

Solution

Set A:

```
import java.util.Scanner;
public class AthleteEvaluation {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int attendance = sc.nextInt();
        int score1 = sc.nextInt();
        int score2 = sc.nextInt();
        int score3 = sc.nextInt();
        // Check attendance & any score < 50
        if (attendance < 70) {
            System.out.println("Disqualified due to low attendance");
        } else if (score1 < 50 || score2 < 50 || score3 < 50) {
            System.out.println("Needs Improvement in Event(s)");
        } else {
            // Find highest, second highest and lowest
            int highest;
            int lowest;
            int second;
            // Compare scores to find highest
            if (score1 >= score2 && score1 >= score3) {
                highest = score1;
                if (score2 >= score3) {
                    second = score2;
                    lowest = score3;
                } else {
                    second = score3;
                    lowest = score2;
                }
            } else if (score2 >= score1 && score2 >= score3) {
                highest = score2;
                if (score1 >= score3) {
                    second = score1;
                    lowest = score3;
                } else {
                    second = score3;
                    lowest = score1;
                }
            } else {
                highest = score3;
                if (score1 >= score2) {
                    second = score1;
                }
            }
        }
    }
}
```

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        lowest = score2;
    } else {
        second = score2;
        lowest = score1;
    }
}
// Calculate weighted total
double total = 0.5 * highest + 0.3 * second + 0.2 * lowest;
// Decide category
if (total >= 85) {
    System.out.println("Selected for Advanced Category");
} else if (total >= 70) {
    System.out.println("Selected for Intermediate Category");
} else {
    System.out.println("Selected for Beginner Category");
}
}
}
}

```

Set B

```

import java.util.Scanner;
public class RoboticsShortlisting {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int attendance = sc.nextInt();
        int score1 = sc.nextInt();
        int score2 = sc.nextInt();
        int score3 = sc.nextInt();
        //Check attendance & check any score <50
        if (attendance < 90) {
            System.out.println("Not shortlisted due to low attendance");
        }
        else if (score1 < 50 || score2 < 50 || score3 < 50) {
            System.out.println("Poor Performance");
        }
        else {
            // Find highest and second-highest
            int highest = score1;
            int second = score2;
            if (score2 > highest) {
                highest = score2;
                second = score1;
            }
        }
    }
}

```

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    if (score3 > highest) {
        second = highest;
        highest = score3;
    } else if (score3 > second) {
        second = score3;
    }
    //Calculate combined score
    double combinedScore = highest + 0.5 * second;
    //Decide category
    if (combinedScore >= 130) {
        System.out.println("Shortlisted for Nationals");
    } else if (combinedScore >= 100) {
        System.out.println("Shortlisted for Regionals.");
    } else {
        System.out.println("Not shortlisted");
    }
}
}
}

```