LEETCODE | 649 |

Dota 2 Senate

Input →   senate = "RD"   senate = "RDD"
          Output → "Radiant"   Output = "Dire"

Step1   Convert senate to charArray
      char[] senates = senate.toCharArray();

Step2   Suppose our charArray is

$$\overset{0}{} \quad \overset{1}{} \quad \overset{2}{} \quad \overset{3}{} \quad \overset{4}{} \quad \overset{5}{} \quad \overset{6}{}$$
     char[] senates = ['R', 'D', 'R', 'R', 'D', 'R', 'D']

Step3   We need to have a cyclic structure as last element
      can dismiss the 1st element

Step4   Create Two Queues 'R' & 'D' to store them with
      their indices

                                 →
      R Queue =   5   3   2   0

                                   →
      D Queue =   6   4   1

Step5   While loop with condition !RQueue.isEmpty() &&
                            DQueue.isEmpty().

Step6   Poll one element one by one in each Queues
         int r = RQueue.poll();
         int d = DQueue.poll();

Step 7   Whichever is lowest should cancel other one &
      get appended with index = larger of them +
                                   length of senates
                                      array

```
if (r < d) {

        RQueue.offer((Integer)(d + serabs.length));

    }
    else {

        DQueue.offer((Integer)(r + serabs.length));

    }
```

Step 8   If !RQueue.isEmpty()
                    then return "Radiant"

        Else
                return   "Dire"