BANKING SYSTEM

(USING LINKED LIST DATA STRUCTURE)

PROJECT IN C

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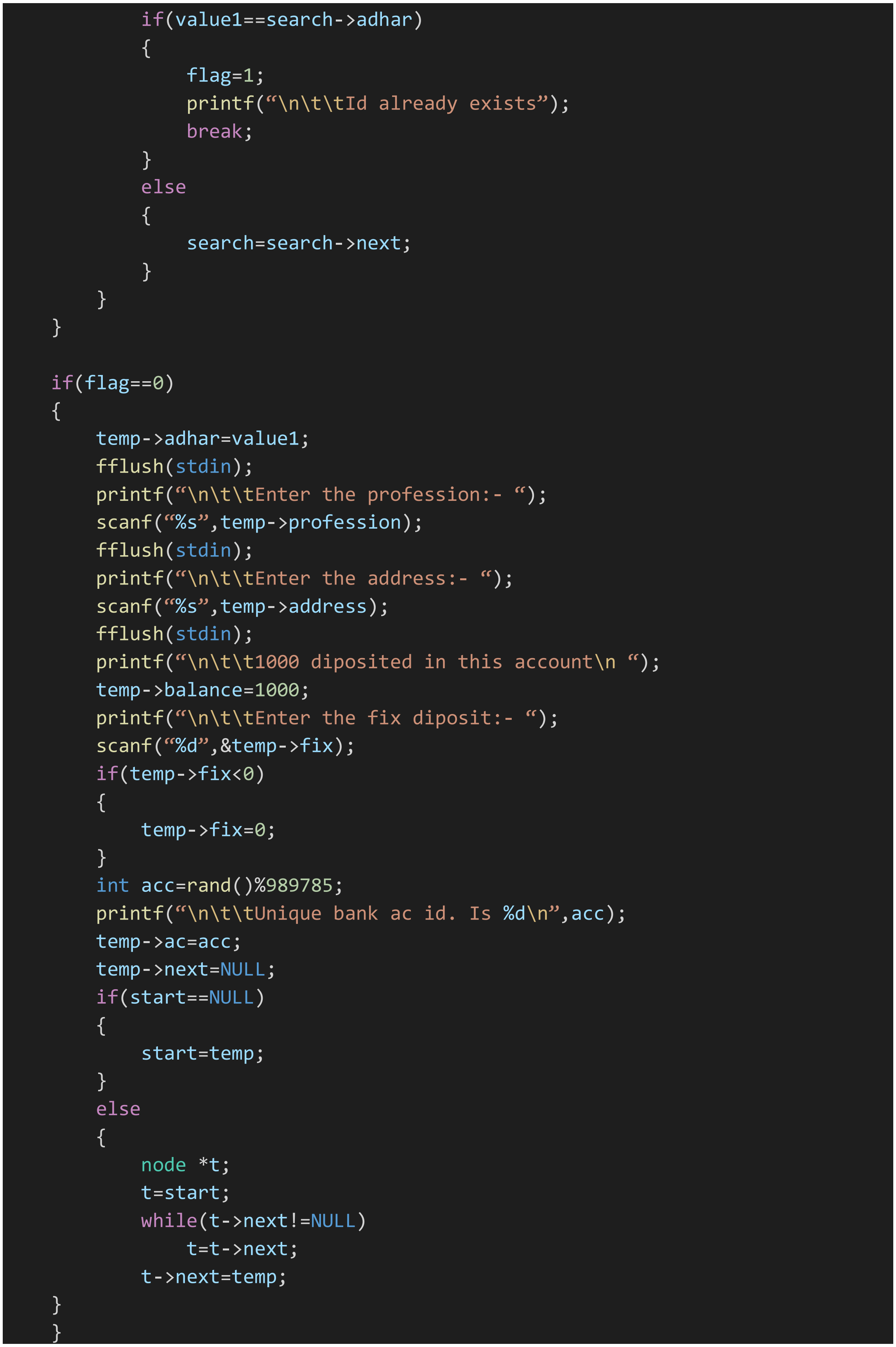
COMPUTER SCIENCE ENGINEERING

