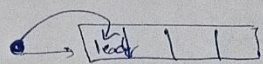
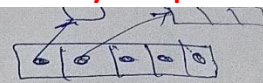
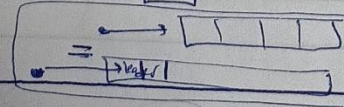
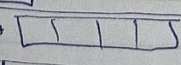
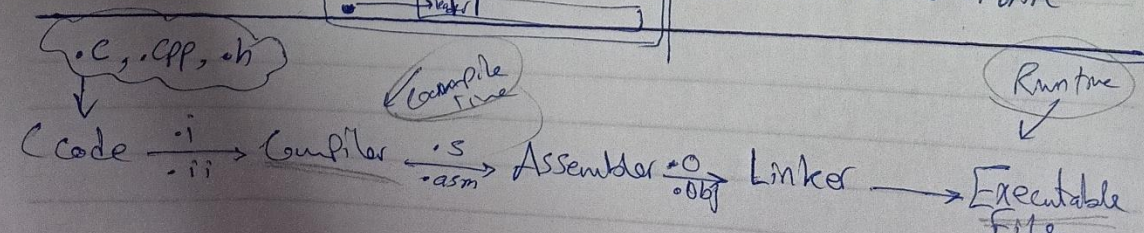


Difference between pointer to an array and array of pointers

		
Parameters	Pointer to An Array	Array of Pointers
Known as	<u>Array Pointer</u>	<u>Pointer Arrays</u>
Uses & Purposes	user Creates the Pointer for storing the address of any given array	user creates the Array of pointers that acts as an array of multiple pointer variables.
Initialization at Definition <small>in C++ we can initialize</small>	You Cannot initialize a Pointer to the definition	You initialize an array at the definition level
In Nature	<u>Dynamic</u>	<u>Static</u>
Allocation <small>access / use</small>	Can be allocated during runtime	Can be allocated during compile time
Resizing	One Can easily resize the allocated memory of a pointer later at any given time (Dynamic)	We declare size of an array that Cannot be resized at anytime, we want according to our requirements (Static)
Type of Storage <small>تعداد و نوع</small>	A typical Pointer Variable is Capable of storing Only a Single Variable within. 	The size of any given array decides the total no. of variables that it can store within. 
<div style="display: flex; justify-content: space-between; align-items: center;"> <div>  </div> <div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;">Compile Time</div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;">Runtime</div> </div> </div>		

Pointer to function

- 1) Unlike normal pointers, a function pointer points to code, not data. Typically a function pointer stores the start of executable code
- 2) Unlike normal pointers, we do not allocate de-allocate memory using function pointers.
- 3) Like normal pointers, we can have an array of function pointers. Below example in point 5 shows syntax for array of pointers.
- 4) A function's name can also be used to get functions' address.
- 5) Function pointer can be used in place of switch case.
- 6) Like normal data pointers, a function pointer can be passed as an argument and can also be returned from a function.

