

In this book list mean value index we are getting a book not the single integer value, so what we can do is. We can index this and we can take the first element of this thing.. we have to arrange this books according to the cost value. So simply we have to add the square bracket and one for each of the case.. There are various algorithms to sort a list of data and the thing we just saw is the selection sort algorithm for sorting the list. here we basically check for the minimum element and put it at the first position. Then similarly, we do for the remaining list and like this we get an sorted list, so we 'll learn more about this in our future lectures. When we will discuss the main concept of sorting searching. defaultly it would be 500, but if you have. To filter this according to some value I can directly provide this value in this function and it should return me. The count so this is count 5. Why because 300 400, 500 and this all elements so similarly. If I put here 400, then I would get 4 element so this becomes a flexible code..

A class is used for creating a structure for the class book. a class would have two properties first of all name and second is the cost. to access the properties.

We have an init function. This is a magic function given by the Python. Whenever an object is created. It would take these two parameters name and cost and create an object.

for that we have to use a for-loop so what we can do is for book in unique underscore book list. list so if I execute this here you can see main underscore underscore underscore. underscore underscore underscores object at some address. So here some address each book has a unique address. So if this both are same means we have an UH similar copy. instead of book list.

We have to loop through the return value from a separate book filter so this will. return a list. instead of using the book of one I can directly use book do cost.

So this is more readable as we are using object oriented programming, but yeah so this should work fine because we are printing the cost directly..

Question 4 | Group A | Data Structure Lab | SE Computer Engg | SPPU

Aledunol

The question number four from Group A is to write a Python program that computes the net amount remaining in the bank account based on transaction log from the console input.. This is the transaction log for format D100 W200, so withdrawal is not allowed. If balance is going negative. Write a function for withdraw and deposit D means deposit while W means withdraw. we need to create a storage bank account value so bank underscore balance which would be zero at the starting. Then we have to take the input or else yeah, so we will take input variable or what we can do is transaction log So transaction log equal to input so we 'll directly take input from the console, and we will print a message enter the transaction log transaction transaction log.. Whenever we get a comma in the character, we will separate this thing so. What we can do is? We can store this entry in some another variable, or we can put this into a list so let 's just create an entry list. So entry underscore list equal to empty list. on a new line. So D space, then the 1 then 0 0 comma space and again w and 1 0 0 so here we know whenever we get n comma we have to break this statement..

After the for loop completes we have to add the entry into entry list so entry list Eq not equal to append so enter release dot dot dot append entry. what is this doing this is ignoring this so what we can do is ignore this so we can add everything before this this is in the entry, so we 'll add this thing in the list again. We receive a comma.

search was created and why we use this more because it takes less time than. internal search. So yeah let 's just go back to our thing. we can use linear search as well as this antenna search to

find or search an element in a list so this would be all for this thing and let 's just meet in our next video. if last is equal equal equal to the key means we found that at the last position so we could return length of L minus 1..

Question 12 | Group A | Data Structure Lab | SE Computer Engg | SPPU

Aledutron

Question number 12 from Group B, which is to write a python program to store names and mobile numbers of your friend in sorted order on names search your friend from list using binary search.

insert a friend. If not present in the phone book Basically we have to search that person if he is not present. So first of all it depends how we store the values. we use sorted sorting algorithms

to sort sorted algorithms to do this so now this should be covered in future lectures How the sorting works but for now let 's just understand that we have given a sorted list so what we have to do

is basically or instead of just taking this complex number what we can do is just take very simple numbers so one two three, four, five, six, seven eight.. This is the basic working of how the binary

search works so here just a second. Let me just remove this example so here we have to perform something similar so here what I am doing is basically. I know this list is in sorted order so what I can

do is find the mid of this list. So here it starts with 1, 1 2 3, 4, 5, 6, 7. So if I check the midpoint it would be 2, which is 3, 5 and in the list we can't take any value. this we can directly reduce the half of the search space..

6 plus 7 gives me 13 13 by 2. Gives me 6. Now my middle point is 6. So here is the midpoint. if a of mid means the middle element is less than the key means it will always exist in the right part, so what

I have to do is. I can reduce the h now H is equal to mid minus 1. so what will I do is now I will calculate the mid-value so mid is equal to l plus h 0 plus 6 which is 6 divided by 2. Which I get is 3.

So first mate is 3. so what I have to do is. I will check whether key is same or not pi and 4 not same key is less than 5.. We have n pseudo code 2 so this is an pseudo-code B6 pseudocode and we have to implement.

So Yeah! Basically this will be implemented inside the loop because we are doing the same thing again and again and when this loop will stop at this condition, so L should be always less than H so Yeah

let 's just go back to our text editor..

The question is regarding the mobile number and name, but first let's just implement the simple binary search and then see how we can do this. What is recursion. Recursion is basically function calling