

Correzione verifica 01/04/2023 Sirico Davide

Es1) Corretto

Es2) Corretto

Es3) Corretto

Es4) Corretto

Es5) Corretto

Es6) Sbagliato

```
import java.util.Queue;
```

```
import java.util.LinkedList;
```

```
import java.io.*;
```

```
public class Main
```

```
{
```

```
    public static void main(String[] args)
```

```
    {
```

```
        try {
```

```
            FileReader fileReader = new
```

```
FileReader("src/numeri.txt");
```

```
            BufferedReader input = new
```

```
BufferedReader(fileReader);
```

```
            String currentNumber;
```

```
            if((currentNumber=input.readLine())==null)
```

```
            {
```

```
                System.out.println("File vuoto");
```

```
                return;
```

```
            }
```

```
            Queue<Integer> C1 = new LinkedList<>();
```

```
            int number = Integer.parseInt(currentNumber);
```

```
            C1.add(number);
```

```
            while((currentNumber=input.readLine())!=null)
```

```
            {
```

```
                number = Integer.parseInt(currentNumber);
```

```
                C1.add(number);
```

```
            }
```

```
            stampa(C1);
```

```
            elimina(C1);
```

```
            stampa(C1);
```

```
        } catch(IOException e)
```

```
        {
```

```
            System.out.println("Impossibile leggere il file");
```

```
        } catch(NumberFormatException e)
```

```
        {
```

```
            System.out.println("Inserire solo numeri nel file");
```

```
        }
```

```
    }
```

```
    public static void stampa(Queue<Integer> C)
```

```
    {
```

```
        System.out.println("C1" + C);
```

```
    }
```

```

/*
public static void elimina(Queue<Integer> C)
{
    Queue<Integer> temp1 = new LinkedList<>();
    Queue<Integer> temp2 = new LinkedList<>();
    Queue<Integer> temp3 = new LinkedList<>();
    Queue<Integer> ris = new LinkedList<>();

    C = reverse(C);
    while(!C.isEmpty())
    {
        int current = C.remove();
        temp1.add(current);
        temp2.add(current);
    }
    temp1 = reverse(temp1);

    while(!temp1.isEmpty())
    {
        int top = myPeek(temp1);
        boolean duplicato = false;
        int current = temp1.remove();
        while(!temp2.isEmpty())
        {
            temp2.remove();
        }
        temp3 = copy(temp2);
        while(!temp2.isEmpty())
        {
            if(top==current)
            {
                duplicato = true;
                temp1.remove();
            }
            current = temp2.remove();
        }
        if(!duplicato)
        {
            ris.add(current);
        }
    }
    System.out.println("temp1: "+temp1);
    System.out.println("temp2: "+temp2);
    System.out.println("temp3: "+temp3);
    System.out.println("ris: "+ris);
}

public static int myPeek(Queue<Integer> C)
{
    Queue<Integer> temp = new LinkedList<>();

    int top = C.remove();

```

```

        temp.add(top);
        while(!C.isEmpty())
        {
            temp.add(C.remove());
        }

        while(!temp.isEmpty())
        {
            C.add(temp.remove());
        }

        return top;
    }
}

public static Queue<Integer> reverse(Queue<Integer> Q)
{
    if(Q.isEmpty())
    {
        return Q;
    } else{
        int current = Q.remove();
        Q = reverse(Q);
        Q.add(current);
        return Q;
    }
}

public static Queue<Integer> copy(Queue<Integer> Q)
{
    Queue<Integer> temp1 = new LinkedList<>();
    Queue<Integer> temp2 = new LinkedList<>();
    while(!Q.isEmpty())
    {
        int current = Q.remove();
        temp1.add(current);
        temp2.add(current);
    }

    while(!temp2.isEmpty())
    {
        Q.add(temp2.remove());
    }
    return temp1;
}

*/

public static void elimina(Queue<Integer> C)
{
    Queue<Integer> temp = new LinkedList<>();
    while(!C.isEmpty())
    {
        int current = C.remove();
        temp.add(current);
    }
}

```

```

        while(!temp.isEmpty())
        {
            int current = temp.remove();
            if(!isDuplicate(C, current))
            {
                C.add(current);
            }
        }
    }
    public static boolean isDuplicate(Queue<Integer> C, int n)
    {
        Queue<Integer> temp = new LinkedList<>();
        boolean duplicate = false;
        while(!C.isEmpty())
        {
            int current = C.remove();
            if(current==n)
            {
                duplicate = true;
            }
            temp.add(current);
        }
        while(!temp.isEmpty())
        {
            C.add(temp.remove());
        }
        return duplicate;
    }
}

```