Swati Mall
Computer Science and Engineering
II Semester

Array of Pointers :

Pointer can be arrayed like any other data type. The declaration for an int pointer array of size 10 is,

```
int *x[10];
```

* To assign the address of an integer variable called var to the third element of the pointer array, write

```
x[2] = &var;
```

* To find the value of var, write

```
*x[2]
```

* Example: WAP to input and print data using array and pointer.

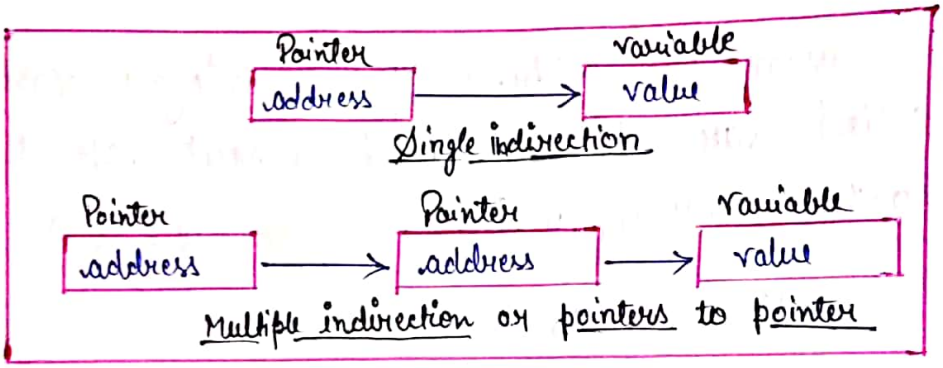
```
#include<stdio.h>
void main()
{
int i, a[5], *p;
   p= &a[0];
for(i=0; i<=4; i++)
 scanf("%od", p+i);
for (i=0; i<=4; i++)
 printf("%od", *(p+i));
}
```

Pointer to Pointer :

You can have a pointer point to another pointer that points to the target value. This situation is called "multiple indirection", or "pointers to pointer".

* Declaration of pointers to pointer,

type **name;



To access the target value indirectly pointed to by a pointer to a pointer, you must apply the asterisk operator twice.

For example:

```
#include<stdio.h>
int main(void)
{
 int x, *p, **q;
 x=10;
 p= &x;
 q= &p;
 printf("%d", **q);
 return 0;
}
```

Output: 10