

WEEKLY INTERNSHIP ASSIGNMENT 3

Problem Description

Divide a large program into separate functions and files to demonstrate modular design.

Project Structure

ModularProject/

```
└── main.c
└── math_operations.h
└── math_operations.c
```

Main Program (**main.c**)

```
</> #include <stdio.h>
</> #include "math_operations.h"

int main() {
    int x = 10, y = 5;

    printf("Addition: %d\n", add(x, y));
    printf("Subtraction: %d\n", subtract(x, y));

    return 0;
}
```

Header File (**math_operations.h**)

```
</> #ifndef MATH_OPERATIONS_H
</> #define MATH_OPERATIONS_H

// Function declarations
int add(int a, int b);
int subtract(int a, int b);

#endif
```

Source File (**math_operations.c**)

```
</> #ifndef MATH_OPERATIONS_H
</> #define MATH_OPERATIONS_H

// Function declarations
int add(int a, int b);
int subtract(int a, int b);

#endif
```

Compilation Command

```
</> gcc main.c math_operations.c -o
    modular_program
```

Execution Output

```
</> Addition: 15
    Subtraction: 5
```