Panagram Checking in Java

You are given a string, you need to check if it is Pangram or not. A pangram is a sentence containing every letter in the English alphabet.

Examples:

Input: str = "The quick brown fox jumps over the lazy dog”
Output: true
Explanation: The statement contains all the characters from ‘a’ to ‘z’

Input: str = "abc xyz pqr"
Output: false
Explanation: This string does not contain all the characters from ‘a’ to ‘z’, as some letters are missing.

Approach:

To determine if a given string is a pangram:

- Create an Array:
  Use an array of size 26 to represent the 26 letters of the English alphabet. Each index corresponds to a letter, where index `0` represents `'a'`, index `1` represents `'b'`, and so on.
- Iterate Through the String:
  - Convert all characters in the string to their lowercase or uppercase equivalent (both cases are treated as the same).

    - For each character in the string, mark its corresponding index in the array as `true`. For example, the letter `'a'` (or `'A'`) marks index `0`, while `'z'` (or `'Z'`) marks index `25`.
- Check for Missing Letters:
  After processing all the characters in the string, check the array to see if any position remains `false`. If any position is `false`, the string is not a pangram.
- Return the Result:
  If all positions are marked `true`, return `true` as the string is a pangram. Otherwise, return `false`.

Here's the Java implementation of the above approach:

```
import java.util.*;

class GfG {

    static boolean isPanagram(String s)
    {
        int n = s.length();

        if(n < 26)
            return false;
```

```
        boolean visited[] = new boolean[26];

        for(int i=0; i<n; i++)
        {
            char x = s.charAt(i);

            if(x >= 'a' && x <='z')
            {
                visited[x-'a'] = true;
            }

            if(x >= 'A' && x <='Z')
            {
                visited[x-'A'] = true;
            }
        }

        for(int i =0; i<26; i++)
        {
            if(visited[i] == false)
                return false;
        }
```

```
        return true;
    }

    public static void main(String args[])
    {
        String s = "The quick brown fox jumps over the lazy dog";

        System.out.println(isPanagram(s));
    }
}
```

Output

```
true
```