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/**
 * @file Question 2.cpp
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 * @brief This program insert data at the end of the list
with O(1)
 * @date 2022-03-30
 */
#include <iostream>
using namespace std;

struct Node{
    string age;
    Node *next;
    Node* prev;
};

Node* head = NULL;
Node* tail;
Node* last;
Node* counter;

int display(){
    cout << endl;
    if (counter == 0){
        cout << "No data!\n\n";
        return 0;
    }
    Node *temp = head;
    while(temp != NULL){
        cout << temp->age << " ";
        temp = temp->next;
    }
    cout << endl << endl;
    return 0;
}

Node* createNode(){
    Node* newNode = new Node;
    cout << "Age: ";
    cin >> newNode->age;
    cout << endl;
    newNode->next = NULL;
    newNode->prev = NULL;
    counter++;
    return newNode;
}

void insertWithOrderZero(){
    if (head == NULL){
        last = createNode();
        head = last;
        tail = last;
    } else {
        last = createNode();
        tail->next = last;
        last->prev = tail;
        tail = last;
    }
}

int main(){
    cout << "This program insert a data at the end of the
list with order zero!\n\n";
    char ch;
    while(true){
        cout << "1. Insert\n"
        << "2. Display\n"
        << "3. Close program\n"
        << "Enter number: ";
        cin >> ch;
        switch (ch)
        {
            case '1':
                insertWithOrderZero();
                break;
            case '2':
                display();

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                break;
            case '3':
                return 0;
            default:
                cout << "Incorrect input!";
                return 0;
                break;
        }
    }
    return 0;
}

```