

TestJNI.c

```
#include<jni.h>
```

```
#include<stdio.h>
```

```
#include "TestJNI.h"
```

```
JNIEXPORT jint JNICALL Java_TestJNI_add(JNIEnv *env, jobject thisObj, jint n1, jint n2)
```

```
{
```

```
jint res;
```

```
res=n1+n2;
```

```
return res;
```

```
}
```

```
JNIEXPORT jint JNICALL Java_TestJNI_sub(JNIEnv *env, jobject thisObj, jint n1, jint n2)
```

```
{
```

```
jint res;
```

```
res=n1-n2;
```

```
return res;
```

```
}
```

```
JNIEXPORT jint JNICALL Java_TestJNI_div(JNIEnv *env, jobject thisObj, jint n1, jint n2)
```

```
{
```

```
jint res;
```

```
res=n1/n2;
```

```
return res;
```

```
}
```

```
JNIEXPORT jint JNICALL Java_TestJNI_mul(JNIEnv *env, jobject thisObj, jint n1, jint n2)
```

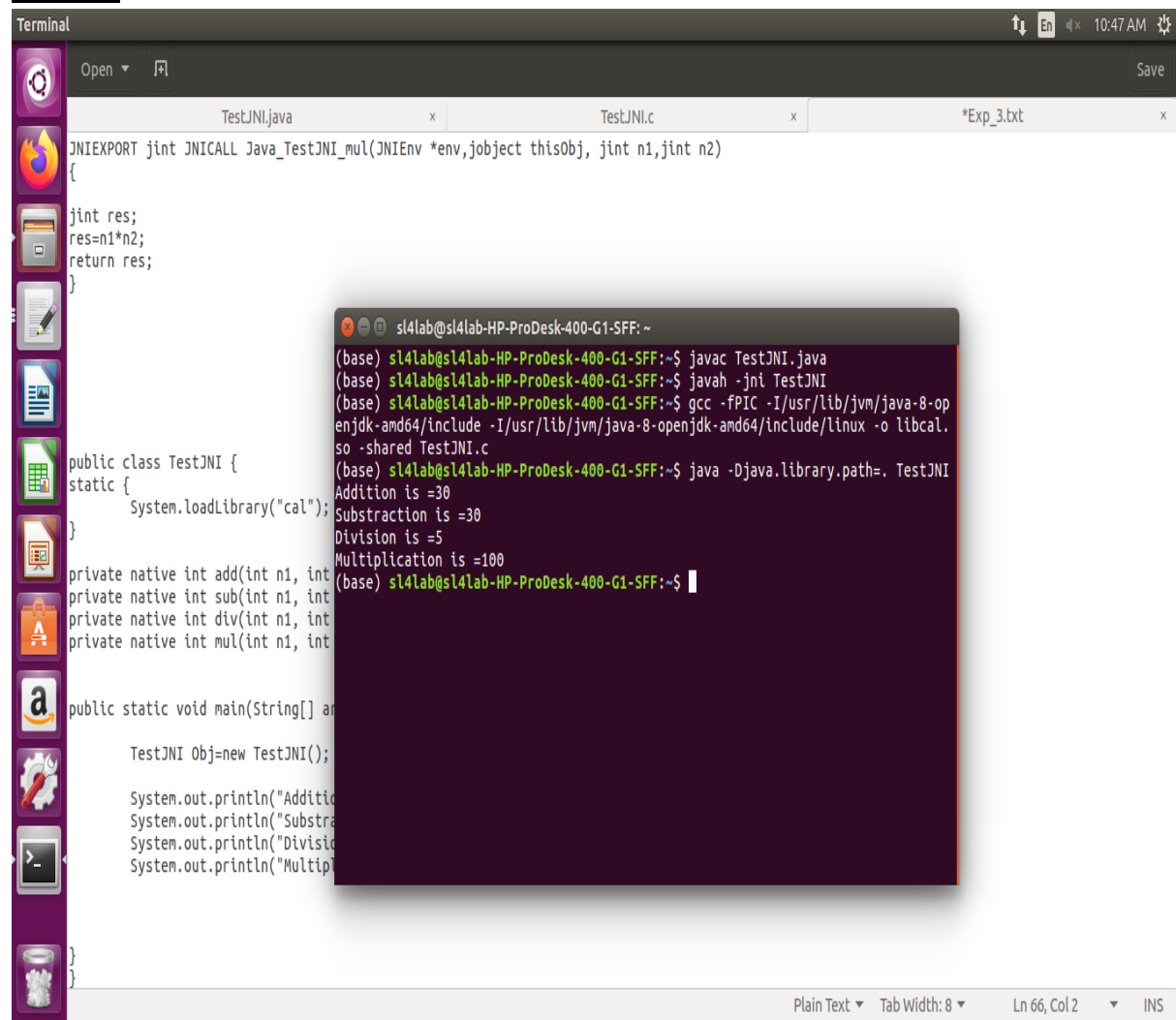
```
{
```

```
jint res;  
res=n1*n2;  
return res;  
}
```

TestJNI.java

```
public class TestJNI {  
    static {  
        System.loadLibrary("cal");  
    }  
  
    private native int add(int n1, int n2);  
    private native int sub(int n1, int n2);  
    private native int div(int n1, int n2);  
    private native int mul(int n1, int n2);  
  
    public static void main(String[] args) {  
        TestJNI Obj=new TestJNI();  
  
        System.out.println("Addition is "+Obj.add(10, 20));  
        System.out.println("Substraction is "+Obj.sub(50, 20));  
        System.out.println("Division is "+Obj.div(100, 20));  
        System.out.println("Multiplication is "+Obj.mul(5, 20));  
    }  
}
```

Output



```
Terminal
Open ▾  Save
TestJNI.java x TestJNI.c x *Exp_3.txt x

JNIEXPORT jint JNICALL Java_TestJNI_mul(JNIEnv *env, jobject thisObj, jint n1, jint n2)
{
    jint res;
    res=n1*n2;
    return res;
}

public class TestJNI {
    static {
        System.loadLibrary("cal");
    }
    private native int add(int n1, int n2);
    private native int sub(int n1, int n2);
    private native int div(int n1, int n2);
    private native int mul(int n1, int n2);

    public static void main(String[] args) {
        TestJNI Obj=new TestJNI();
        System.out.println("Addition is =30");
        System.out.println("Subtraction is =30");
        System.out.println("Division is =5");
        System.out.println("Multiplication is =100");
    }
}

(base) sl4lab@sl4lab-HP-ProDesk-400-G1-SFF:~$ javac TestJNI.java
(base) sl4lab@sl4lab-HP-ProDesk-400-G1-SFF:~$ javah -jni TestJNI
(base) sl4lab@sl4lab-HP-ProDesk-400-G1-SFF:~$ gcc -fPIC -I/usr/lib/jvm/java-8-openjdk-amd64/include -I/usr/lib/jvm/java-8-openjdk-amd64/include/linux -o libcal.so -shared TestJNI.c
(base) sl4lab@sl4lab-HP-ProDesk-400-G1-SFF:~$ java -Djava.library.path=. TestJNI
Addition is =30
Subtraction is =30
Division is =5
Multiplication is =100
(base) sl4lab@sl4lab-HP-ProDesk-400-G1-SFF:~$
```