EX.NO: 1.a) ROLL.NO: 210701275

DATE:

Implement the substitution technique Caesar Cipher

AIM:

To encrypt and decrypt a user-provided message using the Caesar Cipher technique with a specified shift value, ensuring confidentiality of communication.

ALGORITHM:

1. Start with the main function which prompts the user to enter the message and the shift value.
2. Read the message and shift value entered by the user.
3. Call the Caesar Cipher function passing the message and the shift value.
4. In the Caesar Cipher function:
    - Iterate through each character of the message.
    - Check if the character is an alphabet letter.
    - If it is, determine if it is uppercase or lowercase.
    - Apply the Caesar Cipher encryption algorithm by shifting the letter by the specified amount.
5. Print the encrypted message.

PROGRAM:

```
#include <stdio.h>
#include<ctype.h>
void caesarCipher(char message[], int shift);

int main() {
   char message[100];
   int shift;
   printf("Enter the message to encrypt: ");
   scanf("%s", message);
   printf("Enter the shift value: ");
   scanf("%d", &shift);
   caesarCipher(message, shift);
   printf("Encrypted message: %s\n", message);
   return 0;
}

void caesarCipher(char message[], int shift) {
   int i;
```

```
    for (i = 0; message[i] != '\0'; ++i) {
        char ch = message[i];
        if (isalpha(ch)) {
            if (isupper(ch)) {
                message[i] = (ch + shift - 'A') % 26 + 'A';    }

            else {
                message[i] = (ch + shift - 'a') % 26 + 'a';
            }
        }

    }
}
```

OUTPUT:

```
hello
2
jgnnq
```

RESULT:

Thus the Caesar cipher technique has been successfully compiled and executed .