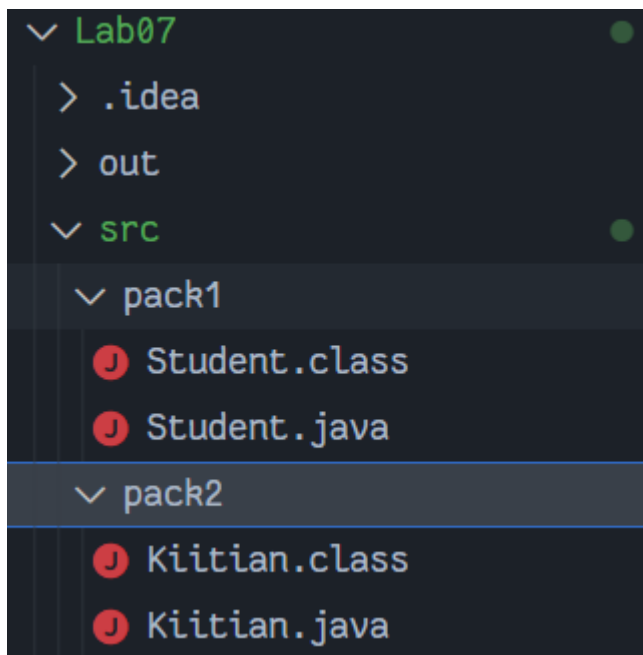# WT Lab07

Author: Dipankar Das

Date: 25-3-2022

Roll: 20051554

Question 1

Illustrate the usage of abstract class with following Java classes –

1. An abstract class student (package name- pack1)with data member roll no, reg no and a abstract method course().
2. A subclass kiitian (package name- pack2) with course() method implementation.

Solution

Student.java

```
package pack1;

public abstract class Student {
    public int roll;
    public int regNo;

    public abstract void course();
}
```

Kiitian.java

```java
package pack2;

import pack1.Student;

public class Kiitian extends Student{

    public String name;

    public Kiitian(int roll) {
        super.regNo = (int)(Math.random()*100000);
        super.roll = roll;
        this.name = "Demo-01";
    }

    @Override
    public void course() {
        System.out.printf("Name: %s\nThe roll: %d\t", name, roll);
        System.out.printf("The registration number: %d\n",regNo);
    }

    public static void main(String[] args) {
        Kiitian obj = new Kiitian(20051554);
        obj.course();
    }
}
```

Output

```
→ src git:(main) javac .\pack2\Kiitian.java
→ src git:(main) java .\pack2\Kiitian
Error: Could not find or load main class .\pack2\Kiitian
Caused by: java.lang.ClassNotFoundException: /\pack2\Kiitian
→ src git:(main) x java pack2\Kiitian
Error: Could not find or load main class pack2\Kiitian
Caused by: java.lang.NoClassDefFoundError: pack2/Kiitian (wrong name:
 pack2\Kiitian)
→ src git:(main) x java pack2/Kiitian
Name: Demo-01
The roll: 20051554        The registration number: 75326
→ src git:(main) java pack2/Kiitian
Name: Demo-01
The roll: 20051554        The registration number: 1795
→ src git:(main)
```

```java
1 package pack1;
2
3 public abstract class Student {
4     public int roll;
5     public int regNo;
6
7     public abstract void course();
8 }
~
~
~
~
~
~
~
~
N…   Student.java                              jav… 25% ln:2 %:1
```

```java
1 package pack2;
2
3 import pack1.Student;
4
5 public class Kiitian extends Student{
6
7     public String name;
8
9     public Kiitian(int roll) {
10        super.regNo = (int)(Math.random()*100000);
11        super.roll = roll;
12        this.name = "Demo-01";
13    }
14
15    @Override
16    public void course() {
17        System.out.printf("Name: %s\nThe roll: %d\t", name, roll)
;
18        System.out.printf("The registration number: %d\n",regNo);
19    }
20
21    public static void main(String[] args) {
22        Kiitian obj = new Kiitian(20051554);
23        obj.course();
24    }
25 }
26 /**
27  * javac .\pack2\Kiitian.java
28  * java pack2/Kiitian
29  */
~
~
~
~
~
~
N…   pack2/Kiitian.java                         jav… 3% ln:1 %:1
```