Lab 8

1. Write a C++ program for ATM withdrawal System without using any function except main(). Please follow the following details.

A. CODE:

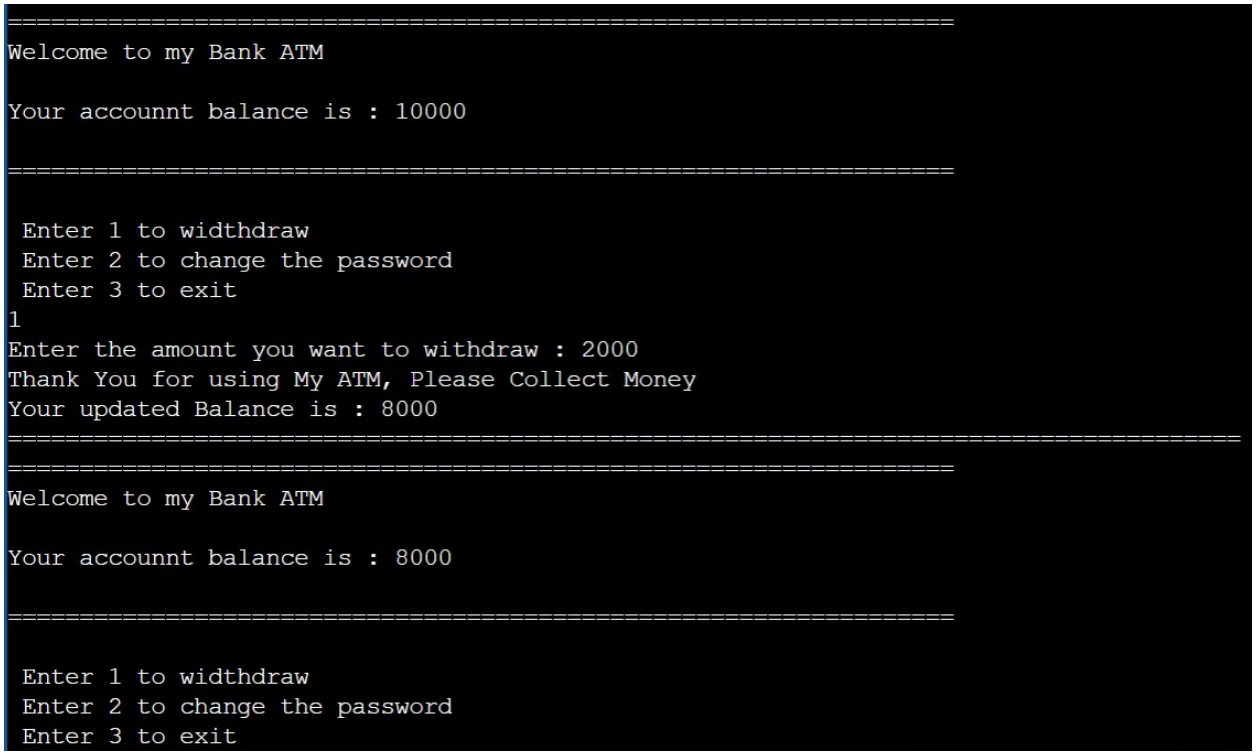
```
#include<iostream>
using namespace std;
class ATM
{
   private:
      int amt;
      string check;

   public:
      int bal;
      string pass;

      ATM()
      {
         bal=10000;
         pass="lohith";
      }

      void withdraw()
      {
         cout<<"Enter the amount you want to withdraw : ";
         cin>>amt;
         if(amt>bal)
         {
            cout<<"Insuffecient Balance";
```

```
        }
        else
        {
            bal-=amt;
            cout<<"Thank You for using My ATM, Please Collect
Money"<<endl;
            cout<<"Your updated Balance is : "<<bal<<endl;

cout<<"==========================================================
==================================";
        }
    }
    void changepasw()
    {
        cout<<"Enter the old password : ";
        cin>>check;
        if(check==pass)
        {
            cout<<"Enter your new password : ";
            cin>>pass;
        cout<<"You have successfully changed your password"<<endl;

cout<<"==========================================================
==================================";
        }
        else
        {
             cout<<"The password you entered is wrong ";
        }
     }
    ~ATM()
    {
      cout<<"Thank You ";
```

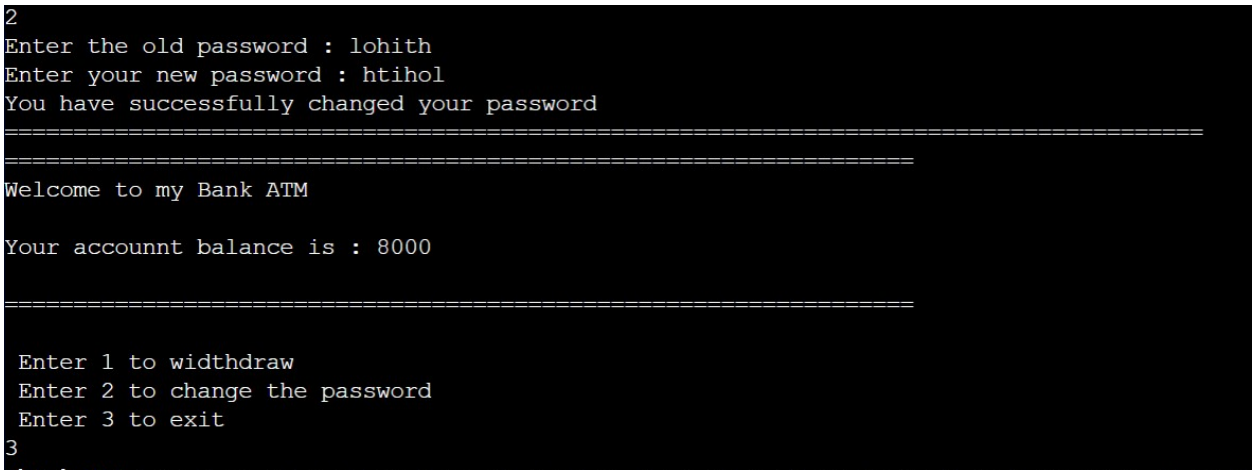
```
cout<<"================================================
========================================";
        }
};
int main()
{
    ATM a;
    string check ="";
    int key=0,amt;
    while(1)
    {

cout<<"\n================================================
================\n";
    cout<<"Welcome to my Bank ATM\n";
    cout<<"\nYour accounnt balance is : "<<a.bal<<endl;

cout<<"\n================================================
================\n";
    cout<<"\n Enter 1 to widthdraw\n Enter 2 to change the password\n
Enter 3 to exit\n";
    cin>>key;
    if(key==1)
    {
        a.withdraw();
    }
    else if(key==2)
    {
        a.changepasw();
    }
    else if(key==3)
    {
        break;
    }
```

```
    }
    a.~ATM();
}
```

