**Simulate page replacement algorithms: a) FIFO**

**FIFO**

**Algorithm:**

Start.

1. Read the length of the reference string.
2. Read the reference string.
3. Read the number of frames.
4. Assign -1 to all the frames.
5. Take reference string value and compare it with all the values in the frame set if it matches then do nothing and continue with next reference string value.

If it does not match,

1. Replace the oldest value with the current reference string value.
2. Increment the page fault count variable.

If all the frames are over then display the page fault number occurred at the current reference string.

Repeat this step until the reference string is over.

1. Display the page fault count variable which indicates the total page fault.

Stop

**Code :**

#include<stdio.h>

#include<conio.h>

main()

{

int i, j, k, f, pf=0, count=0, rs[25], m[10], n;

clrscr();

printf("\n Enter the length of reference string -- ");

scanf("%d",&n);

printf("\n Enter the reference string -- ");

for(i=0;i<n;i++)

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

printf("\n Enter no. of frames -- ");

scanf("%d",&f);

for(i=0;i<f;i++) m[i]=-1;

printf("\n The Page Replacement Process is -- \n");

for(i=0;i<n;i++)

{

for(k=0;k<f;k++)

{

if(m[k]==rs[i])

break;

}

if(k==f)

{

m[count++]=rs[i];

pf++;

}

for(j=0;j<f;j++)

printf("\t%d",m[j]);

if(k==f)

printf("\tPF No. %d",pf);

printf("\n");

if(count==f) count=0;

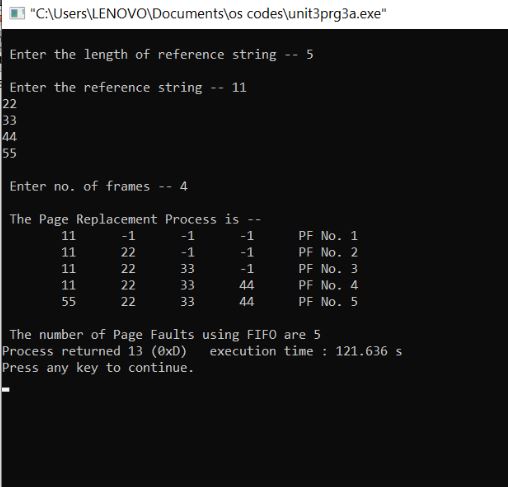
}

printf("\n The number of Page Faults using FIFO are %d",pf);

getch();

}

**Input/Output:**

****