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compilers

Final project

NOTE: '\n' didn't work on my system to create newline, but '%n' worked. This seems to be a java convention...

doesn't work

```
print "Hello,\neveryone!";
```

works

```
print "Hello,%neveryone!";
```

Building the interpreter

```
cd src/app
./gradlew build
```

generated files are located at build/ directory.

Running the interpreter

Linux

```
miniPL/bin/app <FILE_NAME>
```

Windows

```
miniPL/bin/app.bat <FILE_NAME>
```

CFG

Note: language doesn't have '&' operator, forgot to implement...

```
stmtList => stmt ";" (stmt ";")*
stmt      => assertStmt | assignStmt | forStmt | printStmt | readStmt | varStmt
          | expr
```

AST

```
print "How many: ";
read count;

var first: int := 0;
var second: int := 1;
var y: int;

print first;
print "%n";
for x in 0..count-1 do
    print second;
    print "%n";
    y := second;
    second := second + first;
    first := y;
end for;

assert (first = second);
```



Error handling

When encountering an error interpreter prints out either `scanninError`, `parsingError` or `interpretingError` depending on at what stage of execution error occurs. When error occurs interpreter prints out an error message and execution halts.

Work hours

Approximately 25-30 hours. Quite a lot of time was spent at the start, when trying to implement interpreter first in Rust programming language.