

Assignment

Shadowing problem can be resolved by using this keyword

Example:1

```
public class Department {  
  
    String name;  
  
    int id;  
  
    String head;  
  
    int employeeCount;  
  
    int studentCount;  
  
    String location;  
  
    String facilities;  
  
    String programs;  
  
    String courses;  
  
    public Department(String name, int id, String head,  
        int employeeCount, int studentCount, String location,  
        String facilities, String programs, String courses) {  
  
        this.name = name;  
  
        this.id = id;  
  
        this.head = head;  
  
        this.employeeCount = employeeCount;  
  
        this.studentCount = studentCount;  
  
        this.location = location;  
  
        this.facilities = facilities;  
  
    }  
}
```

```
this.programs = programs;

this.courses = courses;
}

void services()
{
    System.out.println(name+" Is offering services");
}

void exams()
{
    System.out.println(name+" Conduct exams");
}
}
```

```
import java.util.Scanner;

public class DepartmentApp {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter Department name");

        String name=sc.nextLine();

        System.out.println("Enter Department id");

        int id = sc.nextInt();
```

```
System.out.println("Enter name of the HOD");

sc.nextLine();

String head = sc.nextLine();

System.out.println("Enter employeeCount in the
department");

int employeeCount = sc.nextInt();

System.out.println("Enter studentCount in the
department");

int studentCount = sc.nextInt();

System.out.println("Enter location the department");

sc.nextLine();

String location =sc.nextLine();

System.out.println("Enter facility provided by the
Department");

String facilities=sc.nextLine();

System.out.println("Enter Programs conducted by the
Department");

String programs=sc.nextLine();

System.out.println("Enter courses provided by the
Department");

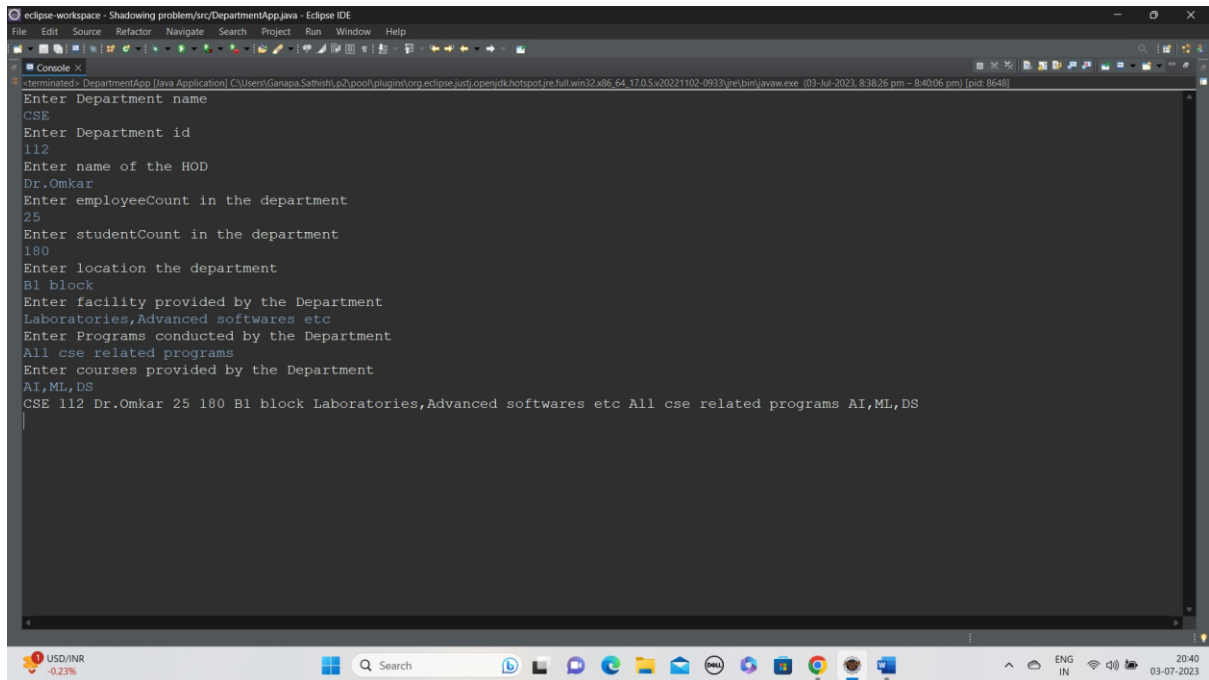
String courses=sc.nextLine();

Department d = new Department(name, id, head,
employeeCount, studentCount, location, facilities,
programs, courses);

System.out.println(d.name+" "+d.id+" "+d.head+"
"+d.employeeCount+" "+ d.studentCount+"
"+d.location+" "+d.facilities+" "+d.programs+"
"+d.courses);
```

```
}  
  
}
```

OUTPUT:



```
cdpsw-workspace - Shadowing problem/src/DepartmentApp.java - Eclipse IDE  
File Edit Source Refactor Navigate Search Project Run Window Help  
Console X  
<terminated> DepartmentApp [Java Application] C:\Users\Ganapa.Sathish\p2\pooch\plugins\org.eclipse.justi.openjdk.hotspot.re.full.win32.x86_64.17.0.5.v20221102-0933\jre\bin\javaw.exe (03-Jul-2023, 8:38:26 pm - 8:40:06 pm) [pid: 8648]  
Enter Department name  
CSE  
Enter Department id  
112  
Enter name of the HOD  
Dr.Omkar  
Enter employeeCount in the department  
25  
Enter studentCount in the department  
180  
Enter location the department  
B1 block  
Enter facility provided by the Department  
Laboratories,Advanced softwares etc  
Enter Programs conducted by the Department  
All cse related programs  
Enter courses provided by the Department  
AI,ML,DS  
CSE 112 Dr.Omkar 25 180 B1 block Laboratories,Advanced softwares etc All cse related programs AI,ML,DS  
|
```

