Mawlana Bhashani Science And Technology University

Lab-Report

Report No : 11

Course Code : ICT-3110

Course Title : Operating System Lab.

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Experiment No : 11

Experiment Name : Implementation of FIFO page replacement Algorithm.

FIFO page replacement Algorithm :

01.Round Robin is the preemptive process scheduling algorithm

02.Each process is provided a fix time to execute, it is called a quantum.

03.Once a process is execute for a given time period, it is preempted and other process executes for a given time period.

Algorithm:

→ Start the program

→ Read the number of frames

→ Read the number of pages

→ Read the page numbers

→ Initialize the values in frames to -1

→ Allocate the pages in to frames in First in first out order.

→ Display the number of page faults.

Code Implementation:

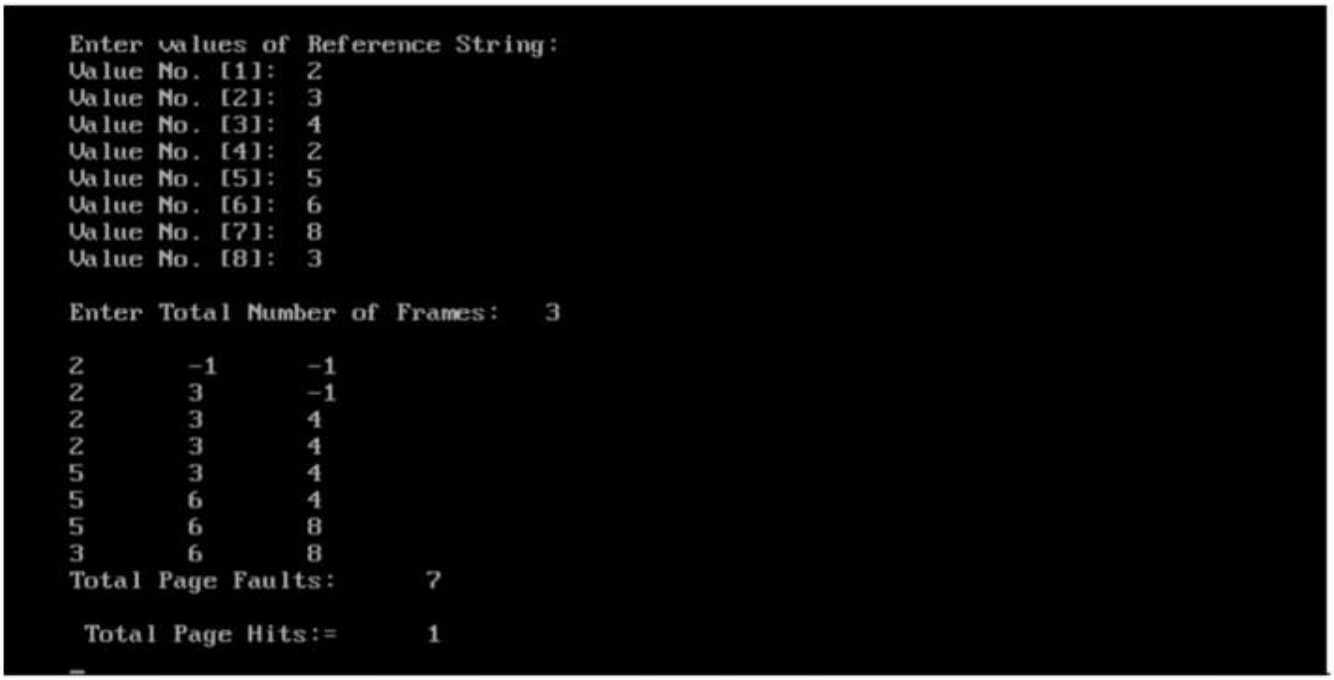
```
#include<stdio.h>

int main()

{

int reference_string[10],page_hits=0, page_faults = 0;
```

```
int temp[10],m, n, s, pages, frames;

clrscr();

printf("\n\n\t\t\t*******One Day Engineer*******\n\n");

printf("\nEnter Total Number of Pages:\t");

scanf("%d", &pages);

printf("\nEnter values of Reference String:\n");

for(m = 0; m < pages; m++)

{

printf("Value No. [%d]:\t", m + 1);

scanf("%d", &reference_string[m]);

}

printf("\nEnter Total Number of Frames:\t");

scanf("%d", &frames);

for(m = 0; m < frames; m++)

temp[m] = -1;

for(m = 0; m < pages; m++)

{

s = 0;


for(n = 0; n < frames; n++)
```

```
{
if(reference_string[m] == temp[n])
{
s++;
page_hits++;
page_faults--;
}
}
page_faults++;
if((page_faults <= frames) && (s == 0))
{
temp[m] = reference_string[m];
}
else if(s == 0)
{
temp[(page_faults - 1) % frames] = reference_string[m];
}
printf("\n");
for(n = 0; n < frames; n++)
printf("%d\t", temp[n]);
```

```
}

printf("\nTotal Page Faults:\t%d\n", page_faults);

printf("\n Total Page Hits:=\t%d\n",page_hits);

getch();

return 0;

}
```

Output:



Discussion:

This is the simplest replacement algorithm. In this algorithm, the operating system keeps track of all pages in the memory in a queue, the older page is in the front of the queue