

- **Program Code:**

```
import java.io.UnsupportedEncodingException;
import java.security.MessageDigest;
import java.security.NoSuchAlgorithmException;
import java.util.Arrays;
import java.util.Base64;

import javax.crypto.Cipher;
import javax.crypto.spec.SecretKeySpec;

public class AES {

    private static SecretKeySpec secretKey;
    private static byte[] key;

    public static void setKey(final String myKey) {
        MessageDigest sha = null;
        try {
            key = myKey.getBytes("UTF-8");
            sha = MessageDigest.getInstance("SHA-1");
            key = sha.digest(key);
            key = Arrays.copyOf(key, 16);
            secretKey = new SecretKeySpec(key, "AES");
        } catch (NoSuchAlgorithmException | UnsupportedEncodingException e) {
            e.printStackTrace();
        }
    }

    public static String encrypt(final String strToEncrypt, final String secret) {
        try {
```

```
        setKey(secret);
        Cipher cipher = Cipher.getInstance("AES/ECB/PKCS5Padding");
        cipher.init(Cipher.ENCRYPT_MODE, secretKey);
        return Base64.getEncoder()
            .encodeToString(cipher.doFinal(strToEncrypt.getBytes("UTF-8")));
    } catch (Exception e) {
        System.out.println("Error while encrypting: " + e.toString());
    }
    return null;
}

public static String decrypt(final String strToDecrypt, final String secret) {
    try {
        setKey(secret);
        Cipher cipher = Cipher.getInstance("AES/ECB/PKCS5PADDING");
        cipher.init(Cipher.DECRYPT_MODE, secretKey);
        return new String(cipher.doFinal(Base64.getDecoder()
            .decode(strToDecrypt)));
    } catch (Exception e) {
        System.out.println("Error while decrypting: " + e.toString());
    }
    return null;
}

public static void main(String[] args)
{
    final String secretKey = "ssshhhhhhhhhhh!!!!";

    String originalString = "pratikbangal";
    String encryptedString = AES.encrypt(originalString, secretKey);
```

```
String decryptedString = AES.decrypt(encryptedString, secretKey) ;
```

```
System.out.println(originalString);
```

```
System.out.println(encryptedString);
```

```
System.out.println(decryptedString);
```

```
}
```

```
}
```

- **Output:**

Output

Clear

```
java -cp /tmp/BRH62DBJQ0 AES  
pratikbangal  
Z8x0hXCW5xdwRn17SX1ZSQ==  
pratikbangal
```