EXPERIMENT NO: 01

NAME: Kalyani Kiran Patil

ROLL NO: 3092

PROBLEM STATEMENT: Implement of the simple substitution technique named Caesar Cipher using C language.

Code:

```
#include <stdio.h>
#include<stdlib.h>
#include <string.h>
char* encrypt(char* message, int key) {
    char* encrypted = (char*)malloc(strlen(message) + 1);
    for (int i = 0; i < strlen(message); i++) {
        if (message[i] >= 'A' && message[i] <= 'Z') {
            encrypted[i] = (message[i] - 'A' + key) % 26 + 'A';
        } else if (message[i] >= 'a' && message[i] <= 'z') {
            encrypted[i] = (message[i] - 'a' + key) % 26 + 'a';
        } else {
            encrypted[i] = message[i];
        }
    }
    encrypted[strlen(message)] = '\0';
    return encrypted;
}
int main() {
    char message[100];
    printf("Enter the string: ");
    scanf("%s", message);
    int key;
    printf("Enter the key:");
    scanf("%d",&key);
    printf("Decrypted message: %s\n", message);
```

```
    char* encrypted = encrypt(message, key);
    printf("Encrypted message: %s\n", encrypted);
    return 0;
}
```

OUTPUT: