



**Universidad de Carabobo**  
**Facultad Experimental De Ciencias Y Tecnología**  
**Departamento de Computación**  
**Lenguajes de Programación**



**Asignacion 1: Lezer**

**Alumno: Jose Rivero, C.I: 28492353**  
**Valencia, Marzo 2025**

## Gramática:

```
@top JSON { Element }

@tokens {
  // Números
  number { @number }
  integer { /0|[1-9]\d*/ }
  fraction { /\.\d+/ }
  exponent { /[eE][+-]? \d+/ }

  // Strings
  string { "\"" ( [^"\\] | "\\" ["\\/\bfnrt] | "\\u" [0-9a-fA-F]{4} )* "\"" }

  // Literales
  true { "true" }
  false { "false" }
  null { "null" }

  // Símbolos
  comma { "," }
  colon { ":" }
  lbrace { "{" }
  rbrace { "}" }
  lbracket { "[" }
  rbracket { "]" }

  // Espacios
  @space { " " | "\t" | "\n" | "\r" }
}

@rules {
  Element { Object | Array | string | number | true | false | null }

  // Objetos
  Object { lbrace Members? rbrace }
  Members { Member (comma Member)* }
  Member { string colon Element }

  // Arrays
  Array { lbracket Elements? rbracket }
  Elements { Element (comma Element)* }

  // Reglas numéricas
  number { "-"? (integer fraction? exponent? | integer exponent | fraction exponent?) }
}
```

[	!	"	#	\$		&	'	(	)	*	+	,	-	.	/
0020	0021	0022	0023	0024	0025	0026	0027	0028	0029	002A	002B	002C	002D	002E	002F
0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
0030	0031	0032	0033	0034	0035	0036	0037	0038	0039	003A	003B	003C	003D	003E	003F
@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
0040	0041	0042	0043	0044	0045	0046	0047	0048	0049	004A	004B	004C	004D	004E	004F
P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
0050	0051	0052	0053	0054	0055	0056	0057	0058	0059	005A	005B	005C	005D	005E	005F
`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
0060	0061	0062	0063	0064	0065	0066	0067	0068	0069	006A	006B	006C	006D	006E	006F
p	q	r	s	t	u	v	w	x	y	z	{		}	~	DEL
0070	0071	0072	0073	0074	0075	0076	0077	0078	0079	007A	007B	007C	007D	007E	007F
PAD	HOP	BPH	NBH	IND	NEL	SSA	ESA	HTS	HTJ	LTS	PLD	PLU	RI	SS2	SS3
0080	0081	0082	0083	0084	0085	0086	0087	0088	0089	008A	008B	008C	008D	008E	008F
DCS	PU1	PU2	STS	CCH	MW	SPA	EPA	SOS	SG CI	SCI	CSI	ST	OSC	PM	APC
0090	0091	0092	0093	0094	0095	0096	0097	0098	0099	009A	009B	009C	009D	009E	009F

...

Basic Latin 0000–007F

Latin-1 Supplement 0080–00FF

Latin Extended-A 0100–017F

Latin Extended-B 0180–024F

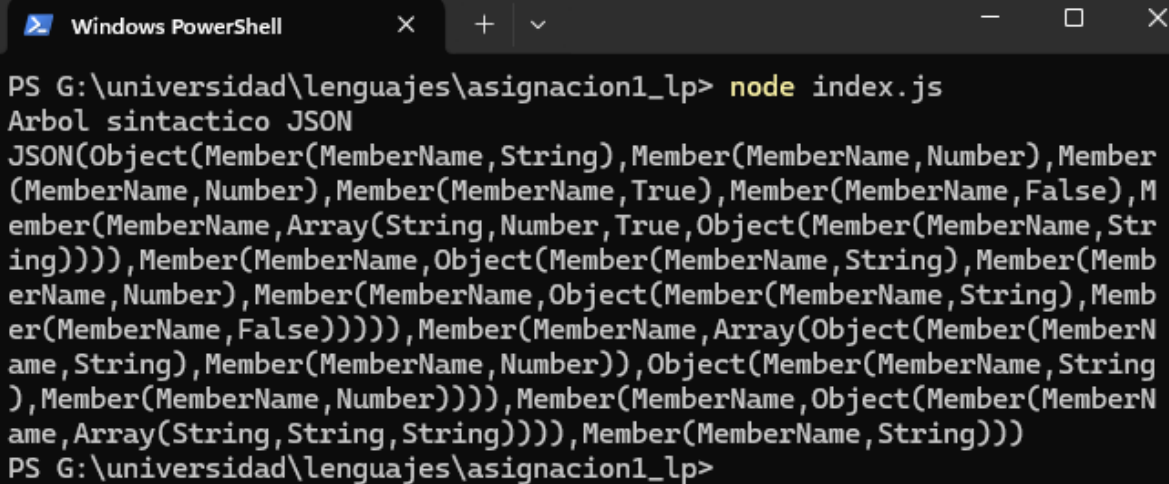


Caracteres definidos para Basic Latin, Latin-1, Latin Extended-A y B

Salida por consola

Arbol sintactico JSON

```
JSON(Object(Member(MemberName,String),Member(MemberName,Number),Member(MemberName,Number),Member(MemberName,True),Member(MemberName,False),Member(MemberName,Array(String,Number,True,Object(Member(MemberName,String))))),Member(MemberName,Object(Member(MemberName,String),Member(MemberName,Number),Member(MemberName,Object(Member(MemberName,String),Member(MemberName,False))))),Member(MemberName,Array(Object(Member(MemberName,String),Member(MemberName,Number)),Object(Member(MemberName,String),Member(MemberName,Number))),Member(MemberName,Object(Member(MemberName,Array(String,String,String))),Member(MemberName,String)))
```



The screenshot shows a Windows PowerShell window with the title bar 'Windows PowerShell'. The command prompt shows the user running 'node index.js' in the directory 'G:\universidad\lenguajes\asignacion1\_lp'. The output of the script is the same JSON tree structure as shown in the previous block, printed to the console.

```
PS G:\universidad\lenguajes\asignacion1_lp> node index.js
Arbol sintactico JSON
JSON(Object(Member(MemberName,String),Member(MemberName,Number),Member(MemberName,Number),Member(MemberName,True),Member(MemberName,False),Member(MemberName,Array(String,Number,True,Object(Member(MemberName,String))))),Member(MemberName,Object(Member(MemberName,String),Member(MemberName,Number),Member(MemberName,Object(Member(MemberName,String),Member(MemberName,False))))),Member(MemberName,Array(Object(Member(MemberName,String),Member(MemberName,Number)),Object(Member(MemberName,String),Member(MemberName,Number))),Member(MemberName,Object(Member(MemberName,Array(String,String,String))),Member(MemberName,String)))
PS G:\universidad\lenguajes\asignacion1_lp>
```

