

The screenshot shows the Eclipse IDE with a Java project named 'Subclasses'. The main editor displays the 'Vaccination.java' file. The code defines a 'Vaccination' class with a 'main' method that simulates a vaccination process for a user named 'Indian' aged 25. The process involves creating a 'VaccinationSuccessful' object, calling 'firstDose()', 'secondDose()', and 'boosterDose()' methods. The 'main' method is annotated with a Javadoc comment: `/**
 * @param args the command line arguments
 */`. The 'firstDose()' method is annotated with `/**
 * @return true if the user is eligible for the first dose
 */`. The 'secondDose()' method is annotated with `/**
 * @param firstDoseTaken the first dose taken
 * @return true if the user is eligible for the second dose
 */`. The 'boosterDose()' method is annotated with `/**
 * @return true if the user is eligible for the booster dose
 */`. The 'main' method calls these methods in sequence. The 'Outline' view on the right shows the project structure: 'Subclasses' > 'Vaccination' > 'main(String[]): void'. The 'Console' view at the bottom shows the output of the program:
<terminated> Vaccination [Java Application] C:\Users\josej\Downloads\spring-tool-suite-4-4.26.0.RELEASE-e4.33.0-win32.win32.x86_64\sts-4.26.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64...
You are eligible for the first dose.
You need to pay 250 INR.
You are eligible for the second dose.
You are eligible for the booster dose.

```
1 package Subclasses;  
2  
3 public class Vaccination {  
4     public static void main(String[] args) {  
5         // Creating a VaccinationSuccessful object with age and nationality  
6         VaccinationSuccessful user1 = new VaccinationSuccessful(25, "Indian");  
7  
8         // Calling first dose method  
9         user1.firstDose();  
10  
11        // Simulate the user taking the first dose  
12        boolean firstDoseTaken = true; // Assume the first dose was taken  
13  
14        // Calling second dose method  
15        user1.secondDose(firstDoseTaken);  
16  
17        // Calling booster dose method  
18        user1.boosterDose();  
19    }  
20 }  
21  
22
```

Outline

- Subclasses
 - Vaccination
 - main(String[]): void

Console

<terminated> Vaccination [Java Application] C:\Users\josej\Downloads\spring-tool-suite-4-4.26.0.RELEASE-e4.33.0-win32.win32.x86_64\sts-4.26.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64...
You are eligible for the first dose.
You need to pay 250 INR.
You are eligible for the second dose.
You are eligible for the booster dose.

Window Help

HillStations.java HillStationTest.java ×

```
// main class to run the program
6 public static void main(String[] args) {
7     // Creating objects of HillStations (Superclass)
8     HillStations hillStation = new HillStations();
9
10    // Calling methods of HillStations (Superclass)
11    System.out.println("From HillStations class (Superclass):");
12    hillStation.location();
13    hillStation.famousFor();
14
15    // Creating objects of subclasses
16    HillStations manali = new Manali();
17    HillStations mussoorie = new Mussoorie();
18    HillStations gulmarg = new Gulmarg();
19
20    // Calling methods of each subclass (demonstrating polymorphism)
21    System.out.println("\nFrom Manali subclass:");
22    manali.location();
23    manali.famousFor();
24
25    System.out.println("\nFrom Mussoorie subclass:");
26    mussoorie.location();
27    mussoorie.famousFor();
28
29    System.out.println("\nFrom Gulmarg subclass:");
30    gulmarg.location();
31    gulmarg.famousFor();
32 }
33 }
34
35
36
```

Outline ×

- Subclasses
 - ✓ HillStationTest
 - main(String[]) : void

@ Javadoc Declaration Console ×

terminated> HillStationTest [Java Application] C:\Users\josej\Downloads\spring-tool-suite-4-4.26.0.RELEASE-e4.33.0-win32.win32.x86_64\sts-4.26.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64.jre\bin\java.exe

From HillStations class (Superclass):
Location: Generic Hill Station
Famous for: Scenic Beauty

From Manali subclass:
Location: Manali, Himachal Pradesh
Famous for: Adventure Sports, Solang Valley

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Animal.java AnimalSoundTest.java ×

```
1 package Subclasses;
2
3 public class AnimalSoundTest {
4     // Main class to test the program
5     public static void main(String[] args) {
6         // Creating objects of Animal, Dog, and Cat
7         Animal animal = new Animal();
8         Dog dog = new Dog();
9         Cat cat = new Cat();
10
11         // Calling the makeSound() method for each object
12         System.out.println("Animal Sound:");
13         animal.makeSound(); // Calls Animal's makeSound
14
15         System.out.println("\nDog Sound:");
16         dog.makeSound(); // Calls Dog's overridden makeSound
17
18         System.out.println("\nCat Sound:");
19         cat.makeSound(); // Calls Cat's overridden makeSound
20     }
21 }
22
23
```

Outline ×

- Subclasses
 - AnimalSoundTest
 - main(String[]): void

@ Javadoc Declaration Console ×

<terminated> AnimalSoundTest [Java Application] C:\Users\josej\Downloads\spring-tool-suite-4-4.26.0.RELEASE-e4.33.0-win32.win32.x86_64\sts-4.26.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.

Dog Sound:
The dog barks.

Cat Sound:
The cat meows.