SAMPLE INPUT AND SAMPLE OUTPUT:



```
==========================================================================
Welcome to my Bank ATM

Your accounnt balance is : 10000

==========================================================================

 Enter 1 to widthdraw
 Enter 2 to change the password
 Enter 3 to exit
1
Enter the amount you want to withdraw : 2000
Thank You for using My ATM, Please Collect Money
Your updated Balance is : 8000
==========================================================================
==========================================================================
Welcome to my Bank ATM

Your accounnt balance is : 8000

==========================================================================

 Enter 1 to widthdraw
 Enter 2 to change the password
 Enter 3 to exit
```



```
2
Enter the old password : lohith
Enter your new password : htihol
You have successfully changed your password
==========================================================================
==========================================================================
Welcome to my Bank ATM

Your accounnt balance is : 8000

==========================================================================

 Enter 1 to widthdraw
 Enter 2 to change the password
 Enter 3 to exit
3
```

2. Write a program in C++ to store the withdrawal and password changes sequentially (default value as the first node) in the above program using Linked List.

A. <u>CODE</u>:

```
#include<iostream>
using namespace std;
class ATM
{
    private:
        int amt;
        string check;

    public:
        int bal;
        string pass;

        ATM()
        {
            bal=10000;
            pass="lohith";
        }

        void withdraw()
        {
            cout<<"Enter the amount you want to withdraw : ";
            cin>>amt;
            if(amt>bal)
            {
                cout<<"Insuffecient Balance";
            }
            else
```

```
        {
            bal-=amt;
            cout<<"Thank You for using My ATM, Please Collect
Money"<<endl;
            cout<<"Your updated Balance is : "<<bal<<endl;

cout<<"==========================================================
===================================";
        }
    }
    void changepasw()
    {
        cout<<"Enter the old password : ";
        cin>>check;
        if(check==pass)
        {
            cout<<"Enter your new password : ";
            cin>>pass;
        cout<<"You have successfully changed your password"<<endl;

cout<<"==========================================================
===================================";
        }
        else
        {
             cout<<"The password you entered is wrong ";
        }
     }
    ~ATM()
    {
      cout<<"Thank You ";

cout<<"==========================================================
=========================================";
    }
```

```
};
struct balance
{
   int bal;
   struct balance *next;
}*head1,*temp1;
struct password
{
   string pass;
   struct password *next;
}*head2,*temp2;
int main()
{
   ATM a;
   string check ="";
   int key=0,amt;
   head1=(struct balance*)malloc(sizeof(struct balance));
   temp1=head1;
   temp1->bal=a.bal;
   temp1=temp1->next;
   head2=(struct password*)malloc(sizeof(struct password));
   temp2=head2;
   temp2->pass=a.pass;
   temp2=temp2->next;
   while(1)
   {

cout<<"\n================================================
================\n";
   cout<<"Welcome to my Bank ATM\n";
   cout<<"\nYour accounnt balance is : "<<a.bal<<endl;

cout<<"\n================================================
================\n";
```

```
    cout<<"\n Enter 1 to widthdraw\n Enter 2 to change the password\n
Enter 3 to exit\n";
    cin>>key;
    if(key==1)
    {
        a.withdraw();
        temp1=(struct balance*)malloc(sizeof(struct balance));
        temp1->bal=a.bal;
        temp1=temp1->next;
    }
    else if(key==2)
    {
        a.changepasw();
        temp2=(struct password*)malloc(sizeof(struct password));
        temp2->pass=a.pass;
        temp2=temp2->next;
    }
    else if(key==3)
    {
        break;
    }
    }
    a.~ATM();
}
```

SAMPLE INPUT AND SAMPLE OUTPUT:

```
==========================================================================
Welcome to my Bank ATM

Your accounnt balance is : 10000

==========================================================================

 Enter 1 to widthdraw
 Enter 2 to change the password
 Enter 3 to exit
1
Enter the amount you want to withdraw : 2000
Thank You for using My ATM, Please Collect Money
Your updated Balance is : 8000
==========================================================================
==========================================================================
Welcome to my Bank ATM

Your accounnt balance is : 8000

==========================================================================

 Enter 1 to widthdraw
 Enter 2 to change the password
 Enter 3 to exit
```

```
2
Enter the old password : lohith
Enter your new password : htihol
You have successfully changed your password
==========================================================================
==========================================================================
Welcome to my Bank ATM

Your accounnt balance is : 8000

==========================================================================

 Enter 1 to widthdraw
 Enter 2 to change the password
 Enter 3 to exit
3
```