Project 4 – TIS-100 Game

Design Document for Project 4

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This design diagram will contain both an explanation and pictures of how the program is running.

1. The program gets input values, input co-ordinates, and output co-ordinates from the Interpreter.

2. Inside the Intrepreter, using a single line from cmd, Tokenizer, and parser should be called to run the program.

3. Tokenizer is a grammar checker for instructions in the silo. This class checks and assigns the proper tokenType (First Instruction like MOVE, SAVE, etc) and tokenValue to that token.

3. Parser parses the whole line of instructions at a time. Parser has switches cases which gives proper source and destination values for different instructions and sends them to Instruction.java class for them to run.

4. Instruction.java class handles the actual actions that each instruction needs to take.

5. Port class represents the four ports of each silo. The port is then called Silo class for each silo to have their own port.

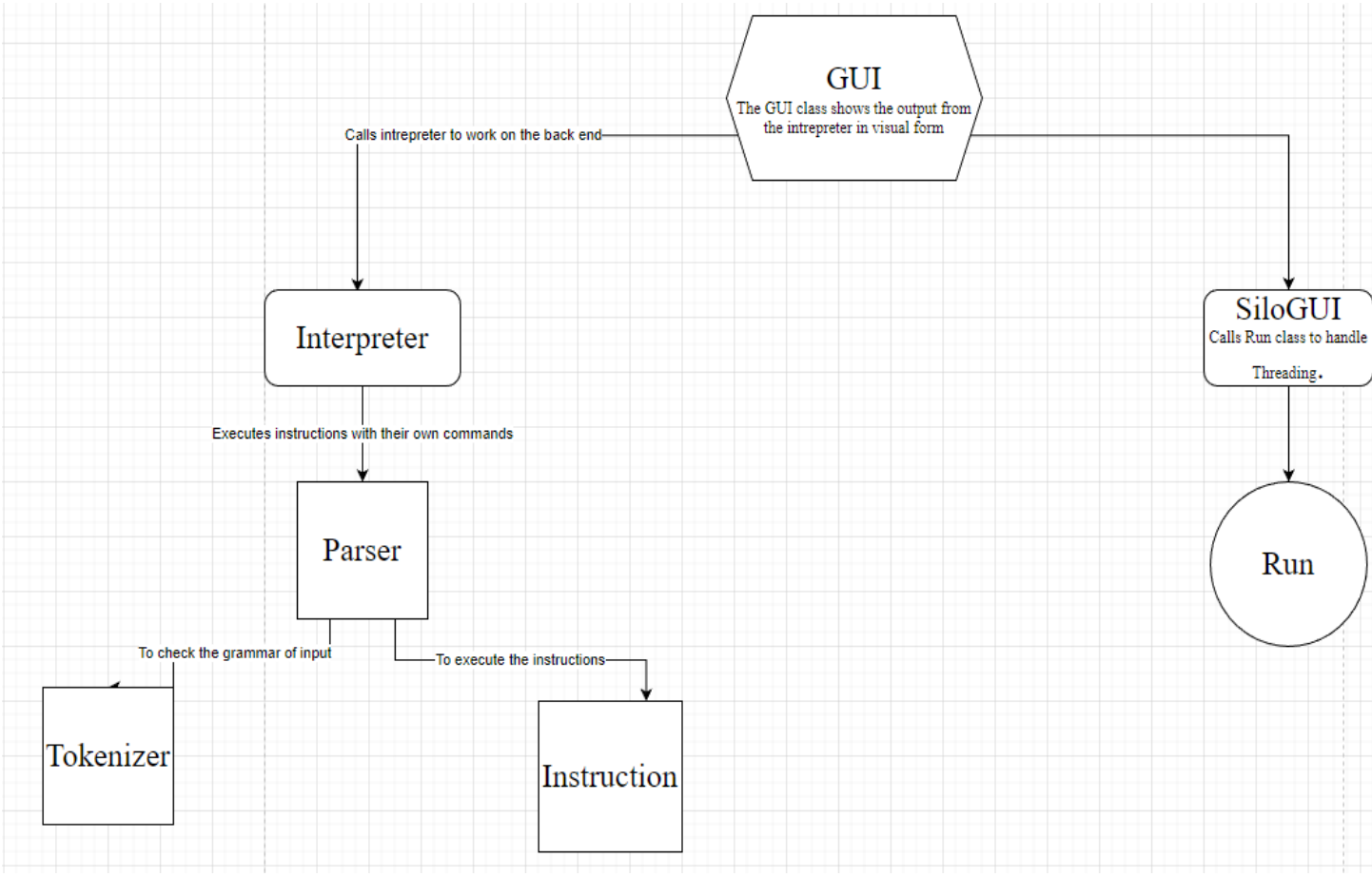
5. Silo class represents each silo in the GUI. This class is represented using the arrayOfSilos in Interpreter which holds all the silos, and every silo has their own Instructions, acc, and bak field.

