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1 #include <iostream>
2 #include <fstream>
3 #include <sstream>
4 using namespace std;
5
6 struct node {
7     int acctNo;
8     string name;
9     float balance;
10    struct node* next;
11 };
12 void showBalance(struct node* head) {
13     int accNo;
14     cout << "Enter Account Number: ";
15     cin >> accNo;
16     struct node* temp = head;
17     while (temp != NULL) {
18         if (temp->acctNo == accNo) break;
19         temp = temp->next;
20     }
21     if (temp == NULL)
22         cout << "Invalid Account Number\n";
23     else
24         cout << temp->name << ", your balance is " << temp->balance << endl;
25 }
26 void deposit(struct node* head) {
27     int accNo;
28     cout << "Enter Account Number: ";
29     cin >> accNo;
30     struct node* temp = head;
31     while (temp != NULL) {
32         if (temp->acctNo == accNo) break;
33         temp = temp->next;
34     }
35     if (temp == NULL)
36         cout << "Invalid Account Number\n";
37     else {
38         float amt;
39         cout << "Enter amount to be deposited: \n";
40         cin >> amt;
41         temp->balance += amt;
42         cout << temp->name << ", your balance is " << temp->balance <<
43             endl;
44     }
45 }
46 void withdraw(struct node* head) {
47     int accNo;
48     cout << "Enter Account Number: ";
49     cin >> accNo;
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49     struct node* temp = head;
50     while (temp != NULL) {
51         if (temp->acctNo == accNo) break;
52         temp = temp->next;
53     }
54     if (temp == NULL)
55         cout << "Invalid Account Number\n";
56     else {
57         float amt;
58         cout << temp->name << ", how much would you like to withdraw? ";
59         cin >> amt;
60         if (amt > temp->balance) {
61             cout << "Not enough balance\n";
62             return;
63         }
64         temp->balance -= amt;
65         cout << temp->name << ", your new balance is " << temp->balance << "\n";
66     }
67 }
68 void showAll(struct node* head) {
69     struct node* temp = head;
70     cout << "All->";
71     while (temp != NULL) {
72         cout << temp->acctNo << ", " << temp->name << "-> ";
73         temp = temp->next;
74     }
75     cout << "NULL\n";
76 }
77 void closeAcc(struct node* head) {
78     int accNo;
79     cout << "Enter Account Number: ";
80     cin >> accNo;
81     if (head->acctNo == accNo) {
82         cout << head->name;
83         head = head->next;
84         cout << ", we closed your account\n";
85         return;
86     }
87     struct node* temp = head;
88     struct node* prev = head;
89     while (temp != NULL) {
90         if (temp->acctNo == accNo) break;
91         prev = temp;
92         temp = temp->next;
93     }
94     if (temp == NULL)
95         cout << "Invalid Account Number\n";
96     else {
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97         cout << temp->name;
98         prev->next = temp->next;
99         temp->next = NULL;
100         free(temp);
101         cout << ", we closed your account\n";
102     }
103 }
104 int main() {
105     struct node* head = NULL;
106     head = new struct node;
107     //dummy node
108     head->acctNo = -1;
109     head->name = " ";
110     head->balance = 0.0;
111     struct node* temp = head;
112     ifstream file("data.txt");
113     string line;
114     while (getline(file, line)) {
115         struct node* neww = NULL;
116         neww = new struct node;
117         stringstream ss(line);
118         int a;
119         ss >> a;
120         string n;
121         ss >> n;
122         float bal;
123         ss >> bal;
124         neww->acctNo = a;
125         neww->name = n;
126         neww->balance = bal;
127         neww->next = NULL;
128         temp->next = neww;
129         temp = temp->next;
130     }
131     char c;
132     do {
133         int ch;
134         cout << "Please enter your choice(1-5): ";
135         cin >> ch;
136         switch (ch) {
137             case 1:
138                 showBalance(head->next);
139                 break;
140             case 2:
141                 deposit(head->next);
142                 break;
143             case 3:
144                 withdraw(head->next);
145                 break;
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146         case 4:
147             showAll(head->next);
148             break;
149         case 5:
150             closeAcc(head->next);
151             break;
152         default:
153             cout << "Invalid choice";
154             break;
155     }
156
157     cout << "Continue? (y/n)" << endl;
158     cin >> c;
159 } while (c != 'n');
160 return 0;
161 }
```