

L1: Pointers

Introduction to pointers

At the time of compilation, a symbol table is created which maps all the variables with their memory locations.

i \rightarrow 700 (say)

j \rightarrow 800

k \rightarrow 790

$\&i^0$: address of i^0

0x 1) hexadecimal

base 16

0 . . . 9 a b c d e f

* Address is stored in variables called pointers.

```
int *p = &i;
```

'p' points to an integer i.e. stores its address.

Dereference operator.

If 'p' is a pointer, when $*p$ is printed the value in the address pointed by 'p'.

```
cout << *p;
```

Null pointer

```
int *p = 0;
```

declares a null pointer