Viva3Q1

Question

Modify your `Aran.isValid()` method to accept an input string consisting of alphabets and digits. Digits can be placed anywhere.

There are two types of characters: Main Characters (PTMQ) and Special Characters (BDGH).

Rules for Main Characters:

- P can only be followed by T.
- M can only be followed by M.
- Q can only be followed by none.

However, these rules on Main Characters can be broken due to the presence of Special Characters.

Rules for Special Characters:

- B may or may not exist before P.
- D may or may not exist before T.
- G may or may not exist after M.
- H may or may not exist after Q.

As long as the Special Characters follow the defined rules, the sequence of PTMQ could be random. For example:

```
- TP: false
- TBP: true
- BDT: true
- DTP: false
```

The input string should contain at least one main character, otherwise, it should return false."

Sample Input

```
public static void main(String[] args) {
    String[] testCases = new String[] {
            "PTM", "PTMMTP", "BPTMBPTM", "PT", "PTMQ", "PTMQH", "BPTMQH", "PTMQH",
"BPDTMGQH",
            "PTMQH", "PTMQH", "12PTHQGM", "12PTQHMG", "12PTMGQH",
"PTMQBPTMQBPTMQ", "DTBP123QHMG",
            "BTDP", "TP", "TBP", "BDT", "DTP", "ABCD", "D"
    };

    for (String input : testCases)
```

```
            System.out.printf("%-20s : %s\n", input, Aran.isValid(input));
    }
```

Sample Output

```
PTM                 : true
PTMMTP              : false
BPTMBPTM            : true
PT                  : true
PTMQ                : true
PTMQH               : true
BPTMQH              : true
PTMQH               : true
BPDTMGQH            : true
PTMQH               : true
PTMQH               : true
12PTHQGM            : false
12PTQHMG            : false
12PTMGQH            : true
PTMQBPTMQBPTMQ      : true
DTBP123QHMG         : true
BTDP                : false
TP                  : false
TBP                 : true
BDT                 : true
DTP                 : false
ABCD                : false
D                   : false
```