# **Requirements Document**

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## Definitions

#### **Standard out**

Usually the main output of a console. Some place specified for most output of the program to go.

#### **The Primitives**

The basic built in types of the language including: Floats, Strings, Lists and Booleans

## Requirements

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **id** | **functional-requirement** | **demonstration scenarios** | **success measure** |  |
| 1 | The programing language SHALL be able to print the primitives to standard out | 1. A print statement with a string as an argument 2. A print statement with a integer as an argument | 1. print out the string in the argument 2. print out the integer in the argument |  |
| 2 | The programing language SHALL have constructs that allow for a block of code to be executed or not executed based on a condition | 1. An if statement with a 'true' statement as it's condition and a print statement in it's body 2. An if statement with a 'false' statement as it's condition and a print statement in it's body | 1. the code in the body executes the print statement showing it on standard out 2. the code in the body does not execute the print statement not showing it on standard out |  |
| 3 | The programing language SHALL be able to store primitives in temporary memory in the form of a variable | 1. A code file is ran with the code that will store a 2 in a variable and print it to the screen | 1. The code file prints out the 2 that was stored |  |
| 4 | The programing language SHALL be able to repeat blocks of code | 1. A print statement that has “hello” as the argument is inside of a repeat block which has a 5 as it’s argument | 1. The program will display the word “hello” 5 times on standard out. |  |
| 5 | The programing language SHALL be able to define and run functions | 1. A function definition of an 'add' function. That is latter used with the arguments 3 and 2 | 1. When the defined 'add' function is ran it will add the numbers 3 and 2 and return 5 |  |
| 6 | The programing language SHALL have a way for functions to return values | 1. A function that returns a 5 to a print statement | 1. the print statement prints the 5 to standard out |  |
| 7 | The programing language SHALL be able to check if two floats (floating point numbers) are equal | 1. A comparison operator returning to a print statement that is checking if 2 is equal to 2 2. A comparison operator returning to a print statement that is checking if 2 is equal to 3 | 1. the print statement will print 'true' to standard out 2. the print statement will print 'false' to standard out |  |
| 8 | The programing language SHALL be able to check if two lists are structurally equivalent, meaning, they contain equivalent (defined by the equality operator) elements in the same order. | 1. A list which contains 1, 2 and 3 is checked against itself 2. A list which contains 1, 2 and 3 is checked against another list containing 1, 2, 3 3. A list which contains 1, 2 and 9 is checked against another list containing 1, 2, 3 4. A list which contains nothing is checked against another list containing 1, 2, 3 | 1. returns true 2. returns true 3. returns false 4. returns false |  |