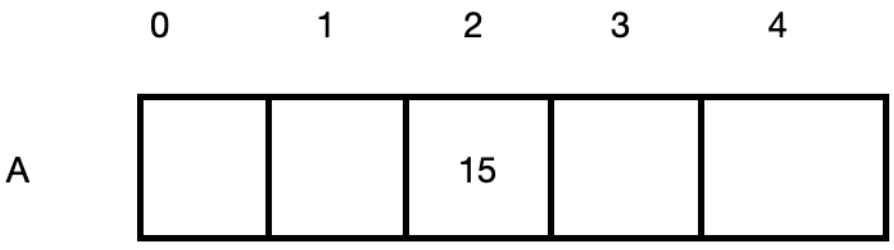
Arrays

- Array is a collection of similar data types grouped under one name
- Its also called vector value
- We can Access or differentiate all the elements in an array using index values
- This concepts is supported by many programming languages

Example :

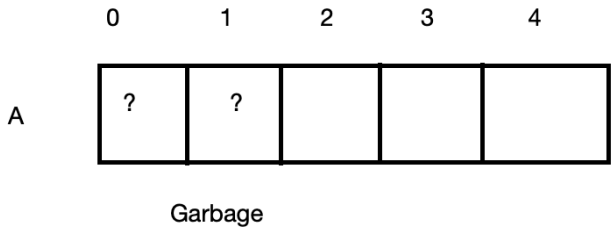
Int A [5]; // Initialise or declaration

A[2] = 15; // Access

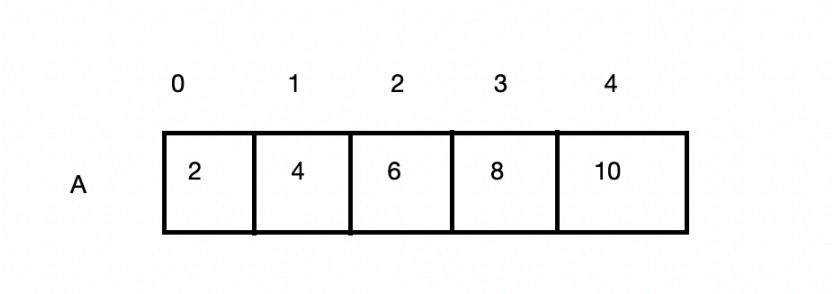


- Some ways of Declaring and initialisation of array are as follows

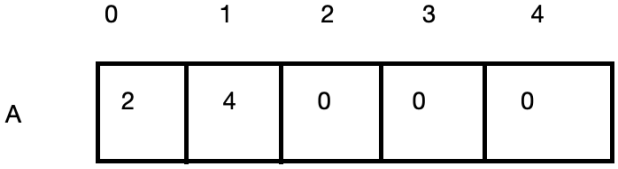
int A[5] ;



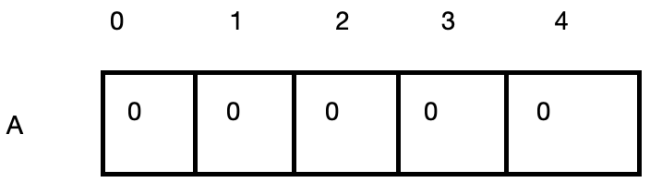
int A[5] = {2,4,6,8,10} ;



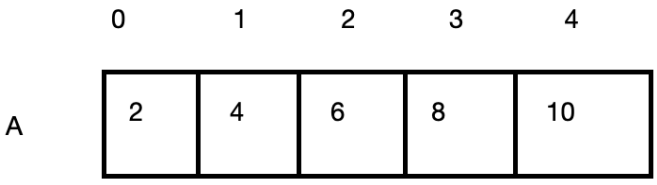
int A[5] = {2,4} ;



int A[5] = {0} ;



int A[ ] = {2,4,6,8,10} ;



- To access all elements in an array , we can traverse through it for example

```
int A[ 5 ] = {2,4,6,8};

for (i = 0; i < 5 ; i++)
{
        printf( “%d”, A[ i ] );

}
```

- The elements inside the array can be access through the subset or through the pointer

```
int A[ 5 ] = {2,4,6,8};

for (i = 0; i < 5 ; i++)
{
        printf( “%d”, A[ i ] );

        printf( “%d”, A[ 2 ] );

        printf( “%d”, 2[ A ] );

        printf( “%d”, *(A + 2 ) );

}
```

// Example of accessing elements inside an array