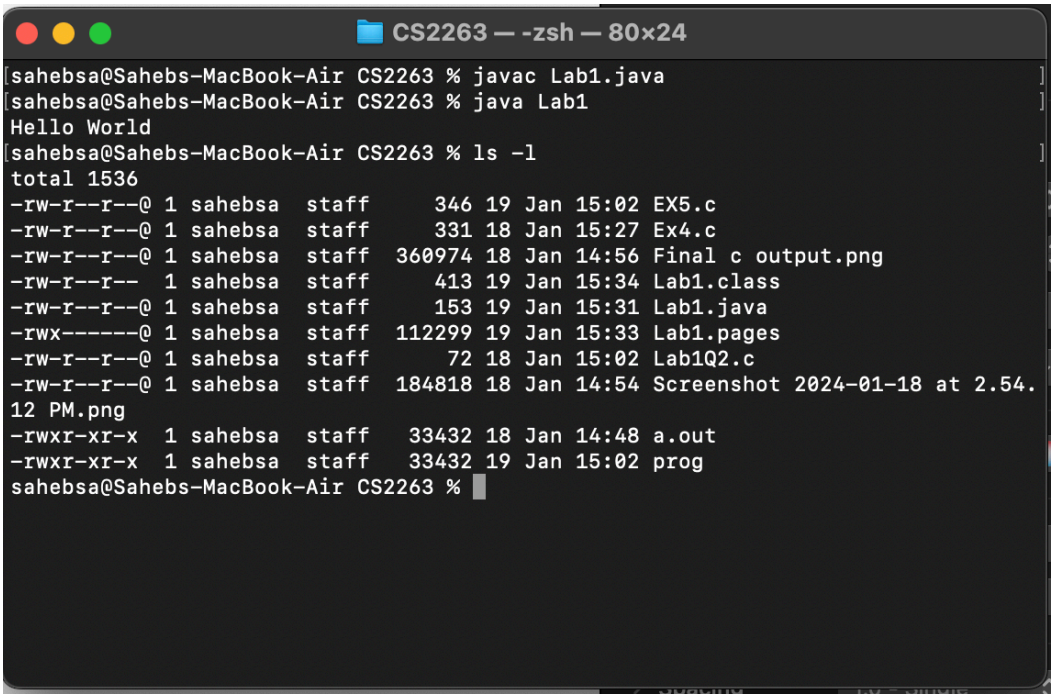
CS2263 Lab 1

Exercise 1

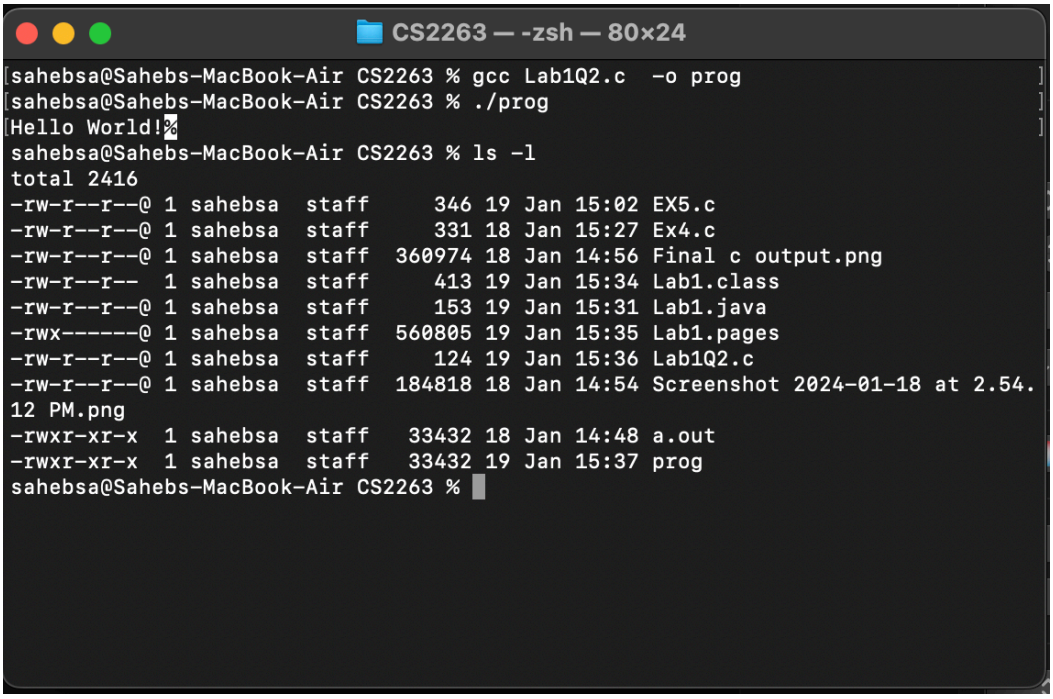
1.1)
```
/**
@author Saheb Singh Arora
Student id 3742233
*/
public class Lab1{
     public static void main(String[]args){
          System.out.println("Hello World");
     }

}
```



