# MAlice Language Specification

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## 1 Introduction

#### 2 BNF Grammar

```
Program
                   Statements Output
                   Statement Terminator Statements | \epsilon
Statements
Terminator
                    , |.| and | but | then
Output
                   Alice found \operatorname{Exp} .
                   Id was a Type Too
Statement
                   Id became Exp
                   \operatorname{Id} ate
                   Id drank
Type
                   number
Too
                   too \mid \epsilon
Exp
                   Exp | Exp1
                   Exp ^ Exp1
                    Exp & Exp1
                   Exp1
                  Exp1 + Exp2
Exp1
                   Exp2
Exp2
                   Exp2 * Exp3
                    \mathrm{Exp}2 / \mathrm{Exp}3
                    Exp2 % Exp3
                    Exp3
                    ~Val | Val
Exp3
Val
                   Int \mid Id
```

#### 3 Semantics

#### 3.1 Statements

1. This is item 1.

2. And this is item 2.

And here is a bulleted list.

• The parts of the list are called items here too.

Finally for this document, if you want to include a reference then you put it into a thebibliography{...} environment (see below in source file) and then cite it like this [1] (you will need to run latex twice to get it to process the citation), or you can use BibTex but that is probably overkill for now.

### References

[1] Leslie Lamport, \( \mathbb{L}TEX: \) A Document Preparation System. Addison Wesley, Massachusetts, 2nd Edition, 1994.