Question 1: A screenshot of a computer

AI-generated content may be incorrect.

Question 2:

Review. Nothing to submit.

Question 3:

Compared to the original code. My code solved the issue by changing up the code a bit to continuously keep prompting the user to input and dynamically resizes the allocated array when the user inputs a prompt for it to need more space. At the beginning the code allocated memory for a certain number of elements depending on the user input. But now, as the user enters numbers, the program checks if the array is full, and if it is, then it reallocates more memory using the “realloc()” function. This allows the program to handle any number of inputs given by the user without exceeding memory limits. By resizing the array when prompted the program it allows the program manage the memory and allowing the user to enter more data.

Question 4:

A screenshot of a computer program

AI-generated content may be incorrect.

Question 5: Object-oriented programming is an object where it’s sort of like a bundle where it contains both data and a functions that work on the data. It holds both the information and the tools needed to work with that data. A python list is an object because it sores data and also includes functions like “append()” and “sort()” that help manage that data provided in the list. When dealing with python you don’t have to worry about memory management because python automatically does it for you. Which makes it easy to work with python lists because the complex bits are hidden behind the easy to understand functions.

Question 6:

Using linked lists help with dynamic memory by letting us add or remove nodes or elements without worrying about limitations such as size. Each node is created separately, so we don’t have to resize or anything like that unlike arrays. This makes it easier to store data and manage memory when we aren’t sure how many elements we’re going to need.

Question 7:

Review: Nothing to submit.