Institute of Computer Technology
B. Tech Computer Science and Engineering
Subject: OOP (2CSE303)
PRACTICAL-24

AIM: - Rajiv was assigned a task to structure the data using a FIFO based Queue interface wherein he was asked to structure the programming subjects semester wise within the queue followed by retrieval of the head element of the queue. Remove the two heads of the queue and add an element as 'Semester 6: Pascal' into the queue. Display the overall list of elements present within the queue.
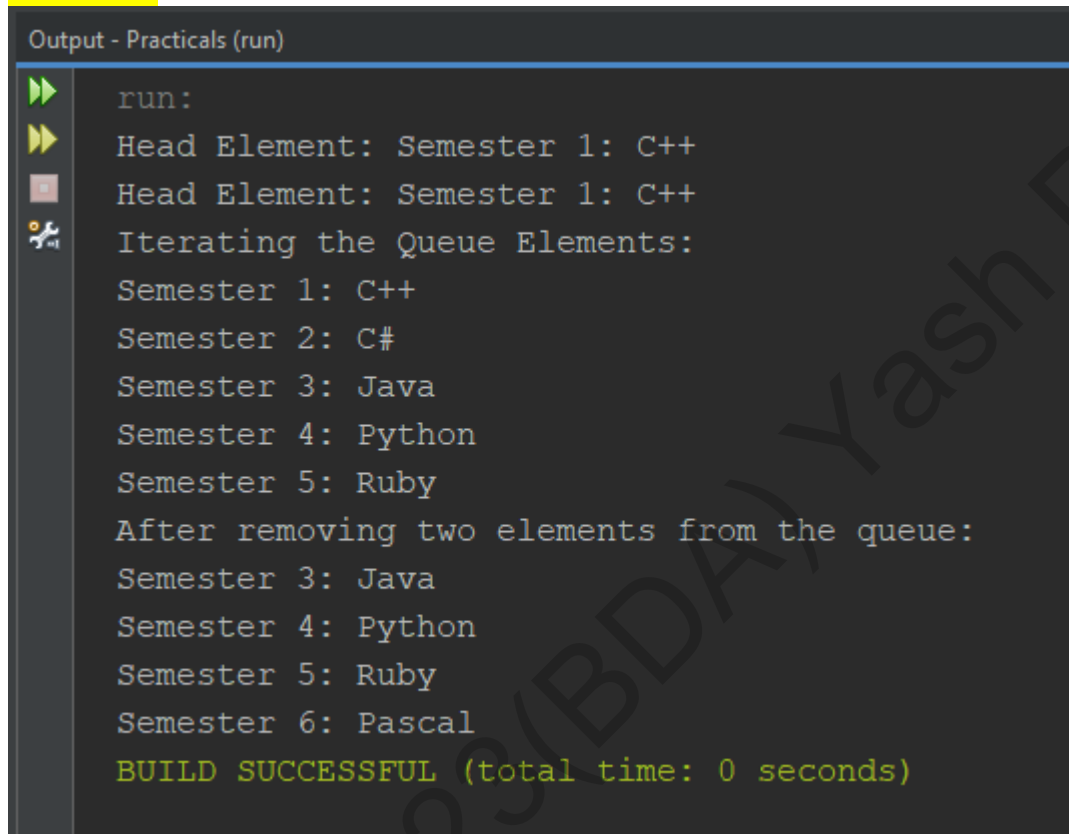
SOLUTION

```java
package practicals;
/**
 *
 * @author YashPrajapati
 */
import java.util.*;
class prac24{
    public static void main(String[] args) {
        Queue<String> q = new PriorityQueue<>();
        q.add("Semester 1: C++");
        q.add("Semester 2: C#");
        q.add("Semester 3: Java");
        q.add("Semester 4: Python");
        q.add("Semester 5: Ruby");

        System.out.println("Head Element: "+q.element());
        System.out.println("Head Element: "+q.peek());
        System.out.println("Iterating the Queue Elements: ");
        Iterator itr = q.iterator();
        while (itr.hasNext()) {
            System.out.println(itr.next());
        }
        q.remove();
        q.poll();
        q.offer("Semester 6: Pascal");
        System.out.println("After removing two elements from the queue:");
```

```
Iterator itr2 = q.iterator();
while (itr2.hasNext()) {
        System.out.println(itr2.next());
}
        }
}
```

OUTPUT

```
Output - Practicals (run)

  run:
  Head Element: Semester 1: C++
  Head Element: Semester 1: C++
  Iterating the Queue Elements:
  Semester 1: C++
  Semester 2: C#
  Semester 3: Java
  Semester 4: Python
  Semester 5: Ruby
  After removing two elements from the queue:
  Semester 3: Java
  Semester 4: Python
  Semester 5: Ruby
  Semester 6: Pascal
  BUILD SUCCESSFUL (total time: 0 seconds)
```