

Employee Class:

```
public class Employee {
    String EmployeeID;
    String Name;
    int age;
    int salary;
    public Employee(String employeeID, String name, int age, int salary) {
        EmployeeID = employeeID;
        Name = name;
        this.age = age;
        this.salary = salary;
    }
    public String getEmployeeID() {
        return EmployeeID;
    }
    public String getName() {
        return Name;
    }
    public int getAge() {
        return age;
    }
    public int getSalary() {
        return salary;
    }
}
```

EmployeeList Class:

```
public class EmployeeList {
    private int maxSize;
    private int position;
    private static Employee[] ListEntry;
    EmployeeList(int size) {
        maxSize = size;
        ListEntry = new Employee[maxSize];
        position = -1;
    }
    boolean IsListEmpty() {
        return position == 1;
    }
    boolean IsListFull() {
        return (position == maxSize - 1);
    }
    int ListSize() {
        return (position + 1);
    }
    void InsertLast(Employee x) {
        if (IsListFull())
            System.out.println("Attempt to insert at the end of a full list");
        else
            ListEntry[++position] = x;
    }
    Employee RetrieveList(int p) {
```

```

        int i;
        Employee element;
        if (IsEmpty()) {
            System.out.println("Attempt to retrieve an entry from an empty");
            return null;
        } else if (p < 0 || p >= ListSize()) {
            System.out.println("attempt to retrieve an entry at a position
not in the");
            return null;
        } else {
            element = ListEntry[p];
            return element;
        }
    }

    void TraverselList() {
        int i;

        System.out.println("\tEmployeeId\t\tName\t\tAge\t\tSalary\t");
        for (i = 0; i < position + 1; i++) {
            System.out.println("\t" + ListEntry[i].getEmployeeID() +
                "\t\t" + ListEntry[i].getName() + "\t\t" +
                ListEntry[i].getAge() +
                "\t\t" + ListEntry[i].getSalary() + "\t");
        }
    }

    void BubbleSort() {
        int n = ListEntry.length;
        Employee temp = null;
        for (int i = 0; i < n; i++) {
            for (int j = 1; j < (n - i); j++) {
                if (ListEntry[j - 1].getSalary() >
                    ListEntry[j].getSalary()) {
                    temp = ListEntry[j - 1];
                    ListEntry[j - 1] = ListEntry[j];
                    ListEntry[j] = temp;
                }
            }
        }
    }

    public Employee[] searchEmployeesByAge(int targetAge) {
        Employee[] result = new Employee[maxSize];
        int resultIndex = 0;
        for (int i = 0; i <= position; i++) {
            if (ListEntry[i].getAge() == targetAge) {
                result[resultIndex++] = ListEntry[i];
            }
        }
        if (resultIndex > 0) {
            Employee[] trimmedResult = new Employee[resultIndex];
            System.arraycopy(result, 0, trimmedResult, 0, resultIndex);
            return trimmedResult;
        } else {
            return null;
        }
    }
}

```

Main Class:

```
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner sc =new Scanner(System.in);
        System.out.print("Enter Employee count: ");
        int count = sc.nextInt();
        EmployeeList list = new EmployeeList(count);
        sc.nextLine();
        for (int i=0;i<count;i++) {
            System.out.print("Enter Employee Id : ");
            String employeeID = sc.nextLine();
            System.out.print("Enter Name: ");
            String name = sc.nextLine();
            System.out.print("Enter Age: ");
            int age = sc.nextInt();
            sc.nextLine();
            System.out.print("Enter Salary: ");
            int salary = sc.nextInt();
            sc.nextLine();
            list.InsertLast(new Employee(employeeID, name, age, salary));
        }
        list.TraversellList();
        list.BubbleSort();
        System.out.print("\nAfter Sorting: ");
        list.TraversellList();
        System.out.println();
        System.out.print("Enter Age of Employee: ");
        int age = sc.nextInt();
        Employee[] result = list.searchEmployeesByAge(age);
        if (result != null) {
            System.out.println("Employee with Age " + age + " : ");
            for (Employee employee : result) {
                System.out.println("\t"+employee.getEmployeeID()+"\t\t"+employee.getName(
)+"\t\t"+employee.getAge()+"\t\t"+employee.getSalary()+"\t");
            }
        } else {
            System.out.println("No Employee found with age " + age);
        }
    }
}
```

Output:

```
Student Number:PS/2017/280 | Student Name:Kamal | Gender:M | Grade:B
Student Number:PS/2017/149 | Student Name:Nirmal | Gender:F | Grade:B
Student Number:PS/2017/045 | Student Name:Sarath | Gender:M | Grade:C
Student Number:PS/2017/73 | Student Name:Kasuni | Gender:F | Grade:A
Student Number:PS/2017/301 | Student Name:Chanaka | Gender:M | Grade:C
Student Number:PS/2017/312 | Student Name:Akila | Gender:F | Grade:A
Student Number:PS/2017/105 | Student Name:Dasuni | Gender:F | Grade:A
Student Number:PS/2017/016 | Student Name:Amal | Gender:M | Grade:A
Student Number:PS/2017/198 | Student Name:Binura | Gender:M | Grade:B
Student Number:PS/2017/151 | Student Name:Sithara | Gender:F | Grade:A
```

After sorting:-

```
Student Number:PS/2017/73 | Student Name:Kasuni | Gender:F | Grade:A
Student Number:PS/2017/312 | Student Name:Akila | Gender:F | Grade:A
Student Number:PS/2017/105 | Student Name:Dasuni | Gender:F | Grade:A
Student Number:PS/2017/016 | Student Name:Amal | Gender:M | Grade:A
Student Number:PS/2017/151 | Student Name:Sithara | Gender:F | Grade:A
Student Number:PS/2017/280 | Student Name:Kamal | Gender:M | Grade:B
Student Number:PS/2017/149 | Student Name:Nirmal | Gender:F | Grade:B
Student Number:PS/2017/198 | Student Name:Binura | Gender:M | Grade:B
Student Number:PS/2017/045 | Student Name:Sarath | Gender:M | Grade:C
Student Number:PS/2017/301 | Student Name:Chanaka | Gender:M | Grade:C
```

Enter Grade: **C**

Students with Grade C:

```
PS/2017/045 | Sarath | M | C
PS/2017/301 | Chanaka | M | C
```