

Problem Statement I

The Staff selection committee decides every applicant must appear selection exam in three subjects as per applicants choice of subjects. They must qualify minimum 70% of total Individual subject pass mark is 50 out of 100. You need to show all passed applicants name, subject-wise marks, total and percentage in the ascending order of the name of applications

You need to create a class Applicant with following members String name, Integer subject1, Integer subject2, Integer subject3, Integer total, Integer percentage Create getter and setter method, override toString() with String.format("%-10s %-5s %- 5s %-5s %-10s %-10s",....);

Create class Main with

- a) public static void main(String arg[]):- It will accept first number of applicants details to enter. Then accept each applicant name, marks for subject1,subject2 and subject3 in a comma separate(,) format eg: Amit,89,65,73 Store the Applicants' details in an array. Finally display passed applicants details
- b) Public static int totalCalculation (Applicant applicant)-> return total by adding 3 subject marks. If any subject's mark is below 50 return 0.
- c) Public static int percentageCalculation (int total)-> return percentage by calculating (total/300)*100.

```
import java.util.Arrays;
import java.util.Scanner;

class Applicant {
    private String name;
    private Integer subject1;
    private Integer subject2;
    private Integer subject3;
    private Integer total;
    private Integer percentage;

    public String getName() {
        return name;
    }
}
```

```
public void setName(String name) {  
    this.name = name;  
}
```

```
public Integer getSubject1() {  
    return subject1;  
}
```

```
public void setSubject1(Integer subject1) {  
    this.subject1 = subject1;  
}
```

```
public Integer getSubject2() {  
    return subject2;  
}
```

```
public void setSubject2(Integer subject2) {  
    this.subject2 = subject2;  
}
```

```
public Integer getSubject3() {  
    return subject3;  
}
```

```
public void setSubject3(Integer subject3) {  
    this.subject3 = subject3;  
}
```

```
public Integer getTotal() {  
    return total;  
}
```

```
public void setTotal(Integer total) {  
    this.total = total;  
}
```

```
public Integer getPercentage() {  
    return percentage;  
}
```

```
public void setPercentage(Integer percentage) {  
    this.percentage = percentage;  
}
```

```
@Override
```

```
public String toString() {  
    return String.format("%-10s %-5s %-5s %-5s %-10s %-10s",  
        name, subject1, subject2, subject3, total, percentage);  
}  
}
```

```
public class Main {  
    public static void main(String[] args) {  
        Scanner scanner = new Scanner(System.in);  
        System.out.print("Enter the number of applicants: ");  
        int numApplicants = scanner.nextInt();  
        scanner.nextLine(); // Consume newline  
  
        Applicant[] applicants = new Applicant[numApplicants];  
  
        for (int i = 0; i < numApplicants; i++) {  
            System.out.print("Enter applicant details (Name, Subject1, Subject2, Subject3): ");  
            String[] details = scanner.nextLine().split(",");  
            Applicant applicant = new Applicant();
```

```

        applicant.setName(details[0]);
        applicant.setSubject1(Integer.parseInt(details[1]));
        applicant.setSubject2(Integer.parseInt(details[2]));
        applicant.setSubject3(Integer.parseInt(details[3]));
        applicant.setTotal(totalCalculation(applicant));
        applicant.setPercentage(percentageCalculation(applicant.getTotal()));
        applicants[i] = applicant;
    }

    System.out.println("\nPassed Applicants Details:");
    System.out.println(String.format("%-10s %-5s %-5s %-5s %-10s %-10s",
        "Name", "Sub1", "Sub2", "Sub3", "Total", "Percentage"));
    Arrays.stream(applicants)
        .filter(applicant -> applicant.getPercentage() >= 70)
        .sorted((a1, a2) -> a1.getName().compareTo(a2.getName()))
        .forEach(System.out::println);
}

public static int totalCalculation(Applicant applicant) {
    int total = applicant.getSubject1() + applicant.getSubject2() + applicant.getSubject3();
    if (applicant.getSubject1() < 50 || applicant.getSubject2() < 50 ||
applicant.getSubject3() < 50) {
        return 0;
    }
    return total;
}

public static int percentageCalculation(int total) {
    return (int) ((total / 300.0) * 100);
}
}

```