EX NO: 9	**PAGING TECHNIQUE OF MEMORY MANAGEMENT**
DATE:	

AIM:

To implement the Memory management policy- Paging.

ALGORITHM:

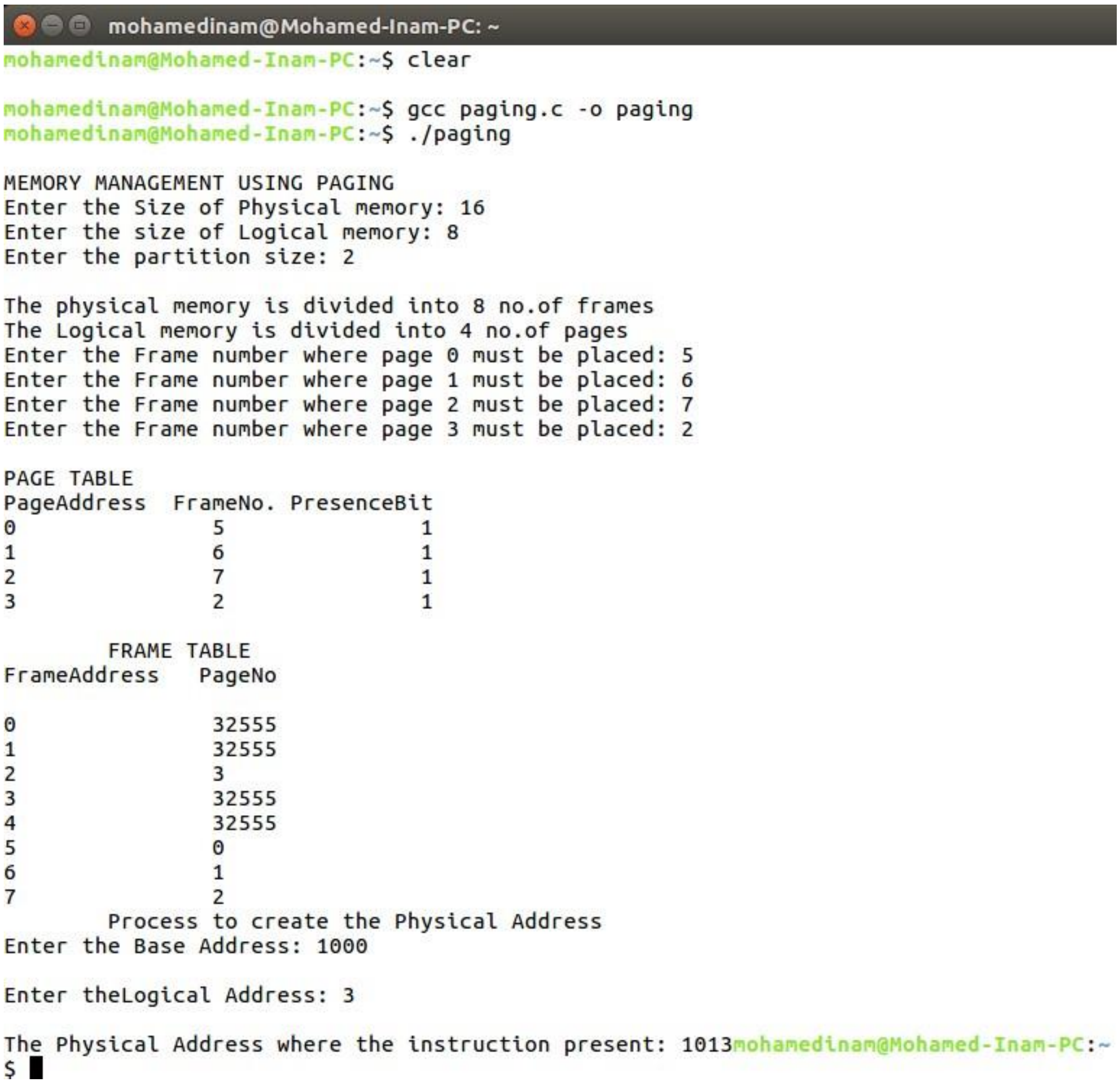
Step 1: Read all the necessary input from the keyboard.
Step 2: Pages - Logical memory is broken into fixed - sized blocks.
Step 3: Frames – Physical memory is broken into fixed – sized blocks.
Step 4: Calculate the physical address using the following
Physical address = (Frame number * Frame size) + offset Step
5: Display the physical address.
Step 6: Stop the process.