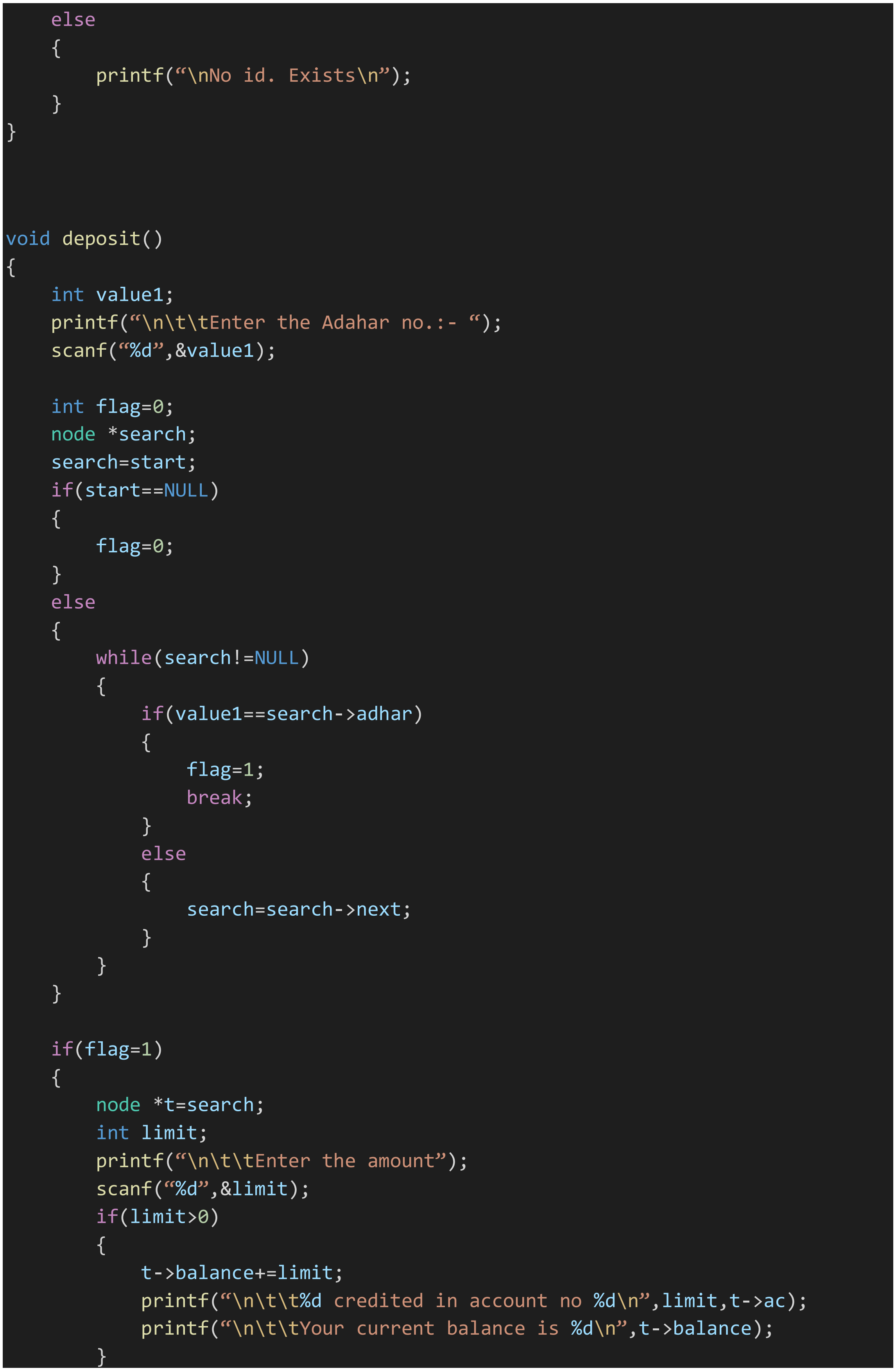
CODE:

```
#include<stdio.h>
#include<stdlib.h>
#include<conio.h>
typedef struct Bank{
    char name[100];
    int adhar;
    char profession[100];
    char address[1000];
    int balance;
    int fix;
    int ac;
    struct Bank *next;
    }node;

node *start=NULL;


node* createnode()
{
    node *n;
    n=(node*)malloc(sizeof(node));
    return(n);
}


void insert()
{
    node *temp,*prev;
    temp=createnode();
    int value1;
    char ch[100];
    printf(“\n\t\tEnter the name:- “);
    scanf(“%s”,temp->name);
    printf(“\n\t\tEnter the Adahar no.:- “);
    scanf(“%d”,&value1);

    int flag=0;
    node *search;
    search=start;
    if(start==NULL)
    {
        flag=0;
    }
    else
    {
        while(search!=NULL)
        {
```

