import java.security.\*;

import java.security.spec.ECGenParameterSpec;

public class CryptoWallet {

private PrivateKey privateKey;

private PublicKey publicKey;

public CryptoWallet() {

generateKeyPair();

}

public void generateKeyPair() {

try {

KeyPairGenerator keyGen = KeyPairGenerator.getInstance("EC");

SecureRandom random = SecureRandom.getInstanceStrong();

ECGenParameterSpec ecSpec = new ECGenParameterSpec("spec256k1");

keyGen.initialize(ecSpec, random);

KeyPair keyPair = keyGen.generateKeyPair();

privateKey = keyPair.getPrivate();

publicKey = keyPair.getPublic();

} catch (Exception e) {

e.printStackTrace();

}

}

public static void main(String[] args) {

CryptoWallet wallet = new CryptoWallet();

System.out.println("Private Key: " + wallet.privateKey);

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

}}