

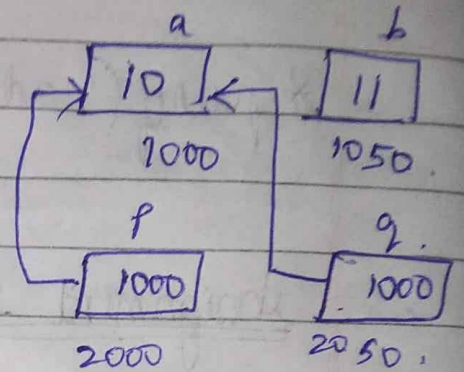
C-73 \Rightarrow Pointers \Rightarrow Pointer assignment

Pointer Assignment:

* How to assign value of a pointer to another pointer?

Example ①

```
int a = 10, b = 11;  
int *p, *q;
```



we access pointers

```
p = &a;  
q = p;
```

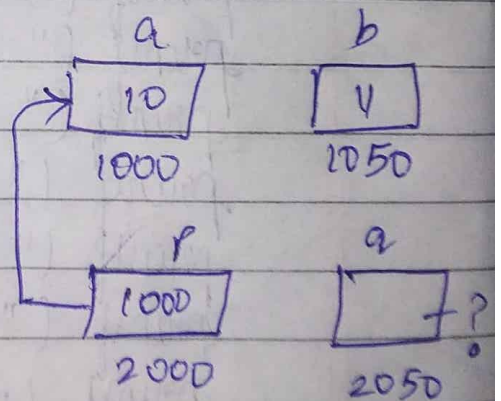
```
printf("Value of a: %.d", a);  $\Rightarrow$  10  
printf("Value of a: %.d", *p);  $\Rightarrow$  10  
printf("Value of a: %.d", *q);  $\Rightarrow$  10
```

Example ②

```
int a = 10, b = 11;  
int *p, *q;
```

```
p = &a;
```

```
*q = *p;
```

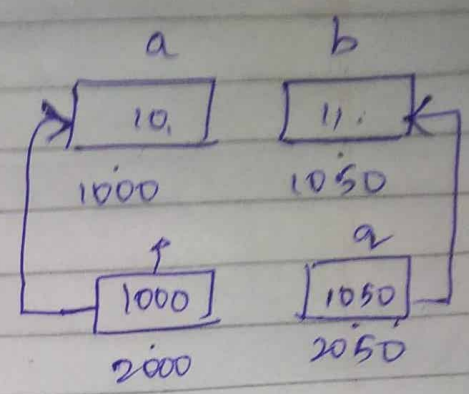


\hookrightarrow This gives warning or error that q is not initialized before that we are giving assignment to pointer.

Example ③

```
int a = 10, b = 11;
int *p, *q;
```

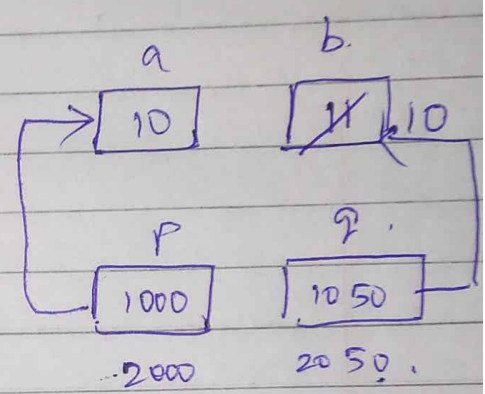
```
p = &a;
q = &b;
```



We access
Values

```
*q = *p;
```

```
*q = *p;
*(&b) = *(&a)
11 10
```



```
printf("Value of a: %d", a); => 10
```

```
printf("Value of a: %d", *p); => 10
```

```
printf("Value of b: %d", b); => 10
```

```
printf("Value of b: %d", *q); => 10
```

Case 1:

```
[q = p] -> we access pointers
```

Case 2:

```
[*q = *p] -> we access values.
```

CODE 1:

```
1  #include <stdio.h>
2  #include <stdlib.h>
3  /** 1 - POINTER ASSIGNMENT **/
4  /** WE ACCESS POINTER **/
5  int main()
6  {
7      int a=10,b=5,*p,*q;
8      p=&a;
9      q=p;
10     printf("Value of a:%d\n",a);
11     printf("Value of a:%d\n",*p);
12     printf("Value of a:%d\n",*q);
13     getch();
14 }
15
```

"D:\1. C NOTEBOOK\
Value of a:10
Value of a:10
Value of a:10

CODE 2:

```
2  #include <stdlib.h>
3  /** 2 - POINTER ASSIGNMENT **/
4  /** WE ACCESS VALUES **/
5  int main()
6  {
7      int a=10,b=5,*p,*q;
8      p=&a;
9      *q=*p; //Error, *q is only declared, *q is not initialized with
10     //So we get wrong output
11
12     printf("Value of a:%d\n",a);
13     printf("Value of a:%d\n",*p);
14     printf("Value of a:%d\n",*q);
15     getch();
16 }
17
```

Logs & others		
Code::Blocks X Search results X Cccc X Build log X Build messages X CppCheck/Vera++ X		
File	Line	Message
D:\1. C NO...	15	warning: implicit declaration of function 'getch'; did you mean 'g...
D:\1. C NO...	7	warning: unused variable 'b' [-Wunused-variable]
D:\1. C NO...	9	warning: 'q' is used uninitialized in this function [-Wuninitialized]
=== Build finished: 0 error(s), 3 warning(s) (0 minute(s), 0 secon...		

CODE 3:

```
1  #include <stdio.h>
2  #include <stdlib.h>
3  /** 3 - POINTER ASSIGNMENT **/
4  /** WE ACCESS VALUES **/
5  int main()
6  {
7      int a=10,b=5,*p,*q;
8      p=&a;
9      q=&b;
10     *q=*p;
11     printf("Value of a:%d\n",a);
12     printf("Value of a:%d\n",b);
13     printf("Value of a:%d\n",*p);
14     printf("Value of a:%d\n",*q);
15     getch();
16 }
```

Symbols Resources

"D:\1. C NOTEBOOK\C LANG

```
Value of a:10
Value of a:10
Value of a:10
Value of a:10
```