1. What are the most challenging aspects of the coursework task?

Ans: Firstly, java is the most important programming language that we are learning in this module. Java language is new to us at starting, and after a week this language is used-to to us. The aspects of this coursework task are before this we have not listened to the term divided and conquer, this term is new, and this is the first challenge for this coursework task. Another challenge for this coursework task is we should not use the main method to get input or corresponding output because we usually use the main method for taking inputs. Before this, we have not done any coding challenges before, and this is also a problem for us at beginning of the course works. we have not done this level of complex problem before this coursework.

2. How did you go about completing the task?

Ans: The task is based on merge and conquer. In this method, we must divide the total number of arrays into two halves until the array becomes the smallest unit after dividing the total array into a single unit then starts the merging element based on a comparison of the size of elements, and finally combined them with another list in a sorted manner and this is a how I understood the concepts of this method. Now the concepts of merge and sorts methods have been written in java code. We must declare an array and variable as beginning, middle, and end. if the end is greater than the beginning, then find the middle point of the array and have call merge sort for the first half and again for the second half and again we have to merge the two halves sorted in the first half and second half.

3. What have you learned over the course of completing this coursework task?

Ans: This coding challenge helps to boost our knowledge of java programming and program-solving ability. There are many several things that I have learned by completing the course task of merging and sorting in java. Sorting the algorithm, merging, and sorting is the most important and popular algorithm that is mainly used for sorting data. It is a concept of divide and conquers algorithm in this method the array or inputs is divided into small chunks and then again, the inputs should arrange in sorted order. And another topic that I learned in this course is recursion which is used in merge and sort methods it is the process when the function is called with a small version of the problem. This allows the algorithm to into smaller pieces until the problem is not solved. Overall, this problem helps to increase our research skills on a certain topic.