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Subject :- Project 7th Report

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I chose doubly linked list because i can easily go front and backward by it and

access previous nodes and traverse easily through the nodes.

Can easily get values and sort them unlike stack and queue where I will have to pop the 3 values

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1- Start a new game initializes the head of the list

2- add a new player is just like inserting a new value

to the doubly linked list by creating a new node and assigning it the new values

if list null assign to first value else make pointer towards head and then assign head to new value

3-Use Searching function to search for specific id and edit value of score

//loop through all linked list(by p=p->next) until stopping condition which is end of list if condition is true I update score and set bool to true to confirm score updated

if value not found return <<user not found

4-create max value and assign it the 1st value only if link is not with null and then loop until it reaches for the end of list

if you find a larger score assign max score and max name to it

if list is null print <<no players found

5-remove by id is similar to update id as i also search for the value then remove it by making the previous node's next towards the next node of the deleted node

create bool found to see if id entered is registered in program and set to true if i find and delete succefully else print not found user

-if value is not present print id not available(bool value to set to true if id found set to false if not found print id not found)

-if it's head make head on next node and free 1st---if it is last make head of previous = null (\*\*useful due to doubly linked)

6-print sorted ,i used a sorting function that sorts the list by bubble sort then displayed it again

/// the bubble sort 1-has swap function that replaces the two nodes with their details

2-swapped flag to check if swap occurs or list is sorted and end while loop

3- sort occurs that p loops all values multiple times where it sorts largest first at the end and then makes q point to it instead of null

then second largest to be before last and then q points at it and so on until no swaps are available and bool is 0

display: if no values prints no players available, loops through all elements and prints details

7- creates a new pointer at the list and adds up the sum of scores and counter till it reaches the end then divides sum by counter to get avg scores

if list empty print no scores found

8- ends the program by breaking out of infinity loop

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