Exercise 2

2.1

```
/**
@author Saheb Singh Arora
Student id 3742233
*/
#include <stdio.h>

int main() {
  printf("Hello World!");
  return 0;
}
```



Exercise 3

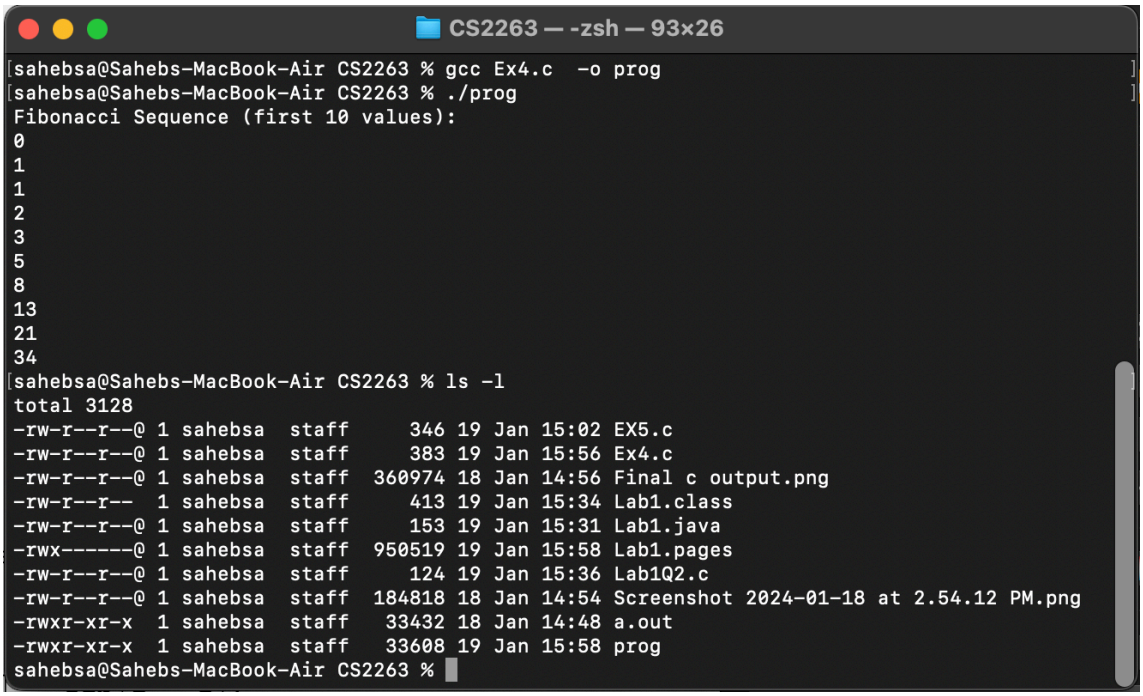
3.1

Their are two steps involves in writing a java program, The code is converted into bytecode, an intermediate layout, by the Java compiler. Subsequently, this bytecode is interpreted or compiled into instructions the computer may execute via the Java Virtual Machine (JVM). This is the reason why you must use the `java` command to tell the JVM to perform this task when you execute a Java program. C programs, on the other hand, are directly compiled into machine code and produced as independent software. Because of this, running C programs doesn't require a special command; instead, they can be executed directly without the requirement for a middleware like the JVM.

