Rotate Programming Language

Contents

Project Link

```
https://github.com/Airbus5717/rotate-cpp
```

Basics

Hello World

```
fn main() void {
    @println("Hello World");
}
```

Comments

```
// for single line comments
/*
   multi-line comments
*/
```

Variables

Basic variables

```
let x: int = 1;
let y: float = 1.0;
let z: char = 'c';
let a: bool = true;
let b: str = "string";
```

```
// arrays
let arr1 := []int{ 1, 2, 3 };

// structs
struct vec {
    c: int;
    d: int;
}

let vector = vec{c:1, d:1};
vector.c = 12;
vector.d = 3;
```

Language specification

Types

- \bullet int
- \bullet floats
- \bullet strings
- \bullet chars
- booleans

Symbols

- equal equal ==
- \bullet equal =
- \bullet colon :
- \bullet semicolon;
- \bullet add equal +=
- \bullet plus +
- \bullet sub equal -=

- minus -
- mult equal *=
- star *
- div equal /=
- division /
- \bullet left parenthese (
- right parenthese)
- left curly brackets {
- right curly brackets }
- left sqr brackets [
- right sqr brackets]
- \bullet greater or equal >=
- \bullet greater >
- \bullet less or equal <=
- \bullet less <
- dot .
- not !

Keywords

- if
- \bullet fn
- \bullet or
- as
- \bullet for

- \bullet let
- \bullet pub
- $\bullet \ \mathrm{str}$
- mut
- \bullet int
- \bullet ref
- \bullet and
- \bullet else
- \bullet true
- \bullet char
- bool
- \bullet void
- \bullet skip
- \bullet while
- \bullet false
- \bullet match
- \bullet break
- float
- \bullet defer
- \bullet return
- import
- \bullet struct
- \bullet include

TODO

Compiler

- Parser
- \bullet Type Checker & Analysis
- Optimization
- CodeGen

DOCS

- \bullet Add a copy button in HTML docs export
- Add automation to docs generation