Example 2:

```
class Library {  
    String name;  
    String location;  
    int totalBooks;  
    int capacity;  
    String departments;  
    String staffMembers;  
    String studentName;  
    int studentId;  
    double budget;  
  
    public Library(String name, String location, int  
totalBooks, int capacity, String departments, String  
staffMembers, String studentName, int studentId,  
double budget)  
  
    {  
        this.name=name;  
        this.location=location;  
        this.totalBooks=totalBooks;  
        this.capacity=capacity;  
        this.departments=departments;  
        this.staffMembers=staffMembers;  
        this.studentName=studentName;  
        this.studentId=studentId;
```

```
this.budget=budget;

}

void containsBooks()

{

System.out.println(name+" Contains Books");

}

void services()

{

System.out.println(name+" Offering services");

}

}
```

```
import java.util.Scanner;

public class LibraryApp {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter name of the library");

String name=sc.nextLine();

System.out.println("Enter location of the library");

String location =sc.nextLine();

System.out.println("Enter Total count of the books in library");

int totalBooks = sc.nextInt();

}
```

```
System.out.println("Enter seating capacity in library");

int capacity = sc.nextInt();

System.out.println("Enter which department books does library contain ");

String departments =sc.nextLine();

sc.nextLine();

System.out.println("Enter names of the staffMembers in the library");

String staffMembers=sc.nextLine();

System.out.println("Enter name of the student");

String studentName=sc.nextLine();

System.out.println("Enter studentId");

int studentId=sc.nextInt();

System.out.println("Enter budget of thelibrary");

double budget = sc.nextDouble();

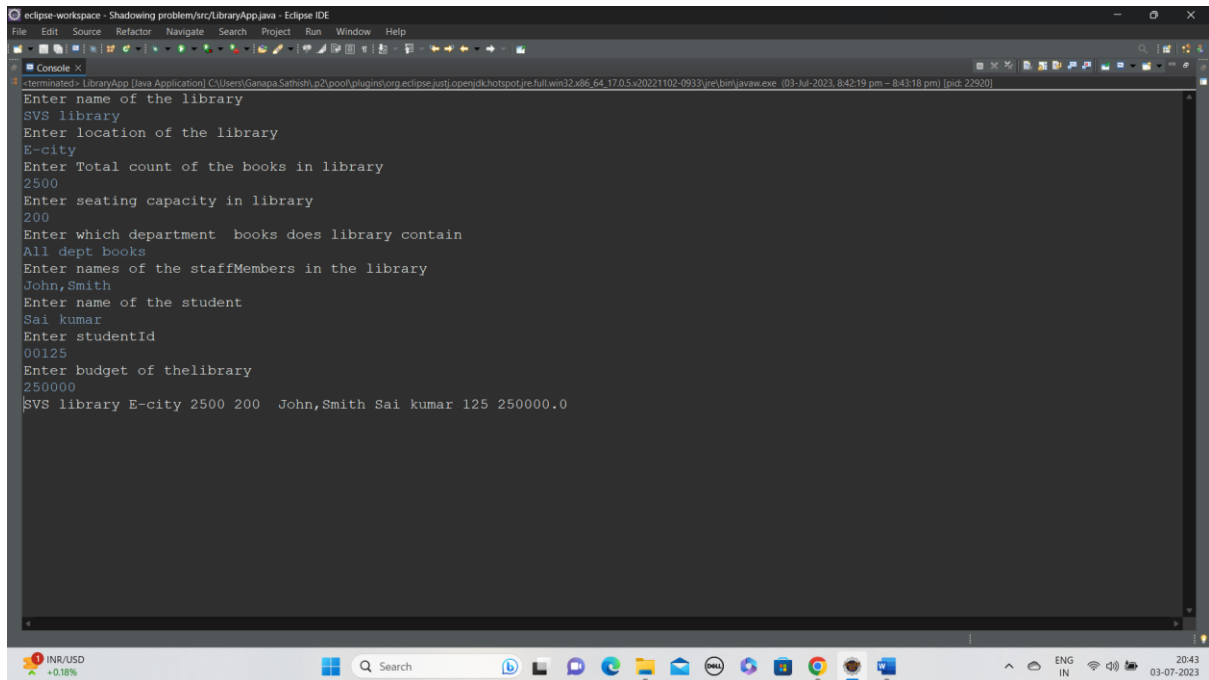
Library l = new Library(name, location, totalBooks, capacity, departments, staffMembers, studentName, studentId, budget);

System.out.println(l.name+" "+l.location+" "+l.totalBooks+" "+l.capacity+" "+ l.departments+" "+l.staffMembers+" "+l.studentName+" "+l.studentId+" "+l.budget);

}

}
```

OUTPUT:



```
eclipse-workspace - Shadowing problem/src/LibraryApp.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
<terminated> LibraryApp [Java Application] C:\Users\Ganapa Sathish\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.17.0.5.v20221102-0933\jre\bin\java.exe [03-Jul-2023, 8:42:19 pm] [pid: 22920]
Enter name of the library
SVS library
Enter location of the library
E-city
Enter Total count of the books in library
2500
Enter seating capacity in library
200
Enter which department books does library contain
All dept books
Enter names of the staffMembers in the library
John,Smith
Enter name of the student
Sai kumar
Enter studentId
00125
Enter budget of the library
250000
SVS library E-city 2500 200 John,Smith Sai kumar 125 250000.0
4
```