Code :

```java
package DES2;
import javax.crypto.Cipher;
import javax.crypto.KeyGenerator;
import javax.crypto.SecretKey;
import java.util.Base64;

class DESExample {

    Cipher ecipher;
    Cipher dcipher;

    DESExample(SecretKey key) throws Exception {
        ecipher = Cipher.getInstance("DES");
        dcipher = Cipher.getInstance("DES");
        ecipher.init(Cipher.ENCRYPT_MODE, key);
        dcipher.init(Cipher.DECRYPT_MODE, key);
    }

    public String encrypt(String str) throws Exception {
        byte[] utf8 = str.getBytes("UTF8");
        byte[] enc = ecipher.doFinal(utf8);

        return Base64.getEncoder().encodeToString(enc);

    }

    public String decrypt(String str) throws Exception {

        byte[] dec = Base64.getDecoder().decode(str);

        byte[] utf8 = dcipher.doFinal(dec);
        return new String(utf8, "UTF8");
    }

    public static void main(String[] argv) throws Exception {
        final String secretText = "www.knowledgefactory.net";
        System.out.println("SecretText: " + secretText);
        SecretKey key = KeyGenerator.getInstance("DES").generateKey();
        DESExample encrypter = new DESExample(key);
        String encrypted = encrypter.encrypt(secretText);
        System.out.println("Encrypted Value: " + encrypted);
        String decrypted = encrypter.decrypt(encrypted);
        System.out.println("Decrypted: " + decrypted);

    }
```

}

Output :

SecretText: www.knowledgefactory.net
Encrypted Value: tnhhEOapU5xL6kNUA7lNhdo01rGoeHYt+4EORA63H+Y=
Decrypted: www.knowledgefactory.net