



Mawlana Bhashani Science and Technology University

Lab-Report

Lab Report No: 11

Lab Report Name: Implementation of FIFO page replacement Algorithm.

Course code: ICT-3110

Course title: Operating System Lab

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Experiment Name: Implementation of FIFO page replacement Algorithm.

Question-01:

What is FIFO page replacement algorithm?

Answer:

First in first out (FIFO) is the simplest page replacement algorithm. In this algorithm, a queue is maintained. The page which is assigned the frame first will be replaced first. The operating system keeps track of all pages in the memory in a queue, the oldest page is in the front of the queue. When a page needs to be replaced, the page in the front of the queue is selected for removal.

Question-02:

How to implement in C?

Answer:

```
#include<stdio.h>

int main() {

    int i,j,n,a[45],f[30],no,k,av,count=0;

    printf("\n ENTER THE NUMBER OF PAGES: ");
    scanf("%d",&n);

    printf("\n ENTER THE PAGE NUMBER : ");    for(i=1;
    i<=n; i++)    scanf("%d",&a[i]);

    printf("\n ENTER THE NUMBER OF FRAMES :");
    scanf("%d",&no);    for(i=0; i<no; i++)    f[i]= -1;    j=0;

    printf("\tref string\t page frames\n");    for(i=1;
    i<=n; i++)

    {        printf("%d\t\t",a[i]);
    av=0;
```

```

    for(k=0; k<no; k++)
    if(f[k]==a[i])

        av=1;

        if (av==0)

            {          f[j]=a[i];

                j=(j+1)%no;

                count++;

            for(k=0; k<no; k++)
            printf("%d\t",f[k]);

                }    printf("\n");

        }

    printf("Page Fault Is %d",count);    return 0;

```

Output:

```

C:\Users\my\Documents\Untitled1.exe

ENTER THE NUMBER OF PAGES: 4

ENTER THE PAGE NUMBER : 1 2 3 4 5

ENTER THE NUMBER OF FRAMES : 4
ref string    page frames
1             1      -1      -1      -1      -1
2             1       2      -1      -1      -1
3             1       2       3      -1      -1
4             1       2       3       4      -1
Page Fault Is 4
Process returned 0 (0x0)   execution time : 29.797 s
Press any key to continue.

```