1.You are developing a user registration system for a website. The username entered by the user must follow these rules:

It should contain only alphanumeric characters (a-z, A-Z, 0-9).
It should start with a letter (not a number or special character).
It should be at least 5 characters long and at most 15 characters long.

2.Implement a function that replaces all occurrences of "hte" with "the" and "recieve" with "receive" in a given text.

Example 1:

Input:I saw hte email and will recieve the package tomorrow.

Output:I saw the email and will receive the package tomorrow.

```c
#include <stdio.h>
#include <string.h>
#include <ctype.h>

int isValidUsername(const char *username) {
    int len = strlen(username);

        if (len < 5 || len > 15) {
        return 0;
    }

        if (!isalpha(username[0])) {
        return 0;
    }

     for (int i = 0; i < len; i++) {
        if (!isalnum(username[i])) {
            return 0;
        }
    }

    return 1; // Username is valid
}

void correctText(char *text) {
    char temp[1000];
 int i = 0, j = 0;

    while (text[i] != '\0') {
        // Replace "hte" with "the"
```

```c
        if (strncmp(&text[i], "hte", 3) == 0) {
            strcpy(&temp[j], "the");
            i += 3;
            j += 3;
        }
            else if (strncmp(&text[i], "recieve", 7) == 0) {
            strcpy(&temp[j], "receive");
            i += 7;
            j += 7;
        }
            else {
            temp[j] = text[i];
            i++;
            j++;
        }
    }

    temp[j] = '\0';
    strcpy(text, temp); }

int main() {
    char username[20];
    char text[1000];

    printf("Enter a username: ");
    scanf("%s", username);

    if (isValidUsername(username)) {
        printf("Username is valid.\n");
    } else {
        printf("Invalid username! It must be 5-15 characters long, start with a letter, and contain only
letters and numbers.\n");
    }

    getchar();
    printf("\nEnter a sentence to correct: ");
    fgets(text, sizeof(text), stdin);
    correctText(text);

    printf("Corrected text: %s\n", text);

    return 0;
}
```

Example 2:

Input:Please recieve hte message and confirm.

Output:Please receive the message and confirm.

```c
#include <stdio.h>
#include <string.h>

void correctText(char *text) {
    char temp[1000];    int i = 0, j = 0;

    while (text[i] != '\0') {

        if (strncmp(&text[i], "hte", 3) == 0) {
            strcpy(&temp[j], "the");
            i += 3;
            j += 3;
        }

        else if (strncmp(&text[i], "recieve", 7) == 0) {
            strcpy(&temp[j], "receive");
            i += 7;
            j += 7;
        }

        else {
            temp[j] = text[i];
            i++;
            j++;
        }
    }

    temp[j] = '\0';
    strcpy(text, temp);
}

int main() {
    char text[1000];


    printf("Enter a sentence to correct: ");
    fgets(text, sizeof(text), stdin);
        correctText(text);
```

```c
    printf("Corrected text: %s\n", text);

    return 0;
}
```