Practical-1

DEFINATION: String Validation Against Regular Expression

OBJECTIVE: To implement a program that validates a user-input string against the regular expression a*bb. The program should determine whether the input string is valid or invalid based on the defined pattern.

CODE:

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

int main(void) {
    char str[200];
    char ch;
    int index = 0;

    printf("Enter String: ");

    while (1) {
        ch = getchar();
        if (ch == '\n') {
            break;
        }
        str[index++] = ch;
    }
    str[index] = '\0';
```

```
    int i = 0;
    int length = strlen(str);
if (length<2){
    printf("\nInvalid String");
    return 0;
}
    if(str[i]!='a'){
        printf("\nInvalid String");
        return 0;
    }
    while (i < length && str[i] == 'a') {
       i++;
    }


    if (i < length && str[i] == 'b' && (i + 1 < length) && str[i + 1] == 'b' && (i +
2 == length)) {

printf("\nValid String");



    } else {
       printf("\nInvalid String");
    }

    return 0;
}
```

OUTPUT:

```
Enter String: aaaabb

Valid String
Process returned 0 (0x0)   execution time : 3.403 s
Press any key to continue.
```

```
Enter String: aab

Invalid String
Process returned 0 (0x0)   execution time : 1.551 s
Press any key to continue.
```