoMM definition are dumped to the results buffer. The results buffer is what gets requested when the parse tree walker and CodeGenerator are finished going through the comm file.
    - ❏ Line 202 : Everything below this line is an overwritten method from the java code generated by ANTLR from the grammar file. Read the comment for a more in-depth explanation.
    - ❏ Line 217 : This gets called when the parse tree walker is exiting a CoMM definition. The "join videos" bash commands are written to the buffer, and then the cleanup function is called to write all the buffers for the current comm to the results buffer.
    - ❏ Line 259 and 288 : These functions are what create video slices from the source videos. The slices will feed sequentially into the resulting video.
    - ❏ Line 349 : Variable assignment.
    - ❏ Line 372 : Sets the filename and cache.