6. There is SiloGUI class to represent each silo in the GUI. This class basically makes every silo in the grid along with their acc, bak arrows, and the text area.

7. All the GUI are put together in GUI class. Using a thread defined in Run class, the GUI updates every 1 second.

Design Diagram for Project 4: TIS-100

The pictures for all the classes are attached as follows:



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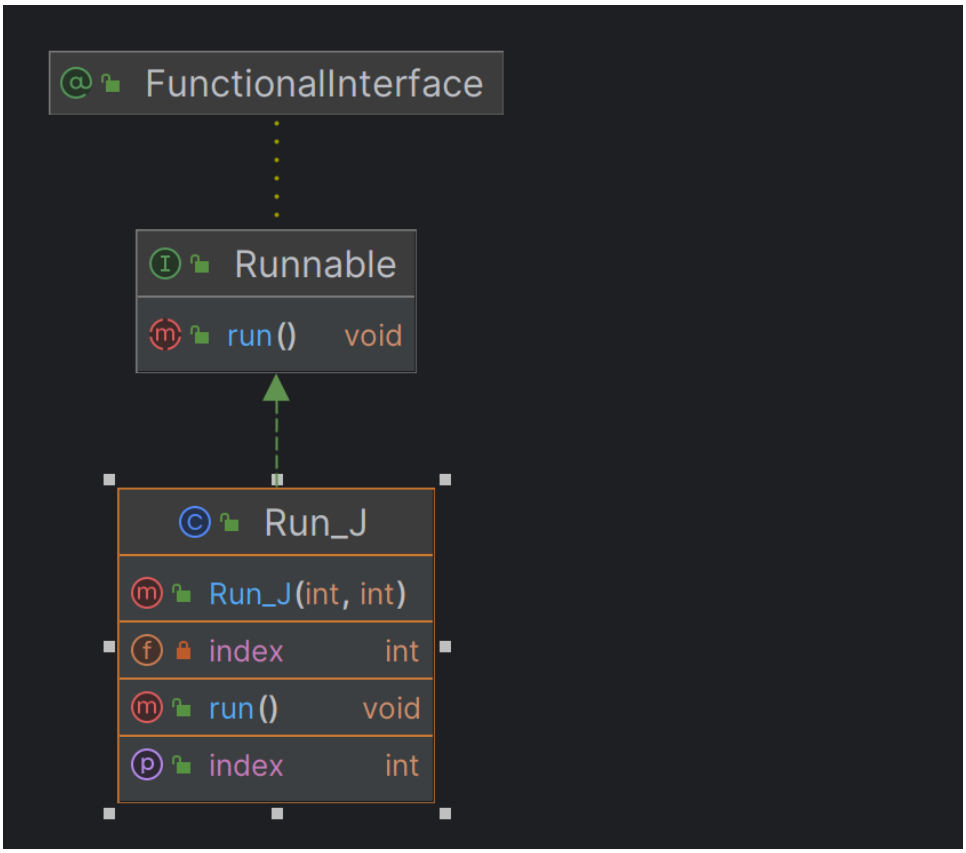

