

Assessment for Introduction to Loops

Task

The follow is to be completed to verify your learning. You should start with an empty project and copy in the given code.

1. The following code uses a structure and pointers to create a linked list. Write the printList function to print out the elements of the list.

```
// A simple C program for traversal of a linked list
#include <stdio.h>
#include <stdlib.h>

struct Node {
    int data;
    struct Node* next;
};

// This function prints contents of linked list starting from
// the given node
void printList(struct Node* n);

int main()
{
    struct Node* head = NULL;
    struct Node* second = NULL;
    struct Node* third = NULL;

    // allocate 3 nodes in the heap
    head = (struct Node*)malloc(sizeof(struct Node));
    second = (struct Node*)malloc(sizeof(struct Node));
    third = (struct Node*)malloc(sizeof(struct Node));

    head->data = 1; // assign data in first node
    head->next = second; // Link first node with second

    second->data = 2; // assign data to second node
    second->next = third;

    third->data = 3; // assign data to third node
    third->next = NULL;

    printList(head);

    return 0;
}
```

2. Now create a simple account structure that has an id, name, and balance. Create an array of this data type. Create a function to enter a set of accounts. Create a function to print out the data. Finally, create a function that will sort the array of accounts by the balance.

Here is an example of the Output:

Enter no of account holders<n>
3

Enter data for customer[1]
Enter <name>: Bob

Enter <accNo>: 124

Enter <balance>: 34

Enter data for customer[2]
Enter <name>: Biff

Enter <accNo>: 127

Enter <balance>: 30

Enter data for customer[3]
Enter <name>: Jane

Enter <accNo>: 130

Enter <balance>: 25

Details of the account sorted on balance
Customer[1]
Name: Bob
AccNo: 124
Balance: 34

Customer[2]
Name: Biff
AccNo: 127
Balance: 30

Customer[3]
Name: Jane
AccNo: 130
Balance: 25

Compile, Build, and debug your programs.

Take a Screen shot showing the terminal output.

Also submit your code.