Exercise 4

4.1

```
/**
@author Saheb Singh Arora
Student id 3742233
*/
#include <stdio.h>

int main() {
    int n = 10;
    int fib[n];

    fib[0] = 0;
    fib[1] = 1;

    printf("Fibonacci Sequence (first %d values):\n", n);
    printf("%d\n%d\n", fib[0], fib[1]);

    for (int i = 2; i < n; i++) {
        fib[i] = fib[i - 1] + fib[i - 2];
        printf("%d\n", fib[i]);
    }

    return 0;
}
```

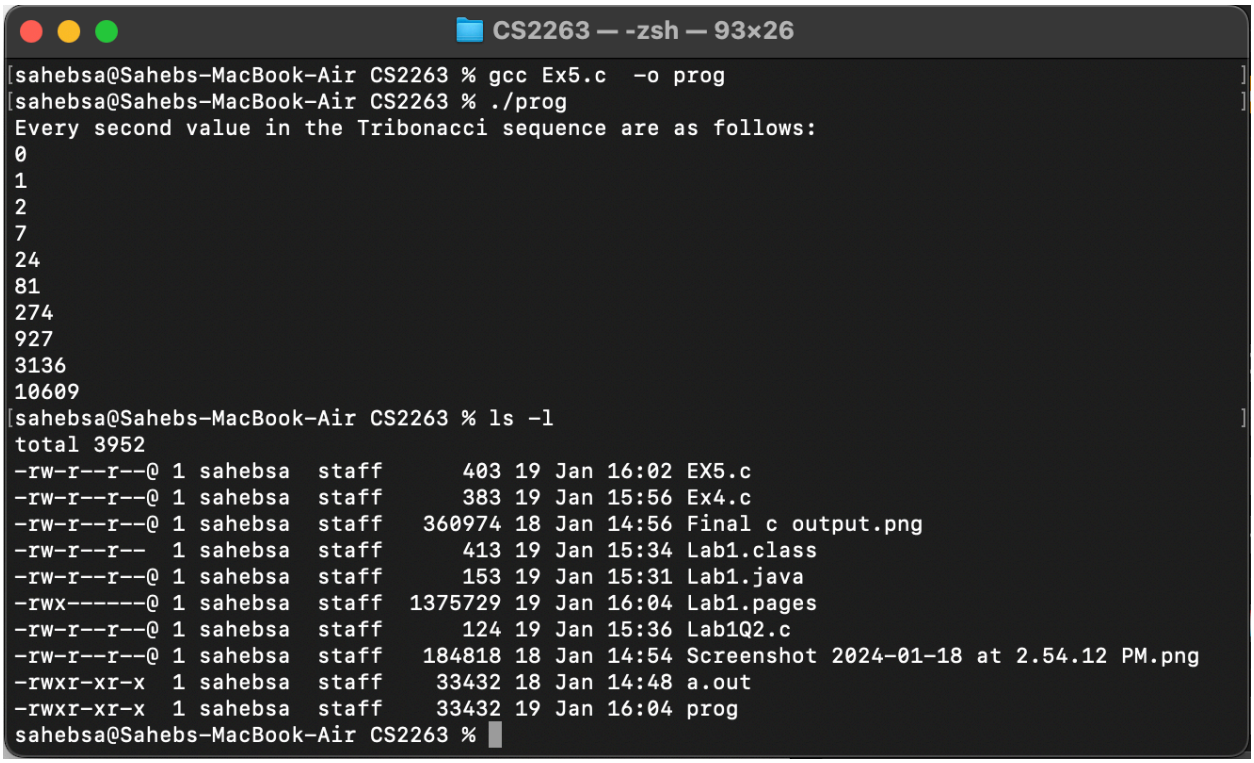


Exercise 5

5.1

```
/**
@author Saheb Singh Arora
Student id 3742233
*/
#include <stdio.h>

int main() {
    int a = 0;
    int b =1;
    int c = 1;
    int num=0;

    printf("Every second value in the Tribonacci sequence
are as follows:\n");
    printf("%d\n%d\n", a,b);

    for(int i = 0 ; i < 16 ; i++){
   num=a+b+c;
    a=b;

    b=c;
    c=num;
```

```
    if(i%2 == 0){
    printf("%d\n",num);
     }

    }
```




```
}
```