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Ques 1b.

Car.java.

```
class Car {
```

```
    int model, speed = 0;
```

```
    String make;
```

```
    Car(int model, String make, int speed) {
```

```
        this.model = model;
```

```
        this.make = make;
```

```
        this.speed = speed;
```

```
    }
```

```
    void accessor() {
```

```
        System.out.println("Printing the details");
```

```
        System.out.println("Model: " + model);
```

```
        System.out.println("Make: " + make);
```

```
        System.out.println("Speed: " + speed);
```

```
    }
```

```
    void accelerate() {
```

```
        speed += 5;
```

```
    }
```

```
    void brake() {
```

```
        speed -= 5;
```

```
    }
```

```
public static void main (String[] args) {
```

```
    Car car = new Car(2018, "BMW", 200);
```

```
    car.accelerate();
```

```
    car.accelerate();
```

```
    car.accelerate();
```

```
    car.accelerate();
```

```
    car.accelerate();
```

```
    System.out.println("After Accelerating: " + car.speed);
```

```
    car.brake();
```

```
    System.out.println("After brake: " + car.speed);
```

```
    car.brake();
```

```
    System.out.println("After brake: " + car.speed);
```

```
    car.brake();
```

```
    System.out.println("After brake: " + car.speed);
```

```
    car.brake();
```

```
    System.out.println("After brake: " + car.speed);
```

```
    car.brake();
```

```
    System.out.println("After brake: " + car.speed);
```

```
}
```

```
}
```

Output:

After accelerating: 225

After brake: 220

After brake: 215

After brake: 210

After brake: 205

After brake: 200.

Modification

```
import java.io.FileInputStream;
import java.io.FileOutputStream;
import java.nio.file.Files;
import java.nio.file.Paths;
import java.util.*;
import java.io.InputStreamReader;
class Tables {
```

```
    public static void main (String [] args) {
```

```
        try {
```

```
            FileOutputStream fout = new FileOutputStream
                ("tables.txt");
```

```
            Scanner scan = new Scanner(System.in);
```

```
Scanner
```

```
            System.out.println("Enter the number");
```

```
            int number = scan.nextInt();
```

```
            for (int i = 1; i <= 10; i++) {
```

```
                String makeString = number + "X" + i +
                    "=" + (number * i);
```

```
                fout.write(makeString.getBytes());
```

```
                fout.write("\n");
```

```
            }
```

```
            fout.close();
```

```
            scan.close();
```

```
            System.out.println("File written");
```

```
        } catch (Exception e) {
```

```
            System.out.println(e);
```

```
        }
```

```
    }  
    ③
```


// For reading the file.

```
try {
```

```
    System.out.println("Enter the multiple you want to read");
```

```
    Scanner
```

```
    Scanner scan = new Scanner(System.in);
```

```
    int n = scan.nextInt();
```

```
    String line = Files.readAllLines(Paths.get("tables.txt")).get(n-1);
```

```
    Scanner
```

```
    System.out.println(line);
```

```
    scan.close();
```

```
} catch (Exception e) {
```

```
    System.out.println(e);
```

```
}
```

```
}
```

```
}
```

1b. Write a class named Car that has the following data members:

- model. The model field is an int that holds the car's year.
- make. The make field references a String object that holds the make of the car.
- speed. The speed field is an int that holds the car's current speed.

The class should have the following constructor and other methods.

- The constructor should accept the car's year model, make and speed as arguments.
- Accessor methods should get the values stored in an object's year, Model, make, and speed fields.
- Accelerate method should add 5 to the speed field each time it is called.
- Brake method should subtract 5 from the speed field each time it is called.

Demonstrate the class in a program that creates a Car object, and then calls the accelerate method five times. After each call to the accelerate method, get the current speed of the car and display it. Call the brake method five times. After each call to the brake method, get the current speed of the car and display it.

