

Practical NO. 01

```
import java.util.Scanner;

public class Practical1 {

    private static final int SHIFT = 3;

    // Encrypt method
    public static String encrypt(String plainText) {
        StringBuilder cipherText = new StringBuilder();
        plainText = plainText.toUpperCase();

        for (char ch : plainText.toCharArray()) {
            if (ch >= 'A' && ch <= 'Z') {
                int p = ch - 'A';
                int c = (p + SHIFT) % 26;
                cipherText.append((char) ('A' + c));
            } else {
                cipherText.append(ch);
            }
        }
        return cipherText.toString();
    }

    // Decrypt method
    public static String decrypt(String cipherText) {
        StringBuilder plainText = new StringBuilder();
        cipherText = cipherText.toUpperCase();

        for (char ch : cipherText.toCharArray()) {
            if (ch >= 'A' && ch <= 'Z') {
                int c = ch - 'A';
                int p = (c - SHIFT) % 26;
                plainText.append((char) ('A' + p));
            } else {
                plainText.append(ch);
            }
        }
        return plainText.toString();
    }
}
```

```

        int p = (c - SHIFT + 26) % 26;
        plainText.append((char) ('A' + p));
    } else {
        plainText.append(ch);
    }
}

return plainText.toString();
}

// Main method
public static void main(String[] args) {
    Scanner sc = new Scanner(System.in);
    System.out.print("Enter Plain Text: ");
    String plainText = sc.nextLine();
    String encrypted = encrypt(plainText);
    String decrypted = decrypt(encrypted);
    System.out.println("\nPlaintext : " + plainText);
    System.out.println("Encrypted : " + encrypted);
    System.out.println("Decrypted : " + decrypted);
    sc.close();
}
}

```

OUTPUT:

Enter Plain Text: i am batch c

Plaintext : i am batch c

Encrypted : L DP EDWFK F

Decrypted : I AM BATCH C