FIFO REPLACEMENT

```
import java.util.*;

public class FIFOPageReplacement {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.print("Enter the number of frames: ");
        int f = sc.nextInt();

        System.out.print("Enter the number of page references: ");
        int n = sc.nextInt();

        System.out.println("Enter the page reference sequence (space separated): ");
        int[] refs = new int[n];
        for (int i = 0; i < n; i++) {
            refs[i] = sc.nextInt();
        }

        List<Integer> frames = new ArrayList<>(); // FIFO order: front = oldest
        int hits = 0, faults = 0;

        for (int x : refs) {
            boolean hit = false;

            // Check if page already in frames
            for (int v : frames) {
                if (v == x) {
                    hit = true;
                    break;
                }
```

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    }

    if (hit) {
        hits++;
    } else {
        faults++;
        if (frames.size() == f) {
            // Remove the oldest page (FIFO)
            frames.remove(0);
        }
        frames.add(x); // Add new page
    }

    // Display current frame state
    System.out.print("Frames: ");
    for (int v : frames) {
        System.out.print(v + " ");
    }
    System.out.println();
}

// Results
System.out.println("\n===== FIFO Page Replacement Result =====");
System.out.println("Total Page Hits:    " + hits);
System.out.println("Total Page Faults:  " + faults);

double hitRatio = (hits * 100.0) / n;
double faultRatio = (faults * 100.0) / n;

System.out.printf("Hit Ratio:   %.2f%%\n", hitRatio);
System.out.printf("Fault Ratio: %.2f%%\n", faultRatio);
```

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        sc.close();
    }
}
```