PG – DESD

Module – Embedded C Programming

Trainer - Devendra Dhande

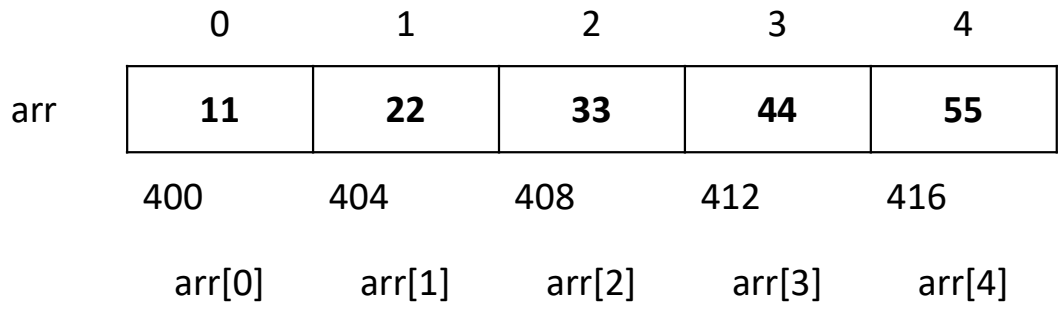
Email – devendra.dhande@sunbeaminfo.com

Mobile No - 9890662093

Arrays

- Array is collection of similar data elements in contiguous memory locations.
- Elements of array share the same name i.e. name of the array.
- They are identified by unique index/subscript. Index range from 0 to n-1.
- Array indexing starts from 0.
- Checking array bounds is responsibility of programmer (not of compiler).
- Size of array is fixed (it cannot be grow/shrink at runtime).

```
int main() {
    int i, arr[5] = {11, 22, 33, 44, 55};
    for(i=0; i<5; i++)
        printf("%d\n", arr[i]);
    return 0;
}
```



Arrays

- If array is initialized partially at its point of declaration rest of elements are initialized to zero.
- If array is initialized at its point of declaration, giving array size is optional. It will be inferred from number of elements in initializer list.
- The array name is treated as address of 0^{th} element in any runtime expression.
- Pointer to array is pointer to 0^{th} element of the array.

Thank you!

Devendra Dhande <devendra.dhande@sunbeaminfo.com>