Roll No:210701303

EXP NO :1
DATE:

CAESAR CIPHER

AIM:

To implement encryption algorithm using Caesar Cipher technique.

ALGORITHM:

Step 1: Read the plaintext input from the user.
Step 2: Prompt the user to enter the encryption key (shift value).
Step 3: Iterate through each character in the plaintext input.
Step 4: For each alphabetic character, apply the Caesar Cipher encryption by shifting it by the specified key.
Step 5: Handle non-alphabetic characters such as spaces, punctuation, and numbers by leaving them unchanged.
Step 6: Display the encrypted ciphertext as the output to the user.

PROGRAM:

```
#include <stdio.h>
int main() {
   char text[500];
   int key;

   printf("Enter a message to encrypt: ");
   scanf("%s", text);

   printf("Enter the key: ");
   scanf("%d", &key);

   for (int i = 0; text[i] != '\0'; ++i) {
      char ch = text[i];

      if ('a' <= ch && ch <= 'z')
         ch = (ch - 'a' + key) % 26 + 'a';
      else if ('A' <= ch && ch <= 'Z')
         ch = (ch - 'A' + key) % 26 + 'A';
```

```
        else if ('0' <= ch && ch <= '9')
            ch = (ch - '0' + key) % 10 + '0';

        text[i] = ch;
    }

    printf("Encrypted message: %s", text);

    return 0;
}
```

OUTPUT:

```
Enter a message to encrypt: Varunesh
Enter the key :303
Encrypted message : Mrilevjy
```

RESULT: