



# DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Discover. Learn. Empower.

## Experiment - 6

**Student Name:** Shivam Kumar Tiwari

**UID:** 23BCS12755

**Branch:** BE-CSE

**Section/Group:** KRG-2B

**Semester:** 5<sup>th</sup>

**Date of Performance:** 13/10/25

**Subject Name:** Project Based Learning in Java

**Subject Code:** 23CSH-304

**1.Aim:** Develop a Java program using lambda expressions and Stream operations to filter students scoring above 75%, sort them by marks, and display their names.

**2.Objective:** To apply filtering, sorting, and transformation operations using the Stream API in Java for concise and efficient data processing.

**3.Apparatus / Input Used:**

- Programming Language: Java (JDK 8 or above)

- IDE: Eclipse / IntelliJ / VS Code

- Classes & Methods Used: Stream, filter(), sorted(), map(), collect()

### 4. Procedure:

1. Define a Student class with fields: name, id, and marks.

2. Create a list of student objects.

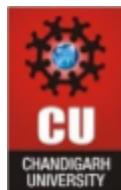
3. Use Stream API to:

- Filter students with marks greater than 75.
- Sort them by marks in descending order.
- Extract and display their names.

4. Display the final list of students who scored above 75%.

### Program Code:

```
import java.util.*; import  
java.util.stream.*;
```



# DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Discover. Learn. Empower.

```
class Student {  
    String name;  
    int id;  
    double  
    marks;  
  
    Student(String name, int id, double marks)  
        { this.name = name; this.id = id;  
        this.marks = marks;  
    }  
  
    public String toString() {  
        return name + " - " + marks;  
    }  
}  
  
public class StreamStudentFilter {  
    public static void main(String[] args) {  
        List<Student> students =  
            Arrays.asList( new Student("Ravi",  
                101, 85.5), new Student("Aditi",  
                102, 92.0), new Student("Kiran",  
                103, 78.0), new Student("Manoj",  
                104, 68.0),  
                new Student("Tina", 105, 72.5)  
        );  
  
        System.out.println("Students scoring above 75%:");  
        List<String> topStudents = students.stream()  
            .filter(s -> s.marks > 75)  
            .sorted((s1, s2) -> Double.compare(s2.marks, s1.marks))  
            .map(s -> s.name)  
            .collect(Collectors.toList());  
  
        topStudents.forEach(System.out::println);  
    }  
}
```



# DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Discover. Learn. Empower.

## Sample Output:

Students scoring above 75%:

Aditi

Ravi

Kiran