

SPOS Practical\Page Placement Strategy\FIFO.java

```

1  import java.util.*;
2
3  public class FIFO {
4
5      public static void main(String args[])
6      {
7          Scanner sc=new Scanner(System.in);
8          int noofpages,capacity,index=0;
9          int hit=0,fault=0;
10         double faultRatio,hitRatio;
11         System.out.print("Enter the number of pages you want to enter: ");
12         noofpages=sc.nextInt();
13         int pages[]=new int[noofpages];
14
15         for (int i=0;i<noofpages;i++) {
16             pages[i]=sc.nextInt();
17         }
18         System.out.print("Enter the capacity of frame: ");
19         capacity=sc.nextInt();
20         int frame[]=new int[capacity];
21         int table[][]=new int[noofpages][capacity];
22
23         for(int i=0;i<capacity;i++){
24             frame[i]=-1;
25         }
26         System.out.println("\n-----");
27         for(int i=0;i<noofpages;i++){
28             int search=-1;
29             for(int j = 0; j < capacity; j++)
30             {
31                 if(frame[j] == pages[i])
32                 {
33                     search = j;
34                     hit++;
35                     System.out.printf("%4s","H");
36                     break;
37                 }
38             }
39             if(search == -1)
40             {
41                 frame[index] = pages[i];
42                 fault++;
43                 System.out.printf("%4s","F");
44                 index++;
45                 if(index == capacity){
46                     index = 0;
47                 }
48             }
49             System.arraycopy(frame, 0, table[i], 0, capacity);
50         }
51         System.out.println("\n-----");
52         for (int i = 0; i < capacity; i++) {

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```
53         for (int j = 0; j < noofpages; j++)
54             System.out.printf("%3d ", table[j][i]);
55         System.out.println();
56     }
57
58     System.out.println("-----
-----");
59     faultRatio=((double)fault/noofpages)*100;
60     hitRatio=((double)hit/noofpages)*100;
61     System.out.println("Page Fault: "+fault+"\nPage Hit: "+hit);
62     System.out.printf("Hit Ratio:%.2f \nFault Ratio:%.2f ",hitRatio,faultRatio);
63 }
64
65 }
```