

COMPUTER NETWORKS LAB

EXPERIMENT- 7

Aim:- Implement data encryption and data decryption

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

```
int main()
```

```
{
```

```
    int i, x;
```

```
    char str[100];
```

```
    printf("\nPlease enter a string:\t");
```

```
    gets(str);
```

```
    printf("\nPlease choose following options:\n");
```

```
    printf("1 = Encrypt the string.\n");
```

```
    printf("2 = Decrypt the string.\n");
```

```
    scanf("%d", &x);
```

```
    //using switch case statements
```

```
    switch(x)
```

```
    {
```

```
    case 1:
```

```
        for(i = 0; (i < 100 && str[i] != '\0'); i++)
```

```
            str[i] = str[i] + 3; //the key for encryption is 3 that is added to ASCII value
```

```
        printf("\nEncrypted string: %s\n", str);
```

```
        break;
```

```
    case 2:
```

```
        for(i = 0; (i < 100 && str[i] != '\0'); i++)
```

```
            str[i] = str[i] - 3; //the key for encryption is 3 that is subtracted to ASCII value
```

```
        printf("\nDecrypted string: %s\n", str);
```

```
        break;
```

```
    default:
```

```
        printf("\nError\n");
```

```
    }
```

```
    return 0;
```

```
}
```

OUTPUT:-

Encryption

"C:\Users\ICT\Google Drive\c project\code\encrypt-decrypt.exe"

Please enter a string: hello

Please choose following options:

1 = Encrypt the string.

2 = Decrypt the string.

1

Encrypted string: khor

Process returned 0 (0x0) execution time : 8.564 s

Press any key to continue.

#Decryption

"C:\Users\ICT\Google Drive\c project\code\encrypt-decrypt.exe"

Please enter a string: khor

Please choose following options:

1 = Encrypt the string.

2 = Decrypt the string.

2

Decrypted string: hello

Process returned 0 (0x0) execution time : 4.288 s

Press any key to continue.

Explanation

In the above program, we have used simple logic for encrypting and decrypting a given string by simply adding and subtracting the particular key from ASCII value.