Lab 4 (Optional Questions)
Flow control (I) – Conditional statements

Question-1.

Write a program to calculate the effective scores of six judges in a sport event. To get the effective score, we needs to exclude the two highest scores and two lowest scores first. Then the average value of the remaining scores is the effective score.
The input will include six numbers, which is the score of every judge.

Expected Outcomes

Example
Enter Value of each score: 4 5 5 3 7 6 The effective score is: 5

Question-2.

Write a program to judge whether the two input straight lines have any intersections. The input data includes the coordinate of four points. First two points are on the first line, while the remaining two are the other line. We may say if the difference between the slopes of the two lines are less than 0.0001, the two lines are parallel, which means that they have no intersections.

Expected Outcomes

Example 1
Enter the points on the first line: 3 4 6 7 Enter the points on the second line: 2 0 0 2 The two straight lines have an intersection.
Example 2
Enter the points on the first line: 4 0 4 6 Enter the points on the second line: 2 4 2 -4 The two straight lines have no intersections.

Note: we explain the meaning of Example 1 as the demonstration of the input. 3 is the x coordinate of the first point on the first line, while 4 is the y coordinate of the point. We can know that the first point is (3, 4). Then the input gives the coordinate of the second point on the first line in the same way, which means the coordinate of the second point is (6, 7). Then the coordinates of the two points on the second line are given in the exact same format. The two points on the second line are (2, 0), and (0, 2).