

IQ 1.4 "Palindrome Permutation": Given a String, write a function to check if it is a permutation of a palindrome. A palindrome is a word or phrase that is the same forwards and backwards. A permutation is a rearrangement of letters.

Example:

Input: Tact.coa

Output: True ("taco cat", "atco cta", etc.)

Solution:

Pseudocode:

Step 1: Remove all spaces

Step 2: Create char array of ASCII values.
Iterate through String and update the frequency of each.

Step 3: Iterate through Char array to make sure that no more than 1 value has $\text{mod } 2 = 1$. (no more than 1 odd occurrence of a character. If this passes return true, if not return false.

Code:

```
public boolean isPalin (String s) {  
    int [] ch = new int [128];
```

```
    for (char c : s.toCharArray()) {
```

```
        ch [(int) c]++;  
    }
```

```
    // ignore spaces
```

```
    ch [' '] = 0;
```

```
    int count = 0;
```

```
    for (int i : ch) {
```

```
        if (i % 2 == 1)
```

```
            count++;
```

```
    }
```

```
    return (count < 2);
```

```
}
```