

Student Name: _____
Class and Section _____

Project: File Encryption

Problem Description:

Suppose an encrypted file was created by adding 5 to every byte in the file. Write a program to decode the encrypted file. Your program should prompt the user to enter an input file name and an output file name and should save the unencrypted version of the input file to the output file.

What should you do?

1. Run the following program to create an encrypted file.

(Delete this program when you print out this project to save paper.)

```
import java.util.Scanner;
import java.io.*;

public class Exercise17_14 {
    public static void main(String[] args) throws Exception {
        Scanner input = new Scanner(System.in);

        System.out.print("Enter a file to encrypt: ");
        BufferedInputStream in = new BufferedInputStream(
            new FileInputStream(new File(input.next())));

        System.out.print("Enter the output file: ");
        BufferedOutputStream output = new BufferedOutputStream(
            new FileOutputStream(new File(input.next())));

        int value;
        while ((value = in.read()) != -1) {
            output.write(value + 5);
        }

        input.close();
        output.close();
    }
}
```

2. Write a program to decrypt the file. Name your program Exercise17_15.

Submit the following items:

1. Compile and Submit (you must submit the program regardless whether it complete or incomplete, correct or incorrect)

2. Fill in self-evaluation: (Give me a hard copy of your self-evaluation.)

1. Can your program read byte from the file? _____
2. Can your program subtract 5 from each byte? _____
3. Can your program write the new byte to the output file? _____
4. Did your program close the files? _____

Solution Code:

```
import java.util.Scanner;
import java.io.*;

public class Exercise19_15 {
    public static void main(String[] args) throws Exception {
        Scanner input = new Scanner(System.in);

        System.out.print("Enter an encrypted file: ");
        BufferedInputStream in = new BufferedInputStream(
            new FileInputStream(new File(input.next())));

        System.out.print("Enter the output file: ");
        BufferedOutputStream output = new BufferedOutputStream(
            new FileOutputStream(new File(input.next())));

        int value;
        while ((value = in.read()) != -1) {

            output.write(value - 5);
        }

        input.close();
        output.close();
    }
}
```