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package ass7;
import java.util.Scanner;

public class ass7 {

    public static void main(String args[]) {
        Scanner sc = new Scanner(System.in);
        int noofpages, capacity, index = 0;
        int hit = 0, fault = 0;
        double faultRatio, hitRatio;
        System.out.print("Enter the number of pages you want to enter: ");
        noofpages = sc.nextInt();
        int pages[] = new int[noofpages];

        for (int i = 0; i < noofpages; i++) {
            pages[i] = sc.nextInt();
        }
        System.out.print("Enter the capacity of frame: ");
        capacity = sc.nextInt();
        int frame[] = new int[capacity];
        int table[][] = new int[noofpages][capacity];

        for (int i = 0; i < capacity; i++) {
            frame[i] = -1;
        }
        System.out.println("\n-----");
        for (int i = 0; i < noofpages; i++) {
            int search = -1;
            for (int j = 0; j < capacity; j++) {
                if (frame[j] == pages[i]) {
                    search = j;
                    hit++;
                    System.out.printf("%4s", "H");
                    break;
                }
            }
            if (search == -1) {
                frame[index] = pages[i];
                fault++;
                System.out.printf("%4s", "F");
                index++;
                if (index == capacity) {
                    index = 0;
                }
            }
            System.arraycopy(frame, 0, table[i], 0, capacity);
        }
        System.out.println("\n-----");
        for (int i = 0; i < capacity; i++) {
            for (int j = 0; j < noofpages; j++)
                System.out.printf("%3d ", table[j][i]);
            System.out.println();
        }
    }
}

```

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System.out.println("-----");  
faultRatio = ((double) fault / noofpages) * 100;  
hitRatio = ((double) hit / noofpages) * 100;  
System.out.println("Page Fault: " + fault + "\nPage Hit: " + hit);  
System.out.printf("Hit Ratio: %.2f \nFault Ratio: %.2f ", hitRatio, faultRatio);  
sc.close();  
}  
  
}
```