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ROLLNO: - 46
CLASS/BATCH: - TE-B-2

Practical no-3

//Implementation of Dynamic Link Library

Main.cpp

```cpp
#include <iostream>
#include "MathLibrary.h"

int main() {
    std::cout << "Add: " << add(4, 2) << std::endl;
std::cout << "Subtract: " << subtract(4, 2) << std::endl;
std::cout << "Mult: " << mult(4, 2) << std::endl;
std::cout << "mod: " << mod(4, 2) << std::endl;

    return 0;
}
```

MathLibrary.cpp

```cpp
#include "MathLibrary.h"

int add(int a, int b)
 {
   return a + b;
}

int subtract(int a, int b)
{
   return a - b;

}

int mult(int a, int b)
{
   return a * b;

}
int mod(int a, int b)
{
   return a % b;

}
```

MathLibrary.h-

```
#pragma once

 #ifdef __cplusplus
extern "C"
  {
 #endif

   int add(int a, int b);
int subtract(int a, int b);
int mult(int a, int b);
int mod(int a, int b);

 #ifdef __cplusplus
  }
 #endif
```

Output-

gescoe@gescoe-OptiPlex-3010:~/Desktop/TE-46/LP/DLL$ g++ -FPIC -c MathLibrary.cpp o MathLibrary.o

gescoe@gescoe-OptiPlex-3010:-/Desktop/TE-46/LP/DLL$ g++ shared -o libmath.so MathLibrary.o

gescoe@gescoe-OptiPlex-3010:-/Desktop/TE-46/LP/DLL$ g++ main.cpp -L. lmath -o main

gescoe@gescoe-OptiPlex-3010:~/Desktop/TE-46/LP/DLL$ LD_LIBRARY_PATH=../main

Add: 6

Subtract: 2

Multiplication: 8

Division: 2

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