Homework 6
CS420/KAIST Spring 1999
이 광근
Due: May 6 (목요일), 24:00

1999년 4월 30일

Exercise 1 "tcoML parser"

The tcoML's syntax is defined in the handouts in class (or in class web page). You have to write a tcoML parser. Your parser's syntax-error message must include the error range of the following format

linenumber : column - linenumber : column

For example, your compiler have to say something like

```
Syntax error at Line 12:31 - Line 13:2
```

□

Exercise 2 "tcoML interpreter"

Write an exact and robust interpreter for tcoML:

```
intp:  string -> unit
```

The `intp(foo.tco)` interprets the program stored in file `foo.tco` and prints out its value in the screen followed by a new line. Because any value can be returned (even the function value), you have to define a pretty printer for all the expression values. Note that a function value is the pair of function definition and an environment, hence you need a pretty printer for enviroment too. The `write` e expression prints the value of e to the screen followed by a new line.

"Exact" interpreter means that only the programs whose semantics are defined have to be interpreted. "Robust" interpreter means that every run-time error case has to be handled, printing out sensible diagnostic messages.

You will pleasantly enjoy that your interpreter function look very much like the semantics rules. □