Practical\_ Dynamic Link Library

B1.java

import java.io.\*;

import java.util.\*;

class B1{

static{

System.loadLibrary("B1");

}

private native int add(int a, int b);

private native int sub(int a, int b);

private native int mul(int a, int b);

private native int div(int a, int b);

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

int a, b, ch;

System.out.println("\n Enter value of a:");

a=sc.nextInt();

System.out.println("\n Enter value of b:");

b=sc.nextInt();

do{

System.out.println("\n Enter Your Choice:");

ch=sc.nextInt();

switch(ch)

{

case 1: new B1().add(a,b);

break;

case 2: new B1().sub(a,b);

break;

case 3: new B1().mul(a,b);

break;

case 4: new B1().div(a,b);

break;

default:System.out.println("Your choce is wrong");

}

}while(ch<5);

}

}

B1.c

#include<jni.h>

#include<stdio.h>

#include "B1.h"

JNIEXPORT int JNICALL Java\_B1\_add(JNIEnv \*env, jobject obj , jint a, jint b)

{

printf("\n%d + %d=%d\n",a,b,(a+b));

return;

}

JNIEXPORT int JNICALL Java\_B1\_sub(JNIEnv \*env, jobject obj , jint a, jint b)

{

printf("\n%d - %d=%d\n",a,b,(a-b));

return;

}

JNIEXPORT int JNICALL Java\_B1\_mul(JNIEnv \*env, jobject obj , jint a, jint b)

{

printf("\n%d \* %d=%d\n",a,b,(a\*b));

return;

}

JNIEXPORT int JNICALL Java\_B1\_div(JNIEnv \*env, jobject obj , jint a, jint b)

{

printf("\n%d / %d=%d\n",a,b,(a/b));

return;

}

B1.h

/\* DO NOT EDIT THIS FILE - it is machine generated \*/

#include <jni.h>

/\* Header for class B1 \*/

#ifndef \_Included\_B1

#define \_Included\_B1

#ifdef \_\_cplusplus

extern "C" {

#endif

/\*

 \* Class:     B1

 \* Method:    add

 \* Signature: (II)I

 \*/

JNIEXPORT jint JNICALL Java\_B1\_add

  (JNIEnv \*, jobject, jint, jint);

/\*

 \* Class:     B1

 \* Method:    sub

 \* Signature: (II)I

 \*/

JNIEXPORT jint JNICALL Java\_B1\_sub

  (JNIEnv \*, jobject, jint, jint);

/\*

 \* Class:     B1

 \* Method:    mult

 \* Signature: (II)I

 \*/

JNIEXPORT jint JNICALL Java\_B1\_mult

  (JNIEnv \*, jobject, jint, jint);

/\*

 \* Class:     B1

 \* Method:    div

 \* Signature: (II)I

 \*/

JNIEXPORT jint JNICALL Java\_B1\_div

  (JNIEnv \*, jobject, jint, jint);

#ifdef \_\_cplusplus

}

#endif

#endif

OUTPUT:-

javac B1.java

javah -classpath.B1

gcc -shared -FPIC -I/usr/lib/jvm/java-11-openjdk-amd64/include -I/usr/lib/jvm/java-11-openjdk-amd64/include/linux B1.c -o libB1.so

java -Djava.library.path=. B1

Enter value of a:

10

Enter value of b:

20

Enter Your Choice:

1

10 + 20=30

Enter Your Choice:

210 - 20=-10

Enter Your Choice:

3

10 \* 20=200

Enter Your Choice:

4

10 / 20=0