

Assignment_1 > com > person > Person.java > { } com.person

```
1 package com.person;
2
3 public class Person {
4
5     // private data member
6     private String name;
7
8     // protected data member
9     protected int age;
10
11    // default (package-private) data member
12    String city;
13
14    // constructor to initialize values
15    public Person(String name, int age, String city) {
16        this.name = name;
17        this.age = age;
18        this.city = city;
19    }
20
21    // public method to display details
22    public void displayPersonDetails() {
23        System.out.println("Name: " + name);      // private accessible within class
24        System.out.println("Age: " + age);        // protected
25        System.out.println("City: " + city);       // default
26    }
27
28    // public getter for private variable
29    public String getName() {
30        return name;
31    }
32 }
33 }
```

Assignment_1 > com > person > J Student.java > ...

```
1 package com.person;
2
3 public class Student extends Person {
4
5     // private data member
6     private int rollNumber;
7
8     // constructor
9     public Student(String name, int age, String city, int rollNumber) {
10         super(name, age, city);
11         this.rollNumber = rollNumber;
12     }
13
14     // public method to display student details
15     public void displayStudentDetails() {
16
17         // Accessing public method of parent
18         displayPersonDetails();
19
20         // Accessing protected member of parent
21         System.out.println("Age (protected): " + age);
22
23         // Accessing default member of parent (same package)
24         System.out.println("City (default): " + city);
25
26         // Accessing own private member
27         System.out.println("Roll Number: " + rollNumber);
28
29         // ❌ Not allowed:
30         // System.out.println(name); // private member of Person
31     }
32 }
33 }
```

Assignment_1 > com > test > **J** MainTest.java > ...

```
1 package com.test;
2
3 import com.person.Student;
4
5 public class MainTest {
6
7     Run | Debug | Run main | Debug main
8     public static void main(String[] args) {
9
10         Student s = new Student(name: "Devam", age: 20, city: "Chennai", rollNumber: 101);
11
12         //Allowed: public method
13         s.displayStudentDetails();
14
15         //Not allowed: protected member (different package)
16         //System.out.println(s.age);
17
18         //Not allowed: default member (different package)
19         //System.out.println(s.city);
20
21         //Not allowed: private member
22         //System.out.println(s.name);
23
24         System.out.println(x: "\nAccess restrictions demonstrated successfully.");
25     }
26 }
```

The screenshot shows a Java project structure in the Explorer view and its execution in the Terminal view.

EXPLORER pane:

- CSE4019
 - Assignment_1\com
 - person
 - J Person.class
 - J Person.java
 - J Student.class
 - J Student.java
 - test
 - J MainTest.class
 - J MainTest.java

TERMINAL pane:

```
Assignment_1 > com > test > J MainTest.java > ...
1 package com.test;
2
3 import com.person.Student;
4
5 public class MainTest {
PROBLEMS 6 OUTPUT DEBUG CONSOLE TERMINAL PORTS pwsh - Assignment_1 + × ⌂ ⌂ ... | [ ] ×
● PS E:\Study Material\College Assignment and Practice Codes\CSE4019> cd ..\Assignment_1\
PS E:\Study Material\College Assignment and Practice Codes\CSE4019\Assignment_1> javac -d .. com/person/*.java
● com/test/*.java
● PS E:\Study Material\College Assignment and Practice Codes\CSE4019\Assignment_1> java com.test.MainTest
Name: Devam
Age: 20
City: Chennai
Age (protected): 20
City (default): Chennai
Roll Number: 101
○ PS E:\Study Material\College Assignment and Practice Codes\CSE4019\Assignment_1> █
```

SIDE BAR pane:

 - > OUTLINE
 - > TIMELINE
 - > PROJECTS
 - > RUN CONFIGURATION
 - > JAVA PROJECTS