

Ex. No.: 11 a

Date: 1.5.24

FIFO PAGE REPLACEMENT

Aim:

To find out the number of page faults that occur using First-in First-out (FIFO) page replacement technique.

Algorithm:

1. Declare the size with respect to page length
2. Check the need of replacement from the page to memory
3. Check the need of replacement from old page to new page in memory
4. Form a queue to hold all pages
5. Insert the page require memory into the queue
6. Check for bad replacement and page fault
7. Get the number of processes to be inserted
8. Display the values

Program Code:

```
def fifo():
    global a,n,m
    f = -1
    page_faults = 0
    page = []
    for i in range(m):
        page.append(-1)
    for i in range(n):
        for j in range(m):
            flag = 0
            if page[j] == -1:
                page[j] = a[i]
                page_faults += 1
            else:
                if page[j] != a[i]:
                    flag = 1
                    break
        if flag == 1:
            for k in range(j+1, m):
                if page[k] == -1:
                    page[k] = a[i]
                    page_faults += 1
                    break
    print("Page Faults:", page_faults)
```

```
if (page[j] == a[i]):  
    flag = 1  
    break  
if flag == 0:  
    f = (f + 1) % m  
    page[f] = a[i]  
    page_faults += 1  
    print "%d->%d" % (a[i]),  
    for j in range(m):  
        if page[j] != -1:  
            print page[j]  
        else:  
            print "-";  
    else:  
        print "%d->No Page  
Fault" % c[i]  
print "Total page faults : %d".  
65    % (page_faults)
```

Output:

Enter size of ret string : 20

Enter [1] : 7

Enter [2] : 0

Enter [3] : 1

Enter [4] : 2

Enter [5] : 0

Enter [6] : 3

Enter [7] : 0

Enter [8] : 4

Enter [9] : 2

Enter [10] : 3

Enter [11] : 0

Res

Enter [12] : 3

Enter [13] : 2

Enter [14] : 1

Enter [15] : 2

Enter [16] : 0

Enter [17] : 1

Enter [18] : 7

Enter [19] : 0

Enter [20] : 1

Q
8 C(15) 24
10 V

Result: The above commands are executed successfully