Given a file and assume that you can only read the file using a given method `read4`, implement a method to read *n* characters.

Method read4:

The API `read4` reads 4 consecutive characters from the file, then writes those characters into the buffer array `buf`.

The return value is the number of actual characters read.

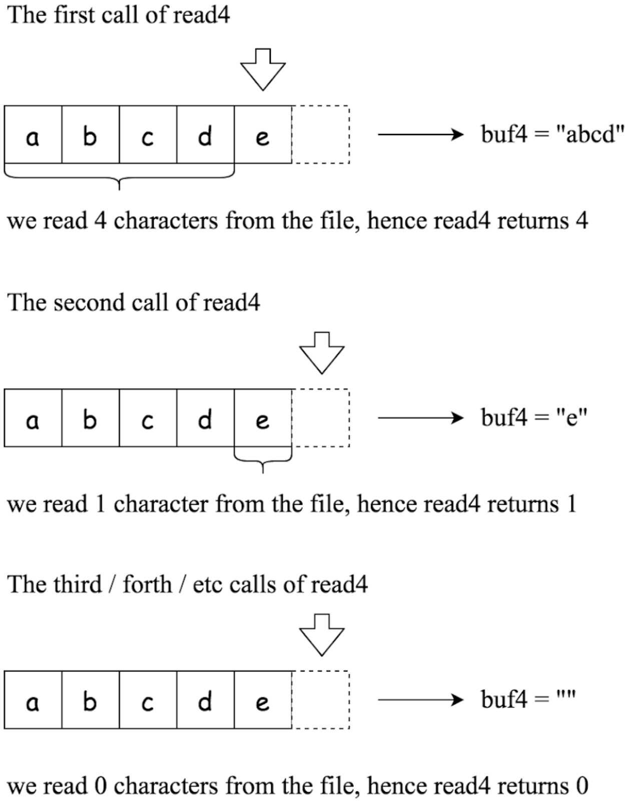
Note that `read4()` has its own file pointer, much like `FILE *fp` in C.

Definition of read4:

```
   Parameter:  char[] buf4
    Returns:    int

Note: buf4[] is destination not source, the results from read4 will be copied to buf4[]
```

Below is a high level example of how `read4` works:


The first call of read4
a
b
c
d
e
buf4 = "abcd"
we read 4 characters from the file, hence read4 returns 4
The second call of read4
a
b
c
d
e
buf4 = "e"
we read 1 character from the file, hence read4 returns 1
The third / forth / etc calls of read4
a
b
c
d
e
buf4 = ""
we read 0 characters from the file, hence read4 returns 0

```
File file("abcde"); // File is "abcde", initially file pointer (fp) points to 'a'
char[] buf4 = new char[4]; // Create buffer with enough space to store characters
read4(buf4); // read4 returns 4. Now buf = "abcd", fp points to 'e'
read4(buf4); // read4 returns 1. Now buf = "e", fp points to end of file
read4(buf4); // read4 returns 0. Now buf = "", fp points to end of file
```

Method read:

By using the `read4` method, implement the method `read` that reads *n* characters from the file and store it in the buffer array `buf`. Consider that you cannot manipulate the file directly.

```
The return value is the number of actual characters read.
Definition of read:
   Parameters: char[] buf, int n
    Returns:   int

Note: buf[] is destination not source, you will need to write the results to buf[]
```

```
Example 1:
Input: file = "abc", n = 4
Output: 3
Explanation: After calling your read method, buf should contain "abc". We read a total of 3
characters from the file, so return 3. Note that "abc" is the file's content, not buf. buf is
the destination buffer that you will have to write the results to.
```

```
Example 2:
Input: file = "abcde", n = 5
Output: 5
Explanation: After calling your read method, buf should contain "abcde". We read a total of 5
characters from the file, so return 5.
```

```
Example 3:
Input: file = "abcdABCD1234", n = 12
Output: 12
Explanation: After calling your read method, buf should contain "abcdABCD1234". We read a
total of 12 characters from the file, so return 12.
```

```
Example 4:
Input: file = "leetcode", n = 5
Output: 5
Explanation: After calling your read method, buf should contain "leetc". We read a total of 5
characters from the file, so return 5.
```

Note:

- Consider that you cannot manipulate the file directly, the file is only accesible for `read4` but not for `read`.
- The `read` function will only be called once for each test case.
- You may assume the destination buffer array, `buf`, is guaranteed to have enough space for storing *n* characters.