Assessment for Introduction to Data Structures.

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. Create a program that uses two functions to enter the account information and then print out the account information. The main function is given, you will need to create the ReadInput and WriteOutput functions. Here is an example of a run of the program

---

Enter number of customers: 2

Enter data for 1 account holder:
Enter <name>: Bob

Enter <accNo>: 123

Enter <accType>: c

Enter <balance>: 34

Enter pdate<dd mm yy>: 02 03 20

Enter data for 2 account holder:
Enter <name>: Bill

Enter <accNo>: 124

Enter <accType>: s

Enter <balance>: 23

Enter pdate<dd mm yy>: 02 04 20

Name: Bob
Acc Num: 123
Account Type: c
Balance: 34
Date <ddmmyy>: 2/3/20

Name: Bill
Acc Num: 124
Account Type: s

Balance: 23
Date <ddmmyy>: 2/4/20

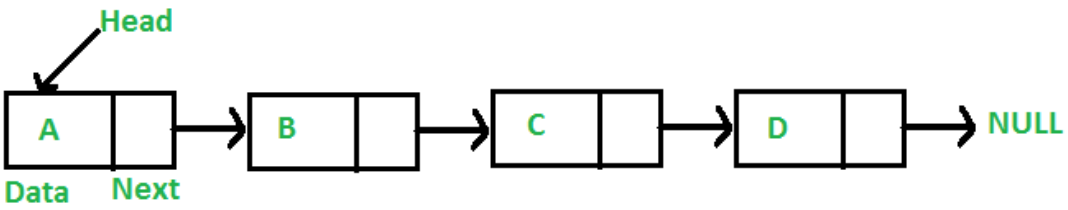
Here is the code:

```
#include <ti/devices/msp432p4xx/driverlib/driverlib.h>

/* Standard Includes */
#include <stdint.h>
#include <stdbool.h>
// fn decl
 void ReadInput(int n);
 void WriteOutput(int n);
 // struct declaration
 struct date
 {
 int dd;
 int mm;
 int yy;
 };
 struct Account
 {
 int accNo;
 char accType;
 char name[20];
 int bal;
 struct date pdate; // date of payment
 };
 struct Account cust[100];// declare an array of 100 customers

 void main()
 {
    int n;
    int i;
    printf("Enter number of customers: ");
    scanf("%d", &n);
 // read data into structure
    for (i=0;i<n;i++)
       ReadInput(i);
 //write output
    for (i=0;i<n;i++)
       WriteOutput(i);
 }// end of main
```

2. Now create a simple link list using a structure and pointers. Here is the fundamental structure of the link list:



Create the code and use malloc to create a linked list of 3 elements.

Hint: Here is how to create a new element using malloc

// 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));
```

Compile, Build, and debug your programs.

Take a Screen shot showing the terminal output.