PAGING TECHNIQUE FOR MEMORY MANGEMENT.

AIM:

TO WRITE A GIVEN PROGRAM FOR PAGING TECHNIQUE FOR MEMORY MANGEMENT USING C LANGUAGE.

Paging is a storage mechanism that allows OS to retrieve processes from the secondary storage into the main memory in the form of pages.

The main memory is divided into small fixed-size blocks of physical memory, which is called frames.

The size of a frame should be kept the same as that of a page to have maximum utilization of the main memory and to avoid external fragmentation.

Paging is used for faster access to data, and it is a logical concept.

ALGORITHM:

Write a C Program to implement Paging Technique for Memory management?

Sample Input:

4 (No.of Pages in memory)

10 (page size)

10 (No.of frames)

2 (page 1)

4 (page 2)

6 (page 3)

5 (page 4)

1 (page no.)

100 (offset)

Expected output:

4,100 (page no. , offest)

For example:

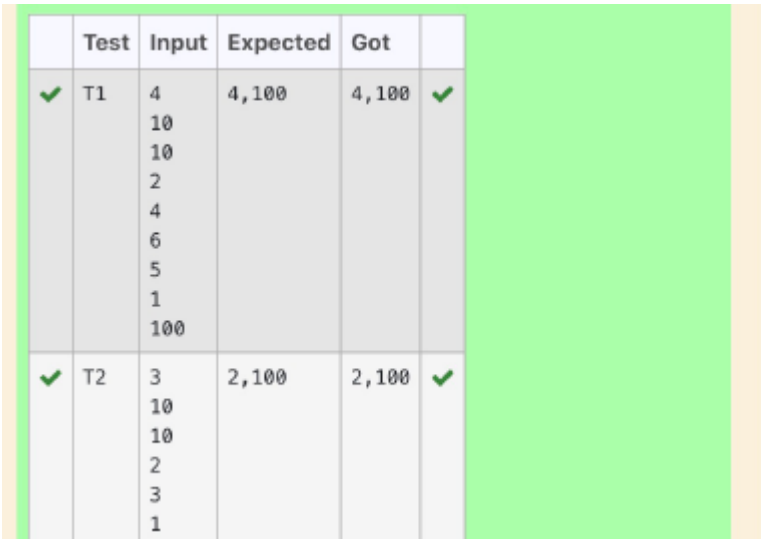
Test	Input	Result
T1	4 10 10 2 4 6 5 1 100	4,100

PROGRAM:

```
#include<stdio.h>
#define MAX 50
int main()
{
   int page[MAX],i,n,f,ps,off,pno;
   int choice=0;
   printf("\nEnter the no of pages in memory:");
   scanf("%d",&n);
   printf("\nEnter page size:");
   scanf("%d",&ps);
   printf("\nEnter no of frames:");
   scanf("%d",&f);
   for(i=0;i<n;i++)
   page[i]=-1;
   printf("\nEnter the page table\n");
   printf("(Enter frame no as -1 if that page is not present in any
frame)\n\n");
   printf("\npageno\tframeo\n------\t------");
```

```
    for(i=0;i<n;i++)
    {
        printf("\n\n%d\t\t",i);
        scanf("%d",&page[i]);
    }
    do
    {
        printf("\n\nEnter the logical address(i.e,page no & offset):");
        scanf("%d%d",&pno,&off);
        if(page[pno]==-1)
        printf("\n\nThe required page is not avaiable in any of frames");
        else
        printf("\n\nPhysical address(i.e,frame no &
offset):%d,%d",page[pno],off);
        printf("\nDo you want to continue(1/0)?:");
        scanf("%d",&choice);
    }
    while(choice==1);
    return 1;
}
```

OUTPUT:



	Test	Input	Expected	Got	
✔	T1	4 10 10 2 4 6 5 1 100	4,100	4,100	✔
✔	T2	3 10 10 2 3 1	2,100	2,100	✔

RESULT:

GIVEN PROGRAM FOR PAGING TECHNIQUE FOR MEMORY MANGEMENT USING C LANGUAGE WAS EXECUTED SUCCESSFULLY.