

環境安裝與基本語法

Justa from Bucket Protocol



Bucket

大綱

- 如何使用 Sui CLI
- 套件與模組
- 基本型別與陣列
- 標準函式庫
- 運算符
- 判斷式、迴圈、中斷

Sui CLI Installation (macOS)

- `/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"`
- `brew install curl cmake libpq git`
- `brew install sui`

Sui CLI Installation (Linux)

- `sudo apt-get install curl git-all cmake gcc libssl-dev pkg-config libclang-dev libpq-dev build-essential`
- `/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"`
- `brew install sui`

Sui CLI Installation (Windows)

- Download binary from <https://github.com/MystenLabs/sui/releases>
- Unzip and move sui.exe to bin path
 - move sui.exe C:\Program Files

Sui CLI Setup Envs

- `sui -V`
- `sui client new-env --alias devnet --rpc https://fullnode.devnet.sui.io:443`
- `sui client new-env --alias testnet --rpc https://fullnode.testnet.sui.io:443`
- `sui client new-env --alias mainnet --rpc https://fullnode.mainnet.sui.io:443`
- `sui client envs`
- `sui client switch --env devnet`

Sui CLI Setup Account

- `sui keytool import "alice bob ..." ed25519`
- `sui client new-address ed25519`
- `sui keytool list`
- `sui client addresses`
- `sui client active-address`
- `sui client switch --address 0x123...`

Sui CLI faucet

- sui client faucet
- sui client gas

New Project

- `sui move new SuiMoverPlayground`
- `cd SuiMoverPlayground`
- `sui move build`
- `sui move test`

套件與模組

```
package 0x...  
    module a  
        struct A1  
        fun hello_world()  
    module b  
        struct B1  
        fun hello_package()
```

專案架構

```
sources/  
    my_module.move  
    another_module.move  
    ...  
tests/  
    ...  
examples/  
    using_my_module.move  
Move.toml
```

基本型別

- bool
- unsigned integers
 - u8, u16, u64, u128, u256
- address
- vector<T>

運算符

Syntax	Operation	Aborts If
+	addition	Result is too large for the integer type
-	subtraction	Result is less than zero
*	multiplication	Result is too large for the integer type
%	modular division	The divisor is 0
/	truncating division	The divisor is 0

標準函式庫

Module	Description	Chapter
<code>std::string</code>	Provides basic string operations	String
<code>std::ascii</code>	Provides basic ASCII operations	String
<code>std::option</code>	Implements an <code>Option<T></code>	Option
<code>std::vector</code>	Native operations on the vector type	Vector
<code>std::bcs</code>	Contains the <code>bcs::to_bytes()</code> function	BCS
<code>std::address</code>	Contains a single <code>address::length</code> function	Address
<code>std::type_name</code>	Allows runtime <i>type reflection</i>	Type Reflection
<code>std::hash</code>	Hashing functions: <code>sha2_256</code> and <code>sha3_256</code>	Cryptography and Hashing
<code>std::debug</code>	Contains debugging functions, which are available in only in test mode	Debugging

判斷式、迴圈、中斷

- `if` and `if-else` - making decisions on whether to execute a block of code
- `loop` and `while` loops - repeating a block of code
- `break` and `continue` statements - exiting a loop early
- `return` statement - exiting a function early