

Lab-Report

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Name of the lab report : Implementation of FIFO page replacement Algorithm.

Q.1 What is FIFO page replacement algorithm?

Ans: 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

Q.2 How to implemented in C?

Ans:

```
#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:

```

ENTER THE NUMBER OF PAGES: 5

ENTER THE PAGE NUMBER : 1 2 4 0 1

ENTER THE NUMBER OF FRAMES : 4

```

	ref string	page frames		
1	1	-1	-1	-1
2	1	2	-1	-1
4	1	2	4	-1
0	1	2	4	0
1				

```

Page Fault Is 4
Process returned 0 (0x0)    execution time : 20.822 s
Press any key to continue.

```

Conclusion:

we have preserved a new concept for page replacement, which is based on block reading from secondary storage. The concept of block reading is obvious when there is frequent disc access. With the help of proposed methodology, we can find maximum pages in memory frames, which result in a high hit ratio. If we compare the proposed methodology with existing one, we found that the proposed methodology provides better results. As usual, the proposed method will provide better results when we allot more number of memory frames. Although the proposed algorithm shows better results, there is always a need for improvement. In future, the same methodology can be improved by applying some concept, which will reduce the number of page replacement. The proposed algorithm can be

improved by providing a hybrid mechanism, which uses existing algorithms .