Pointer

A variable that holds an address

Declare a pointer

<type> \*name;

int \*p; float \*q; char \*c;

Assigning a value

a) address of operator &

int x = 50;

int \*p = &x; (p will equal the address of x, not the value);

b) memory allocation functions

malloc – chunks the memory (no initialize)

calloc – assumes memory is used for array (initializes)

c) assign the value NULL

int \*p = NULL; p points to nothing

To get the value that p points to

Indirection operator/dereferencing operator (\*)

int y = \*p;

example

int x = 50;

int y = 105;

int \*ptr1 = NULL; (dereferencing will give a segmentation fault)

int \*ptr2 = &y;

\*ptr2 = 75; (the value of ptr2 would change to 75 instead of mem address for y)

\*ptr1 = \*ptr2; (ptr1 will equal 105)