



SelfieCodedStructure

in selfie this is the processor

header

library

compiler

**backend  
of compiler**

interface

**frontend  
of emulator**

emulator

hypervisor

SAT solver

main()



in selfie this is the operating system



# The Selfie Library

```
uint64_t leftShift(uint64_t n, uint64_t b);  
uint64_t rightShift(uint64_t n, uint64_t b);
```

```
uint64_t getBits(uint64_t n, uint64_t i, uint64_t b);  
uint64_t getLowWord(uint64_t n);  
uint64_t getHighWord(uint64_t n);
```

```
uint64_t abs(uint64_t n);
```

```
uint64_t signedLessThan(uint64_t a, uint64_t b);  
uint64_t signedDivision(uint64_t a, uint64_t b);
```

```
uint64_t isSignedInteger(uint64_t n, uint64_t b);  
uint64_t signExtend(uint64_t n, uint64_t b);  
uint64_t signShrink(uint64_t n, uint64_t b);
```

```
uint64_t loadCharacter(uint64_t* s, uint64_t i);  
uint64_t* storeCharacter(uint64_t* s, uint64_t i, uint64_t c);
```

```
uint64_t stringLength(uint64_t* s);  
void stringReverse(uint64_t* s);  
uint64_t stringCompare(uint64_t* s, uint64_t* t);
```

```
uint64_t atoi(uint64_t* s);  
uint64_t* itoa(uint64_t n, uint64_t* s, uint64_t b, uint64_t a, uint64_t p);
```



# Selfie Code Structure

