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Section: B

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Subject: Object Oriented Programming Lab

Practical-10

- **Problem Definition:**

Consider you have 2 files named as odd.txt and even.txt. And one file numbers.txt having first 20 numbers. Write a program to write odd numbers from numbers.txt file into file named as odd.txt and write even numbers from numbers.txt file into file named even.txt

- **Program:**

```
import java.io.File;
import java.io.FileWriter;
import java.io.IOException;
import java.util.Scanner;
public class Practical10 {
    public static void main(String[] args) {
        try {
            //Opening files
            File file = new File("numbers.txt");
            FileWriter fwOddFile = new FileWriter("odd.txt", true);
            FileWriter fwEvenFile = new FileWriter("even.txt", true);

            //Performing read-write operation on files
            Scanner fs = new Scanner(file);
            while (fs.hasNextLine()) {
                int n = fs.nextInt();
                if (n % 2 == 1) {
                    fwOddFile.write(n + "\n");
                }
                else{
                    fwEvenFile.write(n + "\n");
                }
            }

            System.out.println("All operations are successful!!!");
        }
    }
}
```

```

        //closing files
        fs.close();
        fwOddFile.close();
        fwEvenFile.close();
    } catch (Exception e) {
        System.out.println("Exception : " + e);
    }
}
}

```

- **Output:**

All operations are successful!!!

- **Screenshot:**

The screenshot displays the Visual Studio Code editor with the file 'Practical10.java' open. The code is as follows:

```

1  import java.io.File;
2  import java.io.FileWriter;
3  import java.io.IOException;
4  import java.util.Scanner;
5  public class Practical10 {
6      public static void main(String[] args) {
7          try {
8              //Opening files
9              File file = new File("numbers.txt");
10             FileWriter fwOddFile = new FileWriter("odd.txt", true);
11             FileWriter fwEvenFile = new FileWriter("even.txt", true);
12
13             //Performing read-write operation on files
14             Scanner fs = new Scanner(file);
15             while (fs.hasNextLine()) {
16                 int n = fs.nextInt();
17                 if (n % 2 == 1) {
18                     fwOddFile.write(n + "\n");
19                 }
20                 else{
21                     fwEvenFile.write(n + "\n");
22                 }
23             }
24
25             System.out.println("All operations are successful!!!");
26
27             //closing files
28             fs.close();
29             fwOddFile.close();
30             fwEvenFile.close();
31         } catch (Exception e) {
32             System.out.println("Exception : " + e);
33         }
34     }
35 }

```

The terminal on the right shows the execution of the program:

```

PS C:\Users\Admin\Desktop\Notes\OOP-Lab> cd "c:\Users\Admin\Desktop\Notes\OOP-Lab\" ; if ($?) { javac Practical10.java } ; if ($?) { java Practical10 }
All operations are successful!!!
PS C:\Users\Admin\Desktop\Notes\OOP-Lab>

```

The status bar at the bottom indicates the current position is Line 27, Column 28, with 4 spaces, UTF-8 encoding, CRLF line endings, and the Java language. It also shows various extensions like Go Live, JavaSE-17, and Prettier.

Files Before running program:

numbers.txt

```
≡ numbers.txt
1 1
2 2
3 3
4 4
5 5
6 6
7 7
8 8
9 9
10 10
11 11
12 12
13 13
14 14
15 15
16 16
17 17
18 18
19 19
20 20
```

odd.txt

```
≡ odd.txt
1
```

even.txt

```
even.txt
1
2
```

Files after running program

odd.txt

```
Practical10.java numbers.txt even.txt odd.txt
odd.txt
1 1
2 3
3 5
4 7
5 9
6 11
7 13
8 15
9 17
10 19
11
```

even.txt

☰ even.txt

```
1  2
2  4
3  6
4  8
5  10
6  12
7  14
8  16
9  18
10 20
11
```

- **Result:**

By studying concept of files in Java, I have successfully completed Practical-10.