ROTATE PROGRAMMING LANGUAGE

Specs

1. High performance (native support)
2. Low learning curve
3. Cross-platform support (Linux , Windows, Mac(later))
4. immutable by default
5. Multi-Threading (later)
6. [vr] file extension
7. can use C headers or have JNI support
8. safety (later)
9. convert to Ts/Js/Wasm (later)

OVERVIEW

Hello World

```
log("Hello World");
```

Comments

```
// single line comment
/* multi line comment */

/// Documentaion comment
```

Variables

```
// immutable string
NAME: s = "a string";
name2: !s = "mutable string";
// 32bit int
number1 :i32 = 23;
unumber1 :ui32 = 23;
// 32bit float
number2 :f32 = 23.0;
// 32bit double
number3 :d32 = 23.123;
```

more data types to be implemented

Arrays

```
array := [1, variable, "string"];
```

start at zero

Functions

```
fn main() {
    log("Hello World");
}
```

doesnt return unless specified

```
fn example() -> s {
    return "Hello World";
}
```

example of a function that returned a string

Imports

```
// for files
import "file.vr";
```

```
// for std libs
import stdio;
```

Strings

```
 name:s = "Hello World";
 name2:s = "$name, World";
```

Operators and Logic

> *same as C*

If Statements

```
if x == 2 {
    // code
} else if x == 3 {
    // code
} else {
    // code
}
```

Switch statments

```
match x {
    | 1 :
```

```
        // do
        break;
    | 2 :
        //do
        break;
    | 3 :
        // do
        break;
}
```

Loops

for and while same as C with another foreach loop

```
foreach(i, 0..10) {
    log("$i");
}
```

Structs

> *same as C*

OOP (later)