ungrouped table grammar v0

Abstract

This is to define the syntax to control the appearance of table cells and the horizontal lines in the table.

It is a modification of LaTeX syntax for creating tabular data.

Alphabet

same as Python alphabet

Production rules

S → <itemOrder>

<itemOrder> → <cellOrder> | <hlineOrder>

<hlineOrder> → <hlineID> “<” <seqNumber> “>” <newline>

<cellOrder> → <cellID> “<” <seqNumber> “>” <newline>

<cellID> → <arrayID> <indexChain>

<indexChain> → “[” <index> “]” λ | <indexChain>

<hlineID> → <stringIdentifier>

<arrayID> → <stringIdentifier>

<index> → <number> $^{+}$

<seqNumber> → <number> $^{+}$

<stringIdentifier> → <char> <stringTail>

<stringTail> → λ | <char> | <number> <stringTail>

<char> → “a” | “b” | … | “z” | “A” | “B” | … | “Z” | “_”

<number> → “0” | “1” | … | “9”

<newline> → “\n”

Sample code snippet

Written using this grammar

```
% create a table in standard latex syntax
% --------------no vert bar--tableID (behaves like HTML tag ID)
\begin{tabular} {@{} c @{}} [tableID="mytable"]
    col1 & col2 & col3 \\
    \hline [hlineID="hline1"]
    col1 & col2 & col3 \\
    col1 & col2 & col3 \\
    \hline [hlineID="hline2"]

% this section uses the new grammar
% defining custom order for each cells
mytable[0][1] <1>
mytable[0][0] <2>
hline1 <2>          % hline1 will appear alongside mytable[0][0]
mytable[1][2] <4>
mytable[2][0] <4>
hline2 <5>          % hline2 will appear after mytable[1][2] and mytable[2][0]
```

Problems

Things that next versions should be able to address:

- thing 1
- thing 2