Car.java

```
class Car {
    int model, speed = 0;
    String make;

    Car(int model, String make, int speed) {
        this.model = model;
        this.make = make;
        this.speed = speed;
    }

    void accessor() {
        System.out.println("Printing the details");
    }
}
```

```
        System.out.println("Model: " + model);
        System.out.println("Make: " + make);
        System.out.println("Speed: " + speed);
    }

    void accelerate() {
        speed += 5;
    }

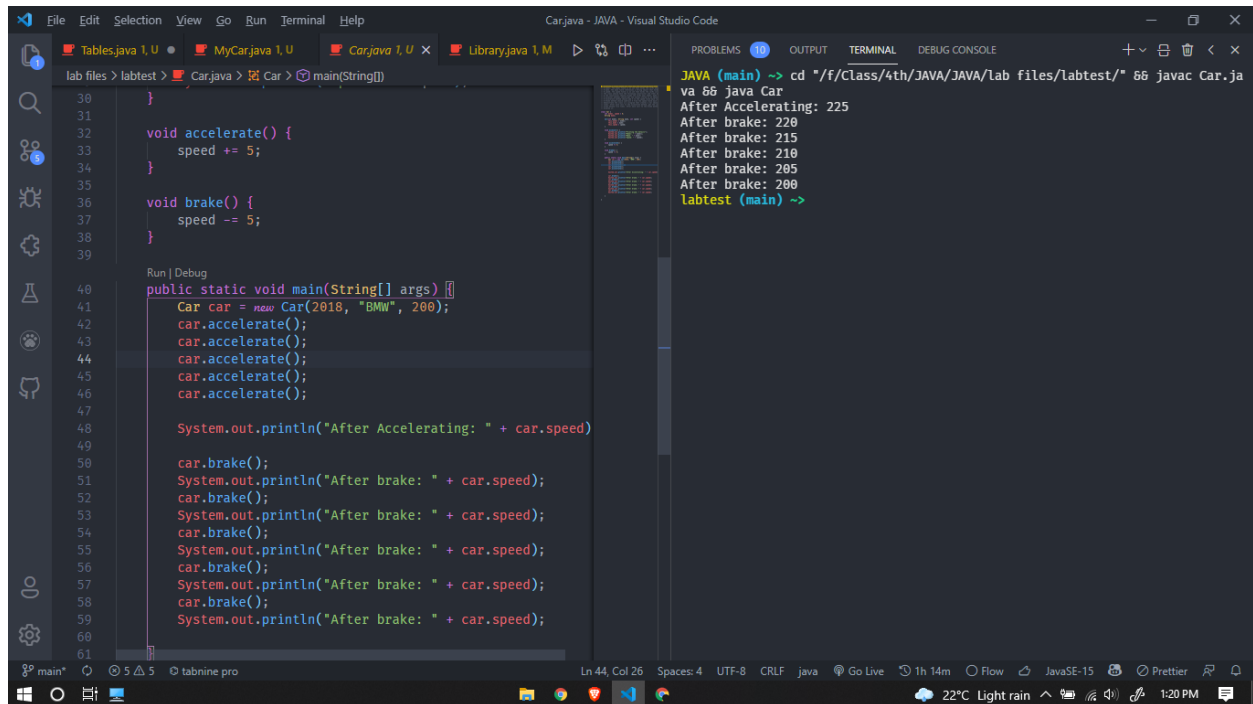
    void brake() {
        speed -= 5;
    }

    public static void main(String[] args) {
        Car car = new Car(2018, "BMW", 200);
        car.accelerate();
        car.accelerate();
        car.accelerate();
        car.accelerate();
        car.accelerate();

        System.out.println("After Accelerating: " + car.speed);

        car.brake();
        System.out.println("After brake: " + car.speed);
        car.brake();
        System.out.println("After brake: " + car.speed);
        car.brake();
        System.out.println("After brake: " + car.speed);
        car.brake();
        System.out.println("After brake: " + car.speed);
        car.brake();
        System.out.println("After brake: " + car.speed);

    }
}
```



