



Mawlana Bhashani Science and Technology University

Lab-Report

Lab Report No: 11

Lab Report Name: Implementation of FIFO page replacement Algorithm

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Submitted By

Name: Ali Ashadullah Arif
ID:IT-18031
3rd Year 1st Semester
Session: 2017-2018
Dept. of ICT
MBSTU.

Submitted To

Nazrul Islam
Assistant Professor
Dept. of ICT
MBSTU.

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Name of the Lab Report: Implementation of FIFO page replacement Algorithm

Objective: FIFO page replacement algorithm Definition & executable code in c are followed.

1. What is FIFO page replacement algorithm?

Answer: This is the simplest page replacement algorithm. In this algorithm, 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 page in the front of the queue is selected for removal

2. How to implemented in C? Answer:

Source Code:

```
#include<stdio.h>

int main()
{
    int i,j,n,a[50],frame[10],no,k,avail,count=0;
    printf("\nENTER THE NUMBER OF PAGES:\n");
    scanf("%d",&n);
    printf("\nENTER THE PAGE NUMBER :\n");
    for(i=1; i<=n; i++)
        scanf("%d",&a[i]);
    printf("\nENTER THE NUMBER OF FRAMES :");
    scanf("%d",&no);
    for(i=0; i<no; i++)
        frame[i]= -1;
    j=0;
    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\n\n",count);
return 0;
}

```

Output:

```

/home/arif/Documents/FIFO
ENTER THE NUMBER OF PAGES:
7
ENTER THE PAGE NUMBER :
7 0 1 2 0 3 0 4 2 3 0 3 2 1 2
ENTER THE NUMBER OF FRAMES :  ref string
7          7          -1      -1      -1
0          7          0       -1      -1
1          7          0       1       -1
2          7          0       1       2
0
3          3          0       1       2
0
Page Fault Is 5

```

Conclusion: In this Lab report we learnt about FIFO page replacement algorithm. In this algorithm, the operating system keeps track of all pages in the memory in a queue, the oldest page in the front of the queue. When a page needs to be replaced page in front of the queue is selected for removal. For our better understand we have used C language.