package rsa;

import java.io.\*;

import java.security.\*;

import javax.crypto.\*;

public class RSA {

public static void main(String[] args) throws IOException {

try {

// TODO Auto-generated method stub

System.out.println();

String plainText;

byte inData[], encrypt[], outData[];

BufferedReader br = new BufferedReader(new

InputStreamReader( System.in));

System.out.println("Enter Plaintext : ");

plainText = br.readLine();

KeyPairGenerator kpg = KeyPairGenerator.getInstance(");

kpg.initialize(512);

KeyPair kp = kpg.generateKeyPair();

PublicKey publicKey = kp.getPublic();

System.out.println("Public Key is: " + publicKey);

Cipher cipher= Cipher.getInstance("RSA");

cipher.init(Cipher.ENCRYPT\_, publicKey);

inData= plainText.getBytes(); encrypt = cipher.doFinal(inData);

System.out.println("Encrypted Plaintext is : " + encrypt);

PrivateKey privateKey = kp.getPrivate();

cipher.init(Cipher.DECRYPT\_, privateKey); System.

out.println("Private key:" + privateKey); outData = cipher.doFinal(encrypt);

System.out.println("Decrypted Plaintext is : " + new String(outData));

}

catch (Exception e)

{

e.printStackTrace();

}

}

}

OUTPUT

Enter Plaintext :

hello cummins

Public Key is: Sun RSA public key, 512 bits

  modulus: 671465470708600972432169815342

  public exponent: 65537

Encrypted Plaintext is : [B@71e7a66b

Private key:sun.security.rsa.

Decrypted Plaintext is : hello cummins