```
//FIFO
import java.io.*;
public class Fifo {
   public static void main(String[] args) throws IOException
   {
      BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
      int frames, pointer = 0, hit = 0, fault = 0,ref_len;
      int buffer[];
      int reference[];
      int mem_layout[][];

      System.out.println("Please enter the number of Frames: ");
      frames = Integer.parseInt(br.readLine());

      System.out.println("Please enter the length of the Reference string: ");
      ref_len = Integer.parseInt(br.readLine());

      reference = new int[ref_len];
      mem_layout = new int[ref_len][frames];
      buffer = new int[frames];
      for(int j = 0; j < frames; j++)
            buffer[j] = -1;

      System.out.println("Please enter the reference string: ");
      for(int i = 0; i < ref_len; i++)
      {
         reference[i] = Integer.parseInt(br.readLine());
      }
      System.out.println();
      for(int i = 0; i < ref_len; i++)
      {
```

```
    int search = -1;
    for(int j = 0; j < frames; j++)
   {
     if(buffer[j] == reference[i])
     {
      search = j;
      hit++;
      break;
     }
   }
   if(search == -1)
   {
     buffer[pointer] = reference[i];
     fault++;
     pointer++;
     if(pointer == frames)
      pointer = 0;
   }
       for(int j = 0; j < frames; j++)
           mem_layout[i][j] = buffer[j];
   }
   for(int i = 0; i < frames; i++)
   {
       for(int j = 0; j < ref_len; j++)
           System.out.printf("%3d ",mem_layout[j][i]);
       System.out.println();
   }
   System.out.println("The number of Hits: " + hit);
   System.out.println("Hit Ratio: " + (float)((float)hit/ref_len));
   System.out.println("The number of Faults: " + fault);
}
```

}