

## Health Tracker Language Minimal Language

### Minimal Former Grammar

```

<exp> ::= <day>_<activity>
<day> ::= date_<month><day><year>
<month> ::= 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12
<day> ::= 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12
          | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
          26 | 27 | 28 | 29 | 30 | 31
<year> ::= <digit><digit><digit><digit>
<digit> ::= 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9
<activity> ::= h2o_<time> | h2o_<time>_<activity>
<time> ::= <digit><digit><digit><digit>
<h2o> ::= h2o_<time>

```

### Minimal Semantics

Syntax	Abstract Syntax	Type	Meaning
Time	float	float	Time is a primitive
h2o	Time of float	float	h2o is the time of which the h2o event takes place
Activity	h2o list	list of floats	Has every event which has taken place over the day of which you want to track
day	date: Date; activity: Activity	record of ints and float lists	keeps track of the date and list of the activities

There is no precedence or associativity