

## EXP-8:-

### PROGRAM:

```
#include <stdio.h>
#include <string.h>
void generateCipher(char *keyword, char *cipher) {
    int used[26] = {0};
    int index = 0;
    for (int i = 0; i < strlen(keyword); i++) {
        char ch = keyword[i];
        if (ch >= 'A' && ch <= 'Z' && !used[ch - 'A']) {
            cipher[index++] = ch;
            used[ch - 'A'] = 1;
        }
    }
    for (char ch = 'A'; ch <= 'Z'; ch++) {
        if (!used[ch - 'A']) {
            cipher[index++] = ch;
        }
    }
    cipher[index] = '\0';
}
void encrypt(char *plaintext, char *cipher, char *encrypted) {
    for (int i = 0; plaintext[i] != '\0'; i++) {
        if (plaintext[i] >= 'A' && plaintext[i] <= 'Z') {
            encrypted[i] = cipher[plaintext[i] - 'A'];
        } else {
            encrypted[i] = plaintext[i];
        }
    }
    encrypted[strlen(plaintext)] = '\0';
}
int main() {
    char keyword[] = "CIPHER";
    char cipher[27];
    char plaintext[] = "HELLO WORLD";
    char encrypted[50];
    generateCipher(keyword, cipher);
    encrypt(plaintext, cipher, encrypted);
    printf("Cipher: %s\n", cipher);
    printf("Encrypted: %s\n", encrypted);
    return 0;
}
```

### OUTPUT:

#### Output

Cipher: CIPHERABDFGJKLMNOQRSTUVWXYZ

Encrypted: BEJJM WMQJH

=== Code Execution Successful ===