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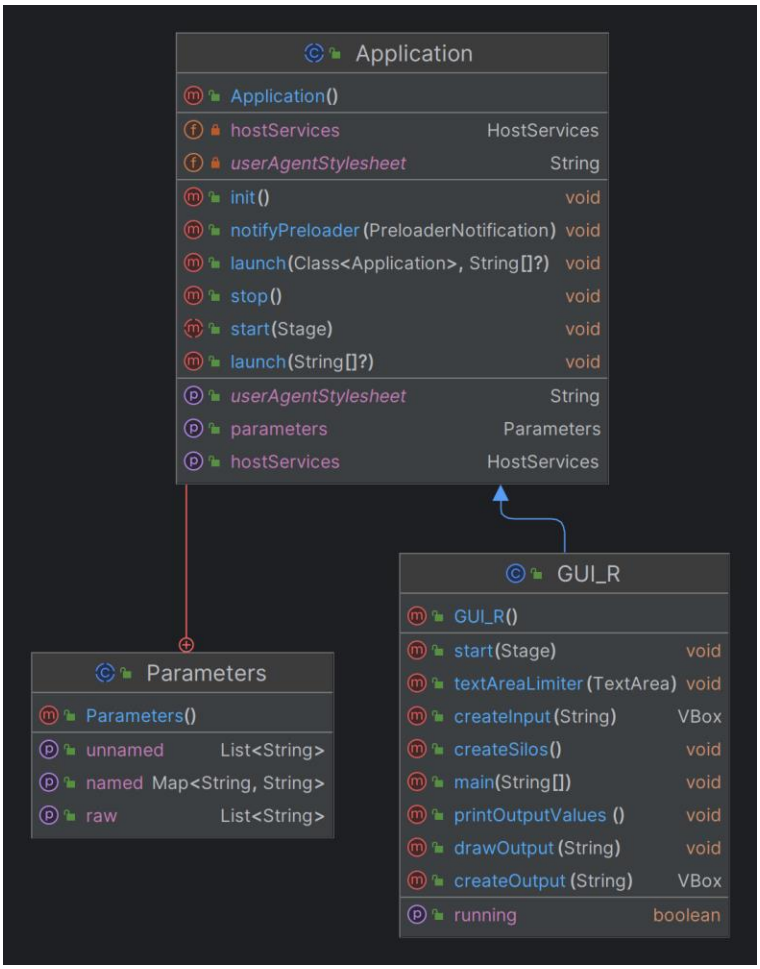

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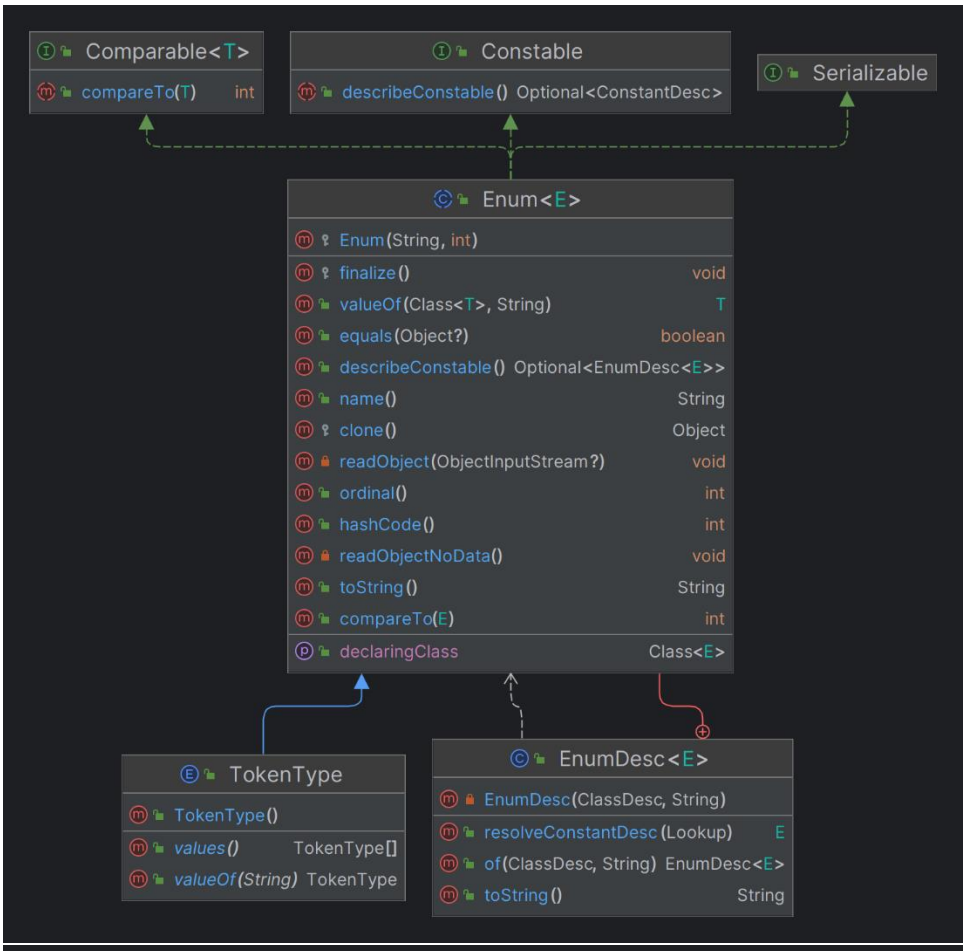

