

lolcode Markdown Language Context Free Grammar

The following is one possible context free (i.e., BNF) grammar for our lolcode Markdown language, described in Project 1.

Terminals

HAI	::=	"#HAI"
KTHXBYE	::=	"#KTHXBYE"
OBTW	::=	"#OBTW"
TLDR	::=	"#TLDR"
MAEK	::=	"#MAEK"
OIC	::=	"#OIC"
GIMMEH	::=	"#GIMMEH"
MKAY	::=	"#MKAY"
HEAD	::=	"HEAD"
TITLE	::=	"TITLE"
PARAGRAF	::=	"PARAGRAF"
BOLD	::=	"BOLD"
ITALICS	::=	"ITALICS"
LIST	::=	"LIST"
ITEM	::=	"ITEM"
NEWLINE	::=	"NEWLINE"
SOUNDZ	::=	"SOUNDZ"
VIDZ	::=	"VIDZ"
IHAZ	::=	"#I HAZ"
ITIZ	::=	"#IT IZ"
LEMMESEE	::=	"#LEMME SEE"
VARDEF	::=	any single word (A–Z, a–z, no spaces)
VARVAL	::=	allowed text characters
TEXT	::=	plain text (letters, digits, punctuation, spaces)
ADDRESS	::=	text without spaces

* Note that these terminals *are not case sensitive*.

* * The only allowed plain text in our language is: A-Z, a-z, 0-9, commas, period, quotes, colons, question marks, underscores and forward slashes.

Production Rules (i.e., non-terminals)

<lolcode>	::=	HAI <comments> < head> <body> KTHXBYE
<comments>	::=	<comment> <comments> ϵ
<comment>	::=	OBTW TEXT TLDR
<head>	::=	MAEK HEAD <title> OIC ϵ
<title>	::=	GIMMEH TITLE TEXT MKAY
<body>	::=	<inner-body> <body> ϵ
<inner-body>	::=	<paragraph> <bold> <italics> <list> <audio> <video> <newline> <variable-define> <variable-use> TEXT <comment>
<paragraph>	::=	MAEK PARAGRAF <variable-define> <inner-paragraph> OIC
<inner-paragraph>	::=	<inner-text> <inner-paragraph> ϵ

<inner-text>	::=	<variable-use> <bold> <italics> <list> <audio> <video> <newline> TEXT ε
<bold>	::=	GIMMEH BOLD TEXT MKAY
<italics>	::=	GIMMEH ITALICS TEXT MKAY
<list>	::=	MAEK LIST <list-items> OIC
<list-items>	::=	<list-item> <list-items> ε
<list-item>	::=	GIMMEH ITEM <inner-list> MKAY
<inner-list>	::=	<bold> <italics> TEXT <variable-use> ε
<audio>	::=	GIMMEH SOUNDZ ADDRESS MKAY
<video>	::=	GIMMEH VIDZ ADDRESS MKAY
<newline>	::=	GIMMEH NEWLINE
<variable-define>	::=	IHAZ HAZ VAR_NAME ITIZ VALUE MKAY ε
<variable-use>	::=	LEMME SEE VAR_NAME MKAY