MAWLANA BHASHANI SCIENCE AND TECHNOLOGY UNIVERSITY

Santosh,Tangail-1902

LAB REPORT

Department of : Information & Communication Technology

Lab Report No : 11

Lab Report On : **Implementation of FIFO page replacement algorithm**

Course Title : Operating Systems Lab

Course Code : ICT - 3110

Submitted by,

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MBSTU

Lab Report No: **11**

Lab Report Name: **Implementation of FIFO page replacement algorithm .**

Objectives:

i. What is FIFO page replacement algorithm.
ii. How to implementation

Theory:

This is the simplest page replacement algorithm. In a page replacement algorithm we decide when a page replacement occures then which frames are to be replaced. For evaluating an algorithm we take a particular string of memory references ,called reference string.

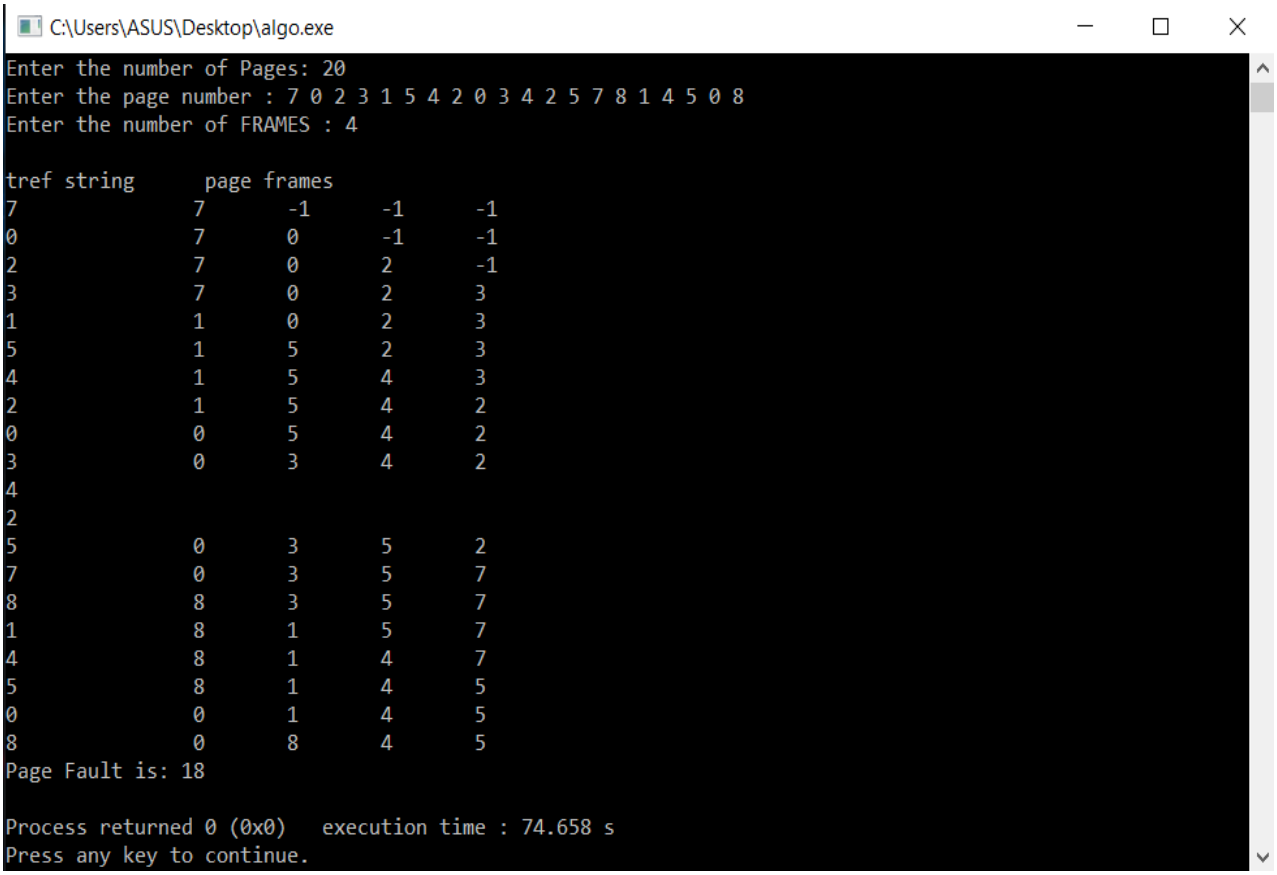
In FIFO page replacement algorithm- for each page we track the time when it was brought into the memory and when any replacement request comes then oldest page is chosen. If we choose a queue to hold all pages in memory then its more easy to understand and implement rather than tracking time of all pages.

Corresponding Code:

```
#include<stdio.h>

int main()

{

   int i,j,n,a[50],frame[10],no,k,avail,count=0;

   printf("Enter the number of Pages: ");

   scanf("%d",&n);

   printf("Enter the page number : ");

   for(i=1; i<=n; i++)

      scanf("%d",&a[i]);

   printf("Enter the number of FRAMES : ");

   scanf("%d",&no);
```

```
    for(i=0; i<no; i++)
       frame[i]= -1;
    j=0;
    printf("\n");
    printf("tref string\t page frames\n");

    for(i=1; i<=n; i++)
    {
       printf("%d\t\t",a[i]);
       avail=0;
       for(k=0; k<no; k++)
            if(frame[k]==a[i])
              avail=1;
       if (avail==0)
       {
          frame[j]=a[i];
          j=(j+1)%no;
          count++;
          for(k=0; k<no; k++)
             printf("%d\t",frame[k]);
       }
       printf("\n");
    }
    printf("Page Fault is: %d",count);
    printf("\n");
    return 0;
}
```

Output:



Discussion:

This lab helps to FIFO page replacement algorithm. We have implemented this algorithm using C language. Program worked fine and result was correct.