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| **Ex.No:13.c** | **PAGE REPLACEMENT ALGORITHMS** |
| **LFU** |

# AIM:

To write C program to implement LFU page replacement algorithm.

# ALGORITHM:

Step 1: Start the process Step 2: Declare the size

Step 3: Get the number of pages to be inserted Step 4: Get the value

Step 5: Declare counter and stack

Step 6: Select the least frequently used page by counter value Step 7: Stack them according the selection.

Step 8: Display the values Step 9: Stop the process

# PROGRAM:

#include<stdio.h> int main()

{

int f,p;

int pages[50],frame[10],hit=0,count[50],time[50]; int i,j,page,flag,least,minTime,temp;

printf("Enter no of frames : "); scanf("%d",&f);

printf("Enter no of pages : "); scanf("%d",&p); for(i=0;i<f;i++)

{

frame[i]=-1;

}

for(i=0;i<50;i++)

{

count[i]=0;

}

printf("Enter page no : \n"); for(i=0;i<p;i++)

{

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

}

printf("\n"); for(i=0;i<p;i++)

{

count[pages[i]]++; time[pages[i]]=i; flag=1; least=frame[0]; for(j=0;j<f;j++)

{

if(frame[j]==-1 || frame[j]==pages[i])

{

if(frame[j]!=-1)

{

hit++;

}

flag=0; frame[j]=pages[i]; break;

}

if(count[least]>count[frame[j]])

{

least=frame[j];

}

}

if(flag)

{

minTime=50; for(j=0;j<f;j++)

{

if(count[frame[j]]==count[least] && time[frame[j]]<minTime)

{

temp=j; minTime=time[frame[j]];

}

}

count[frame[temp]]=0; frame[temp]=pages[i];

}

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

{

printf("%d ",frame[j]);

}

printf("\n");

}

printf("Page hit = %d",hit); return 0;

}