CSE 5673-E1 CRN97670 Cryptology, Fall 2013, Project 1

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Requirement:

(submit as p1, by Nov 10). Implement the <u>Digital Signature Standard</u> using no other library than the BigInteger and Hash functions provided by the Java API. You may work in pairs, but not with the same colleague as for previous projects. The program to generate sign/verify a key should be called with:

java DSS -p <size_in_bits_of_p> -q <size_in_bits_q> -S <secret_key_file> -P <public_key_file>

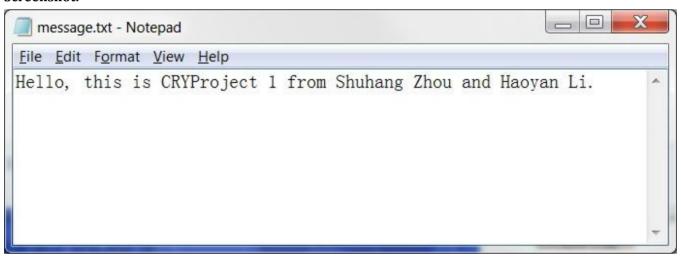
java DSS -M messagefile -S secret_key_file -s signature_file

java DSS -M messagefile -P public_key_file -s signature_file

You get a 50% bonus if you make your implementation to follow the template for **ECDSA** on github.

Secret DSA key with ASN1

Screenshot:



```
d:\CRYProject1\bin>java DSS -p 1024 -q 160 -S d:\sk.txt -P d:\pk.txt
Key Generation Completed, SK_file:d:\sk.txt PK_file:d:\pk.txt

d:\CRYProject1\bin>java DSS -M d:\message.txt -S d:\sk.txt -s d:\sign.txt
Sign completed! MessageFile:d:\message.txt SignFile:d:\sign.txt

d:\CRYProject1\bin>java DSS -M d:\message.txt -P d:\pk.txt -s d:\sign.txt

Verify Completed! The Signature is available!

d:\CRYProject1\bin>
```

