Compiler Project ReadMe

This application allows you to compile source code into BASIC syntax, with live editing, internal process viewing, and phase summaries. It was built using Python and packaged into an executable for ease of use.

How to Run:

1. **Download** the zip file (`main.zip`) from the submission link and extract it to any folder which should result in a file called `main.exe`.

2. **Double-click** on the `main.exe` file to open the GUI.

3. **Use the Browse button** to select a text file, or edit the content directly in the input text area as input in RecSPL.

4. **Click Compile** to process the input file or text and view the output in the summary section.

5. Optionally, you can view detailed internal process logs by clicking the "See Internal Processing" button.

6. Please note that after clicking “Compile”, the application might momentarily lag and the window might say the application is not responding, but this should disappear within a few seconds depending on the host machine.

System Requirements:

- **Operating System**: Windows 10 or later.

- **No additional software is required**, as the application is packaged as a standalone executable. You do not need Python or any other libraries installed.

Common Issues:

- If your anti-virus flags the executable, you may need to temporarily allow it through the firewall.

- If the application doesn't open, try running it as an administrator by right-clicking the executable and selecting **Run as Administrator**.

Known Limitations of the Compiler Software:

- Binary operations such as ‘grt’ are not correctly translated into BASIC syntax.

- Type Checking for Built-in Binary Operations is overly lenient (will allow num and text arguments when it should just allow num.)