Programming Languages Assignment 2

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September 30, 2020

Abstract

Lorem ipsum

1 Question 1

This template report shows how to include Haskell and EBNF code into a document and how to include the generated syntax diagrams.
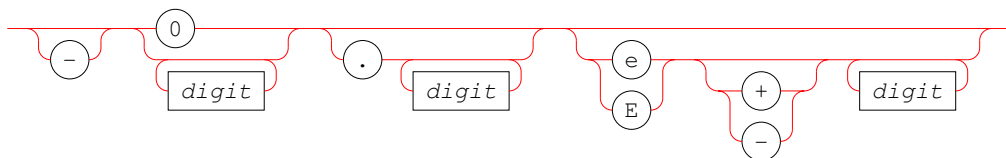
1.1 Intro stuff 1

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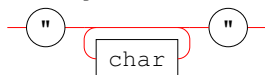### 1.1.1 Intro stuff 2

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1.2 Number Syntax

number


```
number ::= ["-"] ("0" | {$digit$}) ["." {$digit$}]
[("e" | "E") ["+" | "-"] {$digit$}];
level="lexical".
```
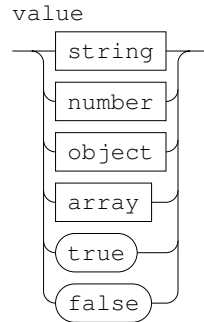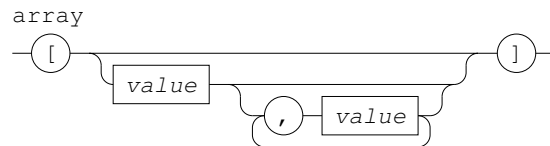
1.3 String Syntax

string


```
string ::= "\"" {char} "\"";
level="lexical".
```
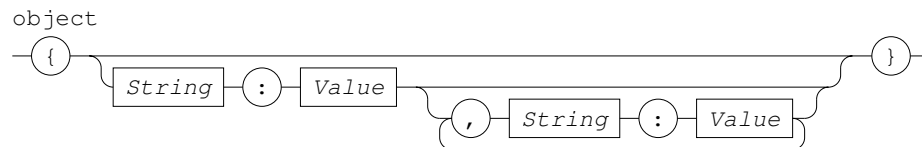
1.4 Value Syntax

value


```
value ::= string | number | object | array
| "true" | "false";
level="context".
```

1.5 Array Syntax

array


```
array ::= "[" [$value$ {"," $value$}] "]";
level="context".
```

1.6 Object Syntax

object


```
object ::= "{" [$String$ ":" $Value$
{"," $String$ ":" $Value$}] "}";
level="context".
```

2 Question 2

2.1 Definition of Data Types

```
data Value = Str String
| Num Double
deriving (Show)

data Object = Object
{ identifier :: String
, value :: Value
} deriving (Show)

makeObject :: String -> Value-> Object
makeObject i v = (Object i v)
```