Modification.java

```

import java.io.BufferedReader;
import java.io.FileInputStream;
import java.io.FileOutputStream;
import java.io.InputStreamReader;
import java.nio.file.Files;
import java.nio.file.Paths;
import java.util.*;

class Tables {
    public static void main(String[] args) {

        try {
            FileOutputStream fout = new FileOutputStream("tables.txt");

            Scanner scan = new Scanner(System.in);
            System.out.println("Enter the number");
            int number = scan.nextInt();

            for (int i = 1; i <= 10; i++) {

```

```

        String makeString = number + " x " + i + " = " + (number *
i);

        fout.write(makeString.getBytes());
        fout.write('\n');
    }

    fout.close();
    scan.close();
    System.out.println("successfully written multiple of " +
number);
    } catch (Exception e) {
        System.out.println(e);
    }

    try {
        System.out.println("Enter the multiple you want to read ");
        Scanner scan = new Scanner(System.in);
        int n = scan.nextInt();
        String line =
Files.readAllLines(Paths.get("tables.txt")).get(n - 1);
        System.out.println(line);
        scan.close();
    } catch (Exception e) {
        System.out.println(e);
    }

}
}

```



```
File Edit Selection View Go Run Terminal Help
Tables.java 1, U x
lab files > labtest > Tables.java > Tables > main(String[])
10 public static void main(String[] args) {
11
12     try {
13         FileOutputStream fout = new FileC
14
15         Scanner scan = new Scanner(System
16         System.out.println("Enter the num
17         int number = scan.nextInt();
18
19         for (int i = 1; i <= 10; i++) {
20             String makeString = number +
21             fout.write(makeString.getByt
22             fout.write('\n');
23         }
24
25         fout.close();
26         scan.close();
27         System.out.println("successfully
28     } catch (Exception e) {
29         System.out.println(e);
30     }
31
32     // try {
33     // System.out.println("Enter the mul
34     // Scanner scan = new Scanner(System
35     // int n = scan.nextInt();
36     // String line = Files.readAllLines(
37     // System.out.println(line);
38     // scan.close();
39     // } catch (Exception e) {
40     // System.out.println(e);
41     // }
42
labtest (main) -> cd "/f/Class/4th/JAVA/JAVA/lab files/labtest/" && javac Tables.java && java Tables
Enter the number
14
successfully written multiple of 1
4
labtest (main) ->
```

```
File Edit Selection View Go Run Terminal Help
Tables.java 1, U x
lab files > labtest > Tables.java > Tables > main(String[])
4 import java.io.*;
5 import java.io.InputStreamReader;
6 import java.nio.file.Files;
7 import java.nio.file.Paths;
8 import java.util.*;
9
10 class Tables {
11     public static void main(String[] a
12
13     // try {
14     // FileOutputStream fout = new
15
16     // Scanner scan = new Scanner(
17     // System.out.println("Enter t
18     // int number = scan.nextInt()
19
20     // for (int i = 1; i <= 10; i+
21     // String makeString = number
22     // fout.write(makeString.getBy
23     // fout.write('\n');
24     // }
25
26     // fout.close();
27     // scan.close();
28     // System.out.println("success
29     // } catch (Exception e) {
30     // System.out.println(e);
31     // }
32
33     try {
34         System.out.println("Enter
35         Scanner scan = new Scanner(
36         int n = scan.nextInt();
37
labtest (main) -> cd "/f/Class/4th/JAVA/JAVA/lab files/labtest/" && javac Tables.java && java Tabl
es
Enter the number
14
successfully written multiple of 14
labtest (main) -> cd "/f/Class/4th/JAVA/JAVA/lab files/labtest/" && javac Tables.java && java Tabl
es
Enter the multiple you want to read
5
14 x 5 = 70
labtest (main) ->
```