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## **CHAPTER – 7**

### **POINTER DATA TYPE**

#### **INTRODUCTION**

In c a pointer is a variable that points to or references a memory location in which data is stored. Each memory cell in the computer has an address that can be used to access that location so a pointer variable points to a memory location we can access and change the contents of this memory location via the pointer.

A pointer is a full word variable that contains the address of another variable. The only thing that makes a C pointer different from an assembler ADCON is that in C you must specify what kind of variable a pointer will address when you first declare it.

#### **POINTER ON POINTER**

While pointers provide enormous power and flexibility to the programmers, they may use cause manufactures if it not properly handled. Consider the following precautions using pointers to prevent errors. We should make sure that we know where each pointer is pointing in a program. Here are some general observations and common errors that might be useful to remember.

A pointer contains garbage until it is initialized. Since compilers cannot detect un-initialized or wrongly initialized pointers, the errors may not be known until we execute the program remember that even if we are able to locate a wrong result, it may not provide any evidence for us to suspect problems in the pointers.