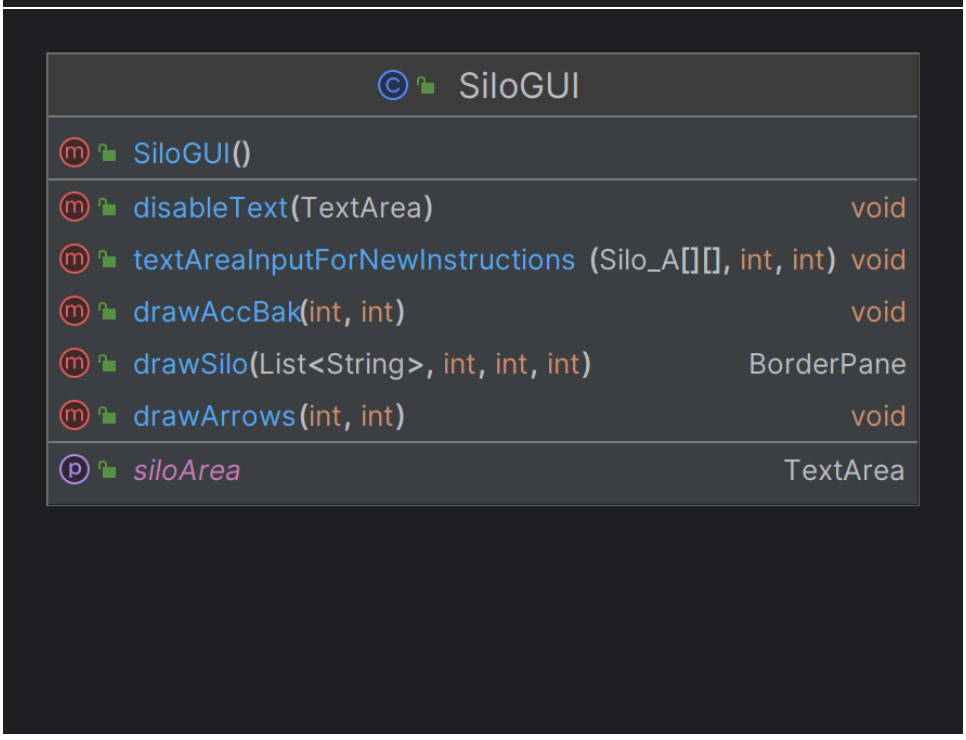

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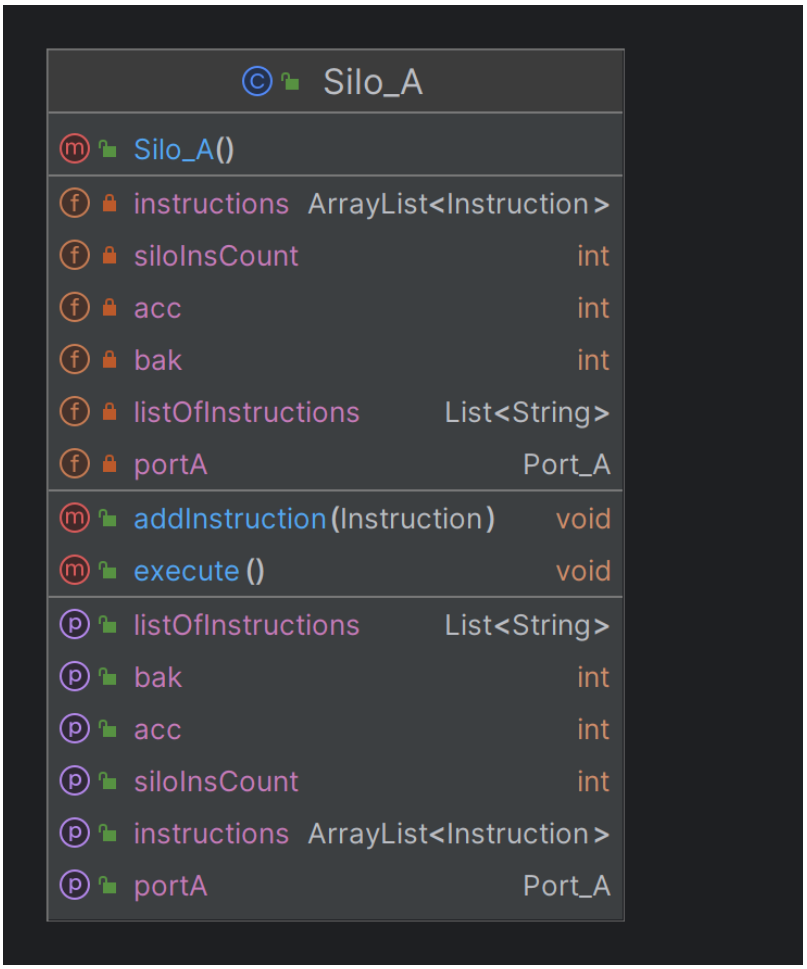

