OS LAB TEST-185001112

Code:

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

int n,fsize;

int refstr[100];

int page[50];

int hit=0;

int i,j,k;

int faultcount=0;

int hitcount=0;

void initialize()

{

faultcount=0;

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

page[i]=999;

}

void readinput()

{

printf("\nEnter length of page reference sequence:");

scanf("%d",&n);

printf("Enter the page reference sequence:");

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

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

printf("Enter no of frames:");

scanf("%d",&fsize);

}

int check(int data){

int hitind=-1;

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

{

if(page[k]==data){

hitind=k;

hitcount+=1;

break;

}

}

return hitind;

}

void frPrint()

{

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

{

if(page[k]!=999)

printf(" %d",page[k]);

}

}

void secondchance()

{

int used[50];

int repl=0;

initialize();

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

used[i]=0;

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

{

printf("\nFor %d:",refstr[i]);

int hitindex=check(refstr[i]);

if(hitindex!=-1)

{

printf("No page fault!");

if(used[hitindex]==0)

used[hitindex]=1;

}

else

{

faultcount++;

if(used[repl]==1)

{

do

{

used[repl]=0;

repl++;

if(repl==fsize)

repl=0;

}

while(used[repl]!=0);

}

if(used[repl]==0)

{

page[repl]=refstr[i];

used[repl]=1;

repl++;

}

frPrint();

}

if(repl==fsize)

repl=0;

}

float ratio;

ratio=(float)hitcount/(float)n;

printf("\nTotal no of page faults:%d",faultcount);

printf("\nTotal number of hits: %d",hitcount);

printf("\nHit Ratio: %f",ratio );

}

void main()

{

printf("Page Replacement Algorithms\n");

int choice;

while(1)

{

printf("\n1.Read\_Input\n2.Second Chance\n3.Exit\nEnter your Option : ");

scanf("%d",&choice);

if(choice == 3)

exit(0);

if(choice == 1)

readinput();

if(choice == 2)

secondchance();

}

}

Output:

