

CS315-01 C Review

Setup Help Today

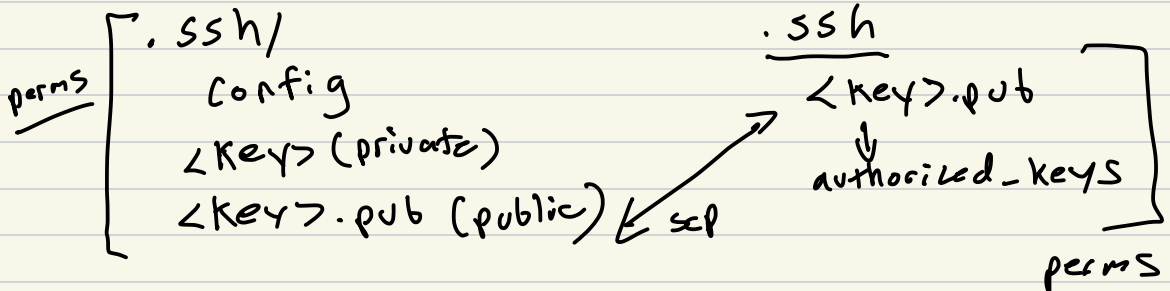
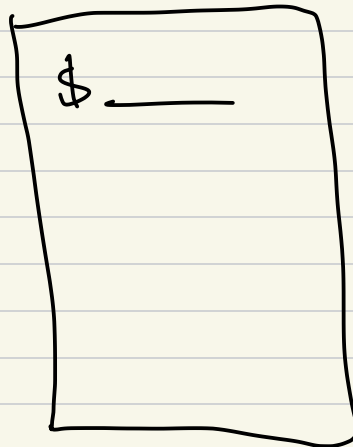
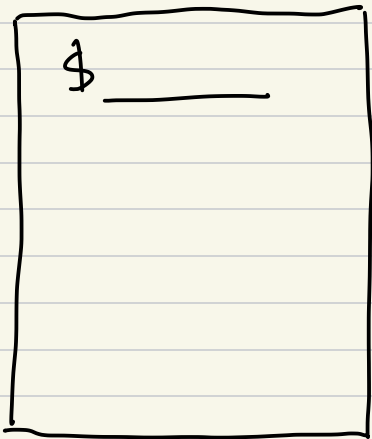
10am - 10:30am CS Labs

OH 1:40pm to 2:30pm HE412A

ssh

Laptop

Stargate



C Programming Language

compiled

`gcc -o hello hello.c`
executable source

C constructs

Functions

↑
code

Data - variables

globals

stack (local)
vars

heap

(malloc/free)

Statements

$x = 3;$ assignment
↑
expr

```
if (x > 0) {  
    x = x - 1;  
}
```

```
printf("hi");
```

```
for (i = 0; i < 10; i++) {  
    printf("i = %d\n", i);  
}
```

```
while ( )
```

```
switch ( )
```

Functions

```
int add_2 (int x) {  
    return x + 2;  
} body
```

↑

C is statically typed

Python is dynamically typed

Strings

String literal

auto add nul

```
char str[] = "hello";
```

types

primitive / scalar

int (4 bytes)

-2, -1, 0, 1, 2

char

'a'

byte

8 bit

float

3.14

double

3.14

Structs

pointers