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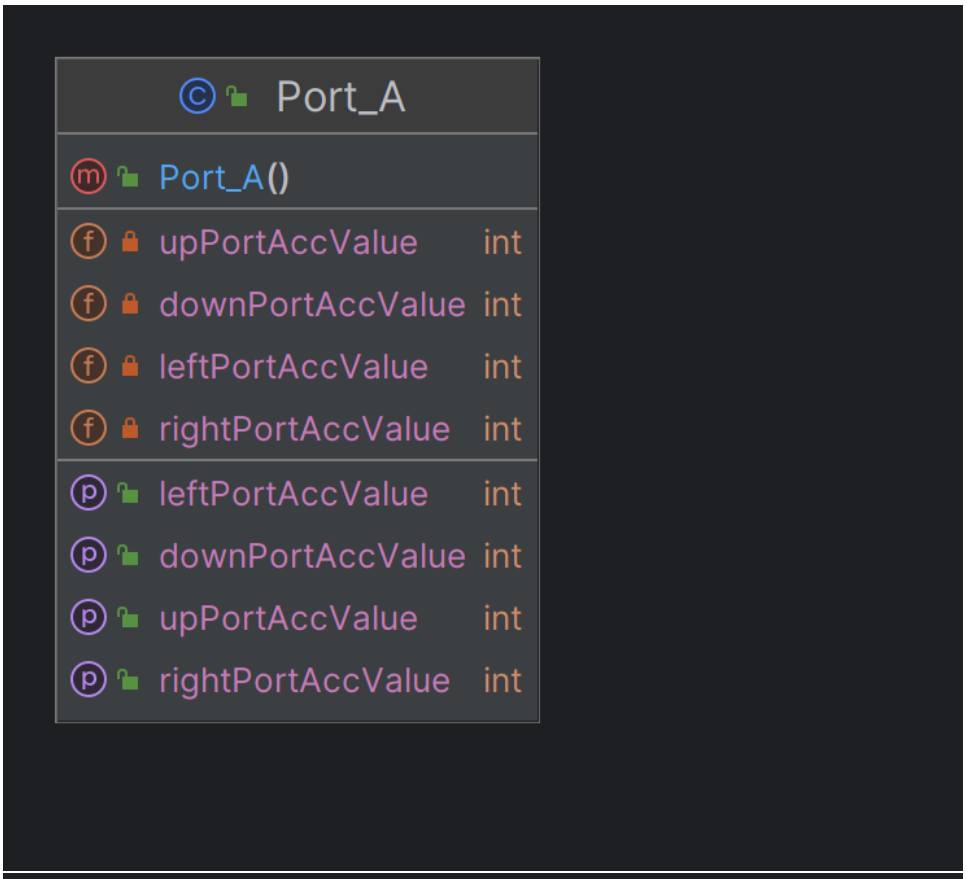

