









```
C:\Users\BHARGAV KUMAR\Documents\SHA.c - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
(globals)
Project Classes
C:\Users\BHARGAV KUMAR\Documents\SHA.exe
Array with default data.Array : [ 0 0 0 0 0 0 0 0 ]
Adding 0 at index 0
Adding 1 at index 1
Adding 2 at index 2
Adding 3 at index 3
Adding 4 at index 4
Adding 5 at index 5
Adding 6 at index 6
Adding 7 at index 7
Array after adding data.Array : [ 0 1 2 3 4 5 6 7 ]
Array after updating element at index 5.
Array : [ 0 1 2 3 4 10 6 7 ]
Data at index 5:10
value 4 Found at index 4
-----
Process exited after 0.1119 seconds with return value 0
Press any key to continue . . .

Compiler
About Compiler
Shorten compiler paths
- Output Filename: C:\Users\BHARGAV KUMAR\Documents\SHA.exe
- Output Size: 129.12109375 KiB
- Compilation Time: 2.20s
Line: 61 Col: 2 Sel: 0 Lines: 61 Length: 1563 Insert Done parsing in 0.016 seconds
```

```
C:\Users\BHARGAV KUMAR\Downloads\DES.cpp - [Executing] - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
TDM-GCC 4.9.2 64-bit Release
Project Classes
C:\Users\BHARGAV KUMAR\Downloads\DES.exe
Enter PLAIN TEXT of EXACTLY 16 character written in hexadecimal : 30E8020CF24EE04C
Enter a KEY of EXACTLY 16 character written in hexadecimal : 30E8020CF24EE04C
1B3EACB56D0FB5F3
-----
Process exited after 53.75 seconds with return value 0
Press any key to continue . . .

Compiler
Line Col
24 31
26 75 C:\Users\BHARGAV KUMAR\Downloads\DES.cpp [Warning] non-static data member initializers only available with -std=c++11 or -std=gnu++11
35 28 C:\Users\BHARGAV KUMAR\Downloads\DES.cpp [Warning] non-static data member initializers only available with -std=c++11 or -std=gnu++11
46 35 C:\Users\BHARGAV KUMAR\Downloads\DES.cpp [Warning] non-static data member initializers only available with -std=c++11 or -std=gnu++11
55 27 C:\Users\BHARGAV KUMAR\Downloads\DES.cpp [Warning] non-static data member initializers only available with -std=c++11 or -std=gnu++11
106 2 C:\Users\BHARGAV KUMAR\Downloads\DES.cpp [Warning] non-static data member initializers only available with -std=c++11 or -std=gnu++11
115 20 C:\Users\BHARGAV KUMAR\Downloads\DES.cpp [Warning] non-static data member initializers only available with -std=c++11 or -std=gnu++11
Line: 24 Col: 43 Sel: 0 Lines: 460 Length: 10736 Insert Done parsing in 0.031 seconds
```

```
eclipse-workspace - secure1/src/secure1/secure.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help

Tasks Console X
<terminated> secure [Java Application] C:\Users\BHARGAV KUMAR\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.5.v20221102-0933\jre\bin\javaw.exe (12-Jan-2023, 1:46:24 pm - 1:46:25 pm) [pid: 4984]

Message digest object info:
Algorithm = SHA1
Provider = SUN version 17
ToString = SHA1 Message Digest from SUN, <initialized>

SHA1("") = DA39A3EE5E6B4B0D3255BFF95601890AFD80709
SHA1("abc") = A9993E364706816ABA3E25717850C26C9CD0D89D
SHA1("abcdefghijklmnopqrstuvwxyx") = 32D10C7B8CF96570CA04CE37F2A19D84240D3A89
```

```
eclipse-workspace - digital/src/digital/dsaALG.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help

Tasks Console X
<terminated> dsaALG [Java Application] C:\Users\BHARGAV KUMAR\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.5.v20221102-0933\jre\bin\javaw.exe (12-Jan-2023, 2:21:33 pm - 2:21:33 pm) [pid: 284]

simulation of Digital Signature Algorithm

global public key components are:

p is: 10601
q is: 53
g is: 693

secret information are:

x (private) is: 0
k (secret) is: 18
y (public) is: 1
h (rndhash) is: 4399

generating digital signature:

z is : 7
s is : 0
Exception in thread "main" java.lang.ArithmeticException: BigInteger not invertible.
    at java.base/java.math.MutableBigInteger.modInverse (MutableBigInteger.java:2216)
    at java.base/java.math.MutableBigInteger.mutableModInverse (MutableBigInteger.java:2077)
    at java.base/java.math.BigInteger.modInverse (BigInteger.java:3308)
    at digital.digital.dsaALG.main (dsaALG.java:69)
```