

# Traditional Pointer Exercises

- Write a simple program that creates a pointer
- Use a stack variable to set the pointer's value
- Print out the value of the pointer
- Print out the value of the stack variable by dereferencing the pointer

- Explain what is meant by passing an argument by address to a function
- Write a simple program which passes an argument by address to a function which modifies it
- In the function, print out the value of the pointer and the data it points to, before and after modifying it
- Print out the value of the variable in main() before and after calling the function

- Explain how to obtain allocated memory from the heap
- Why are pointers needed for this kind of memory?
- What important thing must you do with this memory when you have finished using it? Why is it important?

- Explain how to obtain allocated memory from the heap which can be used for an array
- Write a simple program which allocates memory from the heap for an array. Populate the array and print out the values of its elements
- What important thing must you do with this memory when you have finished using it? Why is it important?