PROGRAM:

```
#include  <stdio.h>
#include <conio.h>
struct pstruct
{
 int fno;  int
pbit;
}ptable[10];

int pmsize,lmsize,psize,frame,page,ftable[20],frameno;

void info()
{
      printf("\n\nMEMORY MANAGEMENT USING PAGING\n\n");
      printf("\n\nEnter the Size of Physical memory: ");
      scanf("%d",&pmsize);
      printf("\n\nEnter the size of Logical memory: ");
      scanf("%d",&lmsize);
      printf("\n\nEnter the partition size: ");
      scanf("%d",&psize);
      frame = (int) pmsize/psize;
      page = (int) lmsize/psize;
      printf("\nThe physical memory is divided into %d no.of frames\n",frame);
      printf("\nThe Logical memory is divided into %d no.of pages",page);
}
void assign()
{     int
i;
      for (i=0;i<page;i++)
      {
 ptable[i].fno = -1;  ptable[i].pbit= -
1;
      }

      for(i=0; i<frame;i++)
                  ftable[i] = 32555;
      for (i=0;i<page;i++)
      {
      printf("\n\nEnter the Frame number where page %d must be placed: ",i);
                  scanf("%d",&frameno);
      ftable[frameno] = i;
                  if(ptable[i].pbit == -1)
                  {
                              ptable[i].fno = frameno;
      ptable[i].pbit = 1;
                  }
      }
      getch();
      printf("\n\nPAGE TABLE\n\n");
 printf("PageAddress  FrameNo. PresenceBit\n\n");  for
(i=0;i<page;i++)
                printf("%d\t\t%d\t\t%d\n",i,ptable[i].fno,ptable[i].pbit);
     printf("\n\n\n\tFRAME TABLE\n\n");
     printf("FrameAddress   PageNo\n\n");
     for(i=0;i<frame;i++)
                printf("%d\t\t%d\n",i,ftable[i]);
}

void cphyaddr()
{
     int laddr,paddr,disp,phyaddr,baddr;
     getch();
     printf("\n\n\n\tProcess to create the Physical Address\n\n");
     printf("\nEnter the Base Address: ");
     scanf("%d",&baddr);
     printf("\nEnter theLogical Address: ");
     scanf("%d",&laddr);
     paddr = laddr / psize;
     disp = laddr % psize;
if(ptable[paddr].pbit == 1 )
                phyaddr = baddr + (ptable[paddr].fno*psize) + disp;
     printf("\nThe Physical Address where the instruction present: %d",phyaddr);
} void
main()
{    clrscr();
     info();
     assign();
```

```
      cphyaddr()
;
      getch();
}
```

OUTPUT:



```
mohamedinam@Mohamed-Inam-PC:~$ clear

mohamedinam@Mohamed-Inam-PC:~$ gcc paging.c -o paging
mohamedinam@Mohamed-Inam-PC:~$ ./paging

MEMORY MANAGEMENT USING PAGING
Enter the Size of Physical memory: 16
Enter the size of Logical memory: 8
Enter the partition size: 2

The physical memory is divided into 8 no.of frames
The Logical memory is divided into 4 no.of pages
Enter the Frame number where page 0 must be placed: 5
Enter the Frame number where page 1 must be placed: 6
Enter the Frame number where page 2 must be placed: 7
Enter the Frame number where page 3 must be placed: 2

PAGE TABLE
PageAddress  FrameNo. PresenceBit
0               5               1
1               6               1
2               7               1
3               2               1

        FRAME TABLE
FrameAddress   PageNo

0               32555
1               32555
2               3
3               32555
4               32555
5               0
6               1
7               2
        Process to create the Physical Address
Enter the Base Address: 1000

Enter theLogical Address: 3

The Physical Address where the instruction present: 1013mohamedinam@Mohamed-Inam-PC:~
$ 
```

RESULT:

Thus the Memory management policy- Paging isimplemented successfully.