

Software specification

First, the program asks user to input the length of the array for coupons, if nothing is entered, or the “skip” button is clicked, the program will instantiate an array with a length of 30.

Then the program asks user to import a .txt file with the information of coupons. After that, the user can input new coupon manually. All the coupons will first put into a linked list, and then copied to the array.

The program can show all the coupon in a table, and if the sort check box is selected, the program will sort the array first, and then show all the sorted coupons in a table.

The program can search coupon with given attributes, with both linear search and binary search. The search function can find multiple matched coupons. The result will show in a table. If nothing found, the table will show the times of both linear and binary search.