```cpp
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//Name                          Sai Chaitanya Kilambi
//Course                        CPSC 131 Data Structures, Fall, 2022
//Assignment                    No.10 question:1
//Due date                      11/9/2022
// Purpose:
// Insert all data from the file into an ordered Linked list
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// list of libraries
//
//importing the required libraries
#include <iostream>
#include <fstream>
#include <sstream>
using namespace std;

struct node {
    int acctNo;
    string name;
    float balance;
    struct node* next;
};
void showBalance(struct node* head) {
    int accNo;
    cout << "Enter Account Number: ";
    cin >> accNo;
    struct node* temp = head;
    while (temp != NULL) {
        if (temp->acctNo == accNo) break;
        temp = temp->next;
    }
    if (temp == NULL)
        cout << "Invalid Account Number\n";
    else
        cout <<temp->name<< ", your balance is " << temp->balance << endl;
}
void deposit(struct node* head) {
    int accNo;
    cout << "Enter Account Number: ";
    cin >> accNo;
    struct node* temp = head;
    while (temp != NULL) {
        if (temp->acctNo == accNo) break;
        temp = temp->next;
    }
    if (temp == NULL)
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47          cout << "Invalid Account Number\n";
48      else {
49          float amt;
50          cout << "Enter amount to be deposited: \n";
51          cin >> amt;
52          temp->balance += amt;
53          cout << temp->name <<", your balance is " << temp->balance <<
              endl;
54      }
55  }
56  void withdraw(struct node* head) {
57      int accNo;
58      cout << "Enter Account Number: ";
59      cin >> accNo;
60      struct node* temp = head;
61      while (temp != NULL) {
62          if (temp->acctNo == accNo) break;
63          temp = temp->next;
64      }
65      if (temp == NULL)
66          cout << "Invalid Account Number\n";
67      else {
68          float amt;
69          cout <<temp->name << ", how much would you like to withdraw? ";
70          cin >> amt;
71          if (amt > temp->balance) {
72              cout << "Not enough balance\n";
73              return;
74          }
75          temp->balance -= amt;
76          cout << temp->name << ", your new balance is " << temp->balance <<
               endl;
77      }
78  }
79  void showAll(struct node* head) {
80      struct node* temp = head;
81      cout << "All->";
82      while (temp != NULL) {
83          cout << temp->acctNo << "," << temp->name << "->" ;
84          temp = temp->next;
85      }
86      cout << "NULL\n";
87  }
88  void closeAcc(struct node* head) {
89      int accNo;
90      cout << "Enter Account Number: ";
91      cin >> accNo;
92      if (head->acctNo == accNo) {
93          cout << head->name;
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94          head = head->next;
95          cout << ", we closed your account\n";
96          return;
97      }
98      struct node* temp = head;
99      struct node* prev = head;
100     while (temp != NULL) {
101         if (temp->acctNo == accNo) break;
102         prev = temp;
103         temp = temp->next;
104     }
105     if (temp == NULL)
106         cout << "Invalid Account Number\n";
107     else {
108         cout << temp->name;
109         prev->next = temp->next;
110         temp->next = NULL;
111         free(temp);
112         cout << ", we closed your account\n";
113     }
114 }
115 int main() {
116     struct node* head = NULL;
117     head = new struct node;
118     //dummy node
119     head->acctNo = -1;
120     head->name = " ";
121     head->balance = 0.0;
122     struct node* temp = head;
123     ifstream file("data.txt");
124     string line;
125     while (getline(file, line)) {
126         struct node* neww = NULL;
127         neww = new struct node;
128         stringstream ss(line);
129         int a;
130         ss >> a;
131         string n;
132         ss >> n;
133         float bal;
134         ss >> bal;
135         neww->acctNo = a;
136         neww->name = n;
137         neww->balance = bal;
138         neww->next = NULL;
139         temp->next = neww;
140         temp = temp->next;
141     }
142     char c;
```

```
143     do {
144         int ch;
145         cout << "Please enter your choice(1-5): ";
146         cin >> ch;
147         switch (ch) {
148         case 1:
149             showBalance(head->next);
150             break;
151         case 2:
152             deposit(head->next);
153             break;
154         case 3:
155             withdraw(head->next);
156             break;
157         case 4:
158             showAll(head->next);
159             break;
160         case 5:
161             closeAcc(head->next);
162             break;
163         default:
164             cout << "Invalid choice";
165             break;
166         }
167 
168         cout << "Continue? (y/n)" << endl;
169         cin >> c;
170     } while (c != 'n');
171     return 0;
172 }
```