Running the CH Interpreter: The CH Interpreter is an interactive terminal-based program, invoked by the command `ch` (in Linux). At startup, it automatically reads and processes a file of standard definitions, and then repeatedly accepts three types of instructions from the terminal:

<EXPRESSION>

evaluate the expression and output the result

`:load` *<FILENAME>*

read and process the file *<FILENAME>*, which can contain only definitions

<END-OF-FILE> (Control-D in Linux)

terminate the execution of the Interpreter.

CH SYNTAX

{ X }* denotes zero or more occurrences of X
[X] denotes zero or one occurrences of X
X | Y denotes either X or Y

```
<SESSION>     ::= { <EXPR-1>  :load <FILENAME> }* <END-OF-FILE>

<EXPR-1>      ::= \ <NAME> -> <EXPR-1>
                  if <EXPR-2> then <EXPR-1> else <EXPR-1>  |
                  <EXPR-2>

<EXPR-2>      ::= <EXPR-3> { || <EXPR-3> }*

<EXPR-3>      ::= <EXPR-4> { && <EXPR-4> }*

<EXPR-4>      ::= <EXPR-5> [ <RELOP> <EXPR-5> ]

<EXPR-5>      ::= <EXPR-6> { : <EXPR-6> }*

<EXPR-6>      ::= [-] <EXPR-7> { <ADDOP> <EXPR-7> }*

<EXPR-7>      ::= <EXPR-8> { * <EXPR-8> }*

<EXPR-8>      ::= <EXPR-9> { <EXPR-9> }*

<EXPR-9>      ::= <NAME>  <NUMBER>  True  False  [] | ( <EXPR 1> )

<RELOP>       ::= ==  /=  <  <=  >  >=

<ADDOP>       ::= +  -

<FILENAME>    ::= <NAME>.hs

<END-OF-FILE> ::= Control-D (in Linux)

<NAME>        ::= <LC-LETTER> { <LC-LETTER> | <UC-LETTER> | <DIGIT> | _ | ' }*

<NUMBER>      ::= [ - ] <DIGIT> { <DIGIT> }*

<LC-LETTER>   ::= a | b | c | ... | z

<UC-LETTER>   ::= A | B | C | ... | Z

<DIGIT>       ::= 0 | 1 | 2 | ... | 9

<DEFN>        ::= <NAME> = <EXPR 1>
```