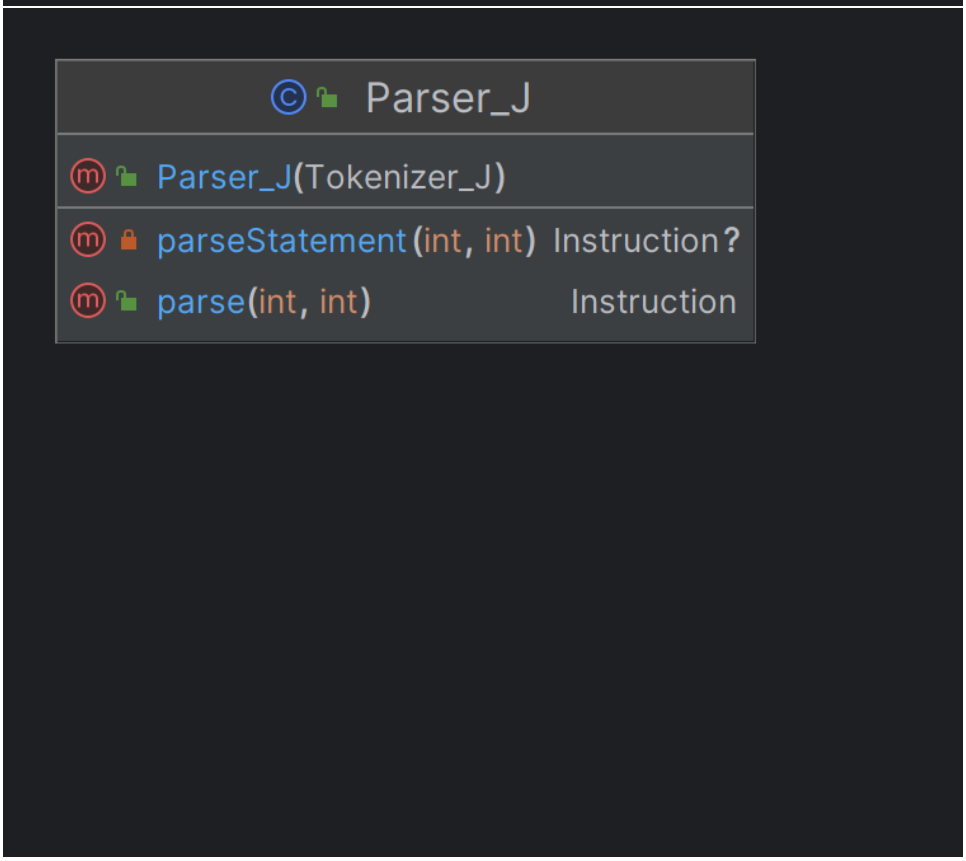

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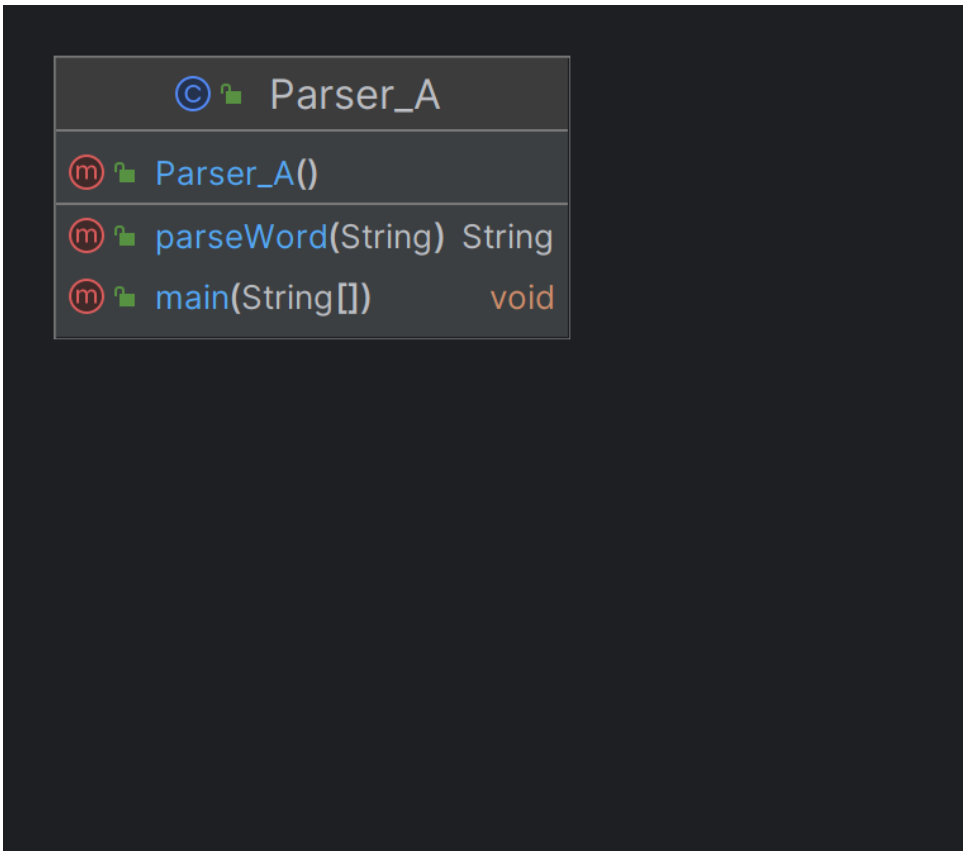

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