1. **What is the most challenging aspect of the coursework task?**
   Ans. Merge sort is a sorting algorithm that works by dividing an array of data into smaller subarrays, sorting each subarray, and then merging the sorted subarrays back together to form a fully sorted array. It is a divide and conquer algorithm that is known for its efficiency and stability. I felt overwhelmed and unsure of how to approach the coding challenge because it was my first time facing something like this. However, after researching and learning about the concept of merge sort, I found that implementing it was the most difficult part for me. I struggled with understanding the concept and determining where to use certain classes and statements. Additionally, the debugging process was time-consuming because I had to fix many errors in my code, which required me to understand and apply the divide and conquer principle.

   2. How did you go about completing the task?
   Ans. Firstly, I needed to understand the concept of merge sort before I began coding. To do this, I researched the algorithm online, watched tutorial videos, and practiced solving problems that involved merge sort. This helped me to understand the fundamental principles of the algorithm. The next step was to break down the problem into smaller pieces. This involved dividing the main task into more manageable sub-tasks that were easier to understand and solve. For example, I started by writing a function that could sort a single subarray. This function would later be integrated into the main merge sort function, which would handle the task of sorting the entire array. Breaking down the problem into smaller pieces made it easier for me to understand the steps involved and to write code that was more organized and easier to debug.

   3. What have you learned over the course of completing this coursework task?
   Ans. While learning merge sort, I gained an understanding of how the algorithm works, including the divide and conquer principle that it uses to sort an array. I learned the steps involved in implementing the algorithm, such as dividing the array into subarrays, sorting the subarrays, and merging the sorted subarrays back together. I also learned about important concepts related to sorting algorithms, such as recursion and how to avoid infinite recursion. Overall, the process of learning merge sort helped me to gain a deeper understanding of the principles and techniques involved in sorting data. I challenged myself by attempting to program and I learned that it is not always easy. To be successful, we must understand how things can be different and be willing to research and find solutions to errors that we encounter. I gained this understanding while completing a coursework task in programming.