

```
import java.security.*;

public class DSADemo {
    public static void main(String[] args) throws Exception {
        KeyPairGenerator kpg = KeyPairGenerator.getInstance("DSA");
        kpg.initialize(1024);
        KeyPair kp = kpg.generateKeyPair();

        Signature sign = Signature.getInstance("SHA1withDSA");
        sign.initSign(kp.getPrivate());
        sign.update("Hello".getBytes());
        byte[] signature = sign.sign();

        sign.initVerify(kp.getPublic());
        sign.update("Hello".getBytes());
        boolean verified = sign.verify(signature);

        System.out.println("Signature verified: " + verified);
    }
}
```