

One-Day Assignment 1 – algorithmic solution

T9 Spelling

One-Day Assignment 1 – Pseudocode (code-like)

Have an array *arr* mapping a character to its string form (eg. `arr['a'] = "2"`, `arr['b'] = "22"`, `arr[' '] = "0"`)

```
outputStr = ""
```

```
for curr_char in input_string:
```

```
    keypressStr = arr[curr_char]
```

```
    if (outputStr is not empty) && (last character of outputStr == first character of  
        keypressStr):
```

```
        outputStr = outputStr + " "
```

```
    outputStr = outputStr + keypressStr
```

```
print outputStr
```

One-Day Assignment 1 – Pseudocode (English Description)

Start off by using an array `arr` to map each character to a string with its associated keypresses (so `arr['a'] = "2"`, `arr['b'] = "22"`, `arr[' '] = "0"`).

We also have a string (which we call `outputStr`) that is initially empty.

Iterate through each character of the input, beginning from the front.

For each character, we get the string `keypressStr` representing its keypresses by accessing `arr[curr_char]`, where `curr_char` is the character we are currently on.

If the last letter of `outputStr` (if `outputStr` is not empty) is the same as the first letter of `keypressStr`, then we append a space to `outputStr`.

Regardless of the result of the above check, we will then append `keypressStr` to `outputStr`.

Once we have gone through all the characters in the input, print out `outputStr`.