# CS499 Milestone Three

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For this milestone, I’ve added logic into my newly recreated Travlr Getaways fullstack web application to include a dropdown menu that uses a linked list and a merged sort algorithm to sort the available trips by fields such as start date, end date, and price. This includes some new files under a new backend\utils folder including LinkedList.js to define the nodes, and LinkedListSortingAlgs for the sorting logic. UseTripStore’s fetchTrips logic was updated to pass in the dropdown’s value to the api url, tripController’s getAllTrips was updated to perform the sorting and return the final dataset, and Homepage’s HTML was updated to include the dropdown for the user to select.

As a common accessibility feature with many sites, it made sense to include while also being a practical way of meeting the enhancement’s requirements despite the application using postgreSQL, which isn’t easily application to the usage of algorithms. The inclusion of this covers a very succinct and clear logic, showcasing my ability to employ strategies for building collaborative environments that enable diverse audiences to support organizational decision making in the field of computer science, and to design and evaluate computing solutions that solve a given problem using algorithmic principles and computer science practices and standards appropriate to its solution, while managing the trade-offs involved in design choices by my usage of merge sorting the fields into a linked list for easy sorting. This could easily be expanded to other fields and helps both the client and their customers find trips.

During the process I was mentally thinking it would take as much time and effort as the first enhancement, which in hindsight didn’t make sense since that was building an entire application versus adding functionality to that application. However, my data structures and algorithms class was a few years ago now, so I did need to refresh my memory of it, but that was always pretty straightforward for me so it didn’t cause many issues.