Aim:

Write a program to [swap] two values by using **call by address** method.

At the time of execution, the program should print the message on the console as:

```
Enter two integer values :
```

For example, if the user gives the **input** as:

```
Enter two integer values : 12 13
```

then the program should **print** the result as:

```
Before swapping in main : a = 12 b = 13
After swapping in swap : *p = 13 *q = 12
After swapping in main : a = 13 b = 12
```

Note: Write the function **swap()** in [Program1002a.c] and do use the **printf()** function with a **newline** character ([\n]).

Source Code:

Program1002.c

```c
#include <stdio.h>
#include "Program1002a.c"
void main() {
    int a, b;
    printf("Enter two integer values : ");
    scanf("%d %d", &a, &b);
    printf("Before swapping in main : a = %d b = %d\n", a, b);
    swap(&a, &b);
    printf("After swapping in main : a = %d b = %d\n", a, b);
}
```

Program1002a.c

```c
void swap(int*p,int*q);
void swap(int *p,int*q)
{
    int temp;
    temp=*p;
    *p=*q;
    *q=temp;
    printf("After swapping in swap : *p = %d *q = %d\n",*p,*q);
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter two integer values : 121 131
Before swapping in main : a = 121 b = 131
After swapping in swap : *p = 131 *q = 121
After swapping in main : a = 131 b = 121

Test Case - 2
User Output
Enter two integer values : 555 999
Before swapping in main : a = 555 b = 999
After swapping in swap : *p = 999 *q = 555
After swapping in main : a = 999 b = 555

Test Case - 3
User Output
Enter two integer values : 1001 101
Before swapping in main : a = 1001 b = 101
After swapping in swap : *p = 101 *q = 1001
After swapping in main : a = 101 b = 1001

Test Case - 4
User Output
Enter two integer values : 9999 2999
Before swapping in main : a = 9999 b = 2999
After swapping in swap : *p = 2999 *q = 9999
After swapping in main : a = 2999 b = 9999

Test Case - 5
User Output
Enter two integer values : 10101 11010
Before swapping in main : a = 10101 b = 11010
After swapping in swap : *p = 11010 *q = 10101
After swapping in main : a = 11010 b = 10101