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| **Ex.No:13.b** | **PAGE REPLACEMENT ALGORITHMS** |
| **LRU** |

# AIM:

To write a c program to implement LRU 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 recently used page by counter value Step 7: Stack them according the selection.

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

# ROGRAM:

#include<stdio.h> main()

{

int q[20],p[50],c=0,c1,d,f,i,j,k=0,n,r,t,b[20],c2[20]; printf("Enter no of pages:");

scanf("%d",&n);

printf("Enter the reference string:"); for(i=0;i<n;i++) scanf("%d",&p[i]);

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

q[k]=p[k]; printf("\n\t%d\n",q[k]); c++;

k++;

for(i=1;i<n;i++)

{ c1=0;

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

{

if(p[i]!=q[j]) c1++;

}

if(c1==f)

{c++;

if(k<f)

{q[k]=p[i]; k++;

for(j=0;j<k;j++) printf("\t%d",q[j]); printf("\n");

}

else

{for(r=0;r<f;r++)

{c2[r]=0;

for(j=i-1;j<n;j--)

{if(q[r]!=p[j]) c2[r]++;

else break;

}}

for(r=0;r<f;r++) b[r]=c2[r]; for(r=0;r<f;r++)

{

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

{

if(b[r]<b[j])

{

t=b[r]; b[r]=b[j]; b[j]=t;

}}}

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

{

if(c2[r]==b[0])

q[r]=p[i]; printf("\t%d",q[r]);

}

printf("\n");

}}}

printf("\nThe no of page faults is %d",c);

}