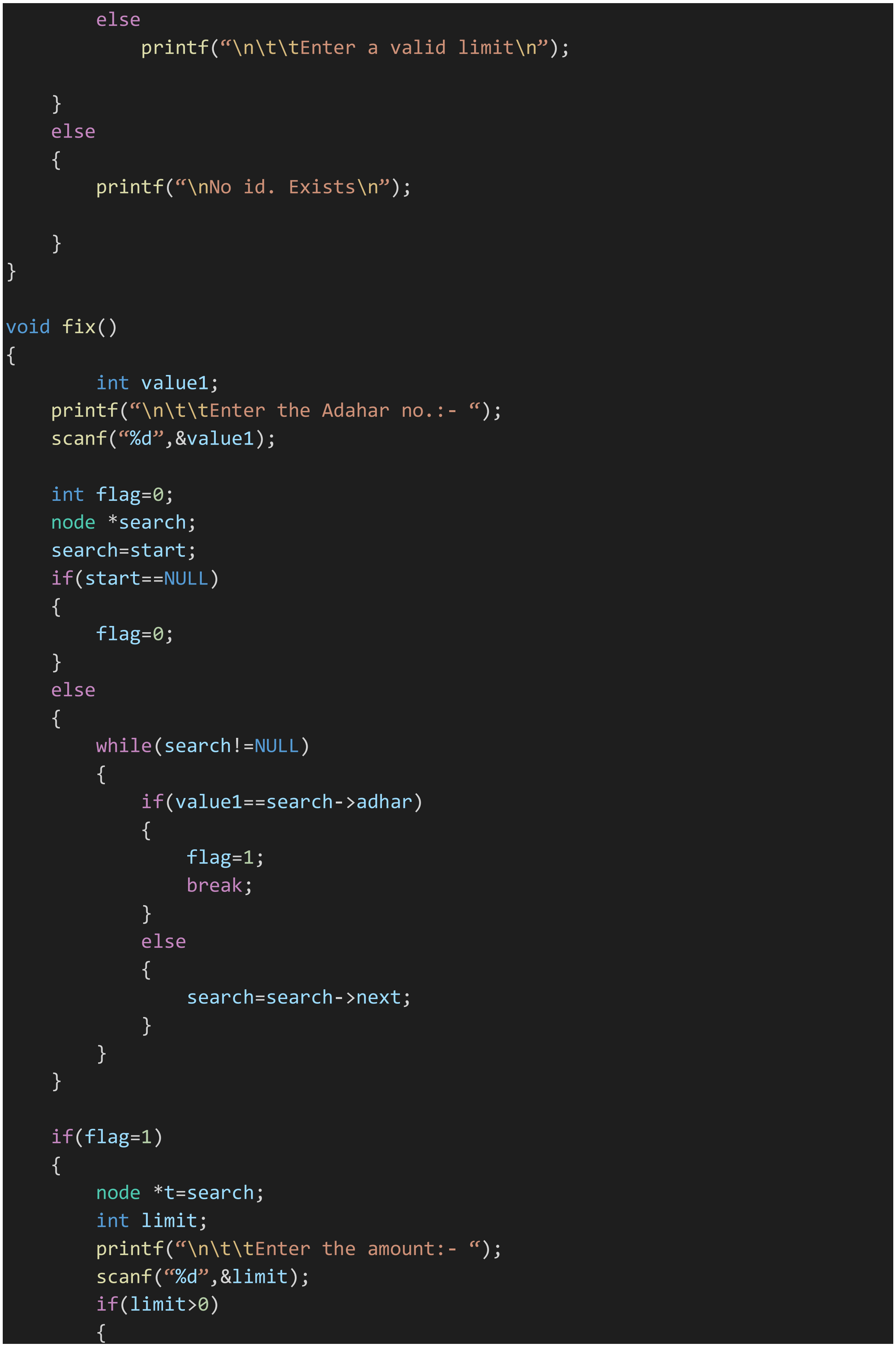


```
            if(value1==search->adhar)
            {
                flag=1;
                printf(“\n\t\tId already exists”);
                break;
            }
            else
            {
                search=search->next;
            }
        }
    }

    if(flag==0)
    {
        temp->adhar=value1;
        fflush(stdin);
        printf(“\n\t\tEnter the profession:- “);
        scanf(“%s”,temp->profession);
        fflush(stdin);
        printf(“\n\t\tEnter the address:- “);
        scanf(“%s”,temp->address);
        fflush(stdin);
        printf(“\n\t\t1000 diposited in this account\n “);
        temp->balance=1000;
        printf(“\n\t\tEnter the fix diposit:- “);
        scanf(“%d”,&temp->fix);
        if(temp->fix<0)
        {
            temp->fix=0;
        }
        int acc=rand()%989785;
        printf(“\n\t\tUnique bank ac id. Is %d\n”,acc);
        temp->ac=acc;
        temp->next=NULL;
        if(start==NULL)
        {
            start=temp;
        }
        else
        {
            node *t;
            t=start;
            while(t->next!=NULL)
                t=t->next;
            t->next=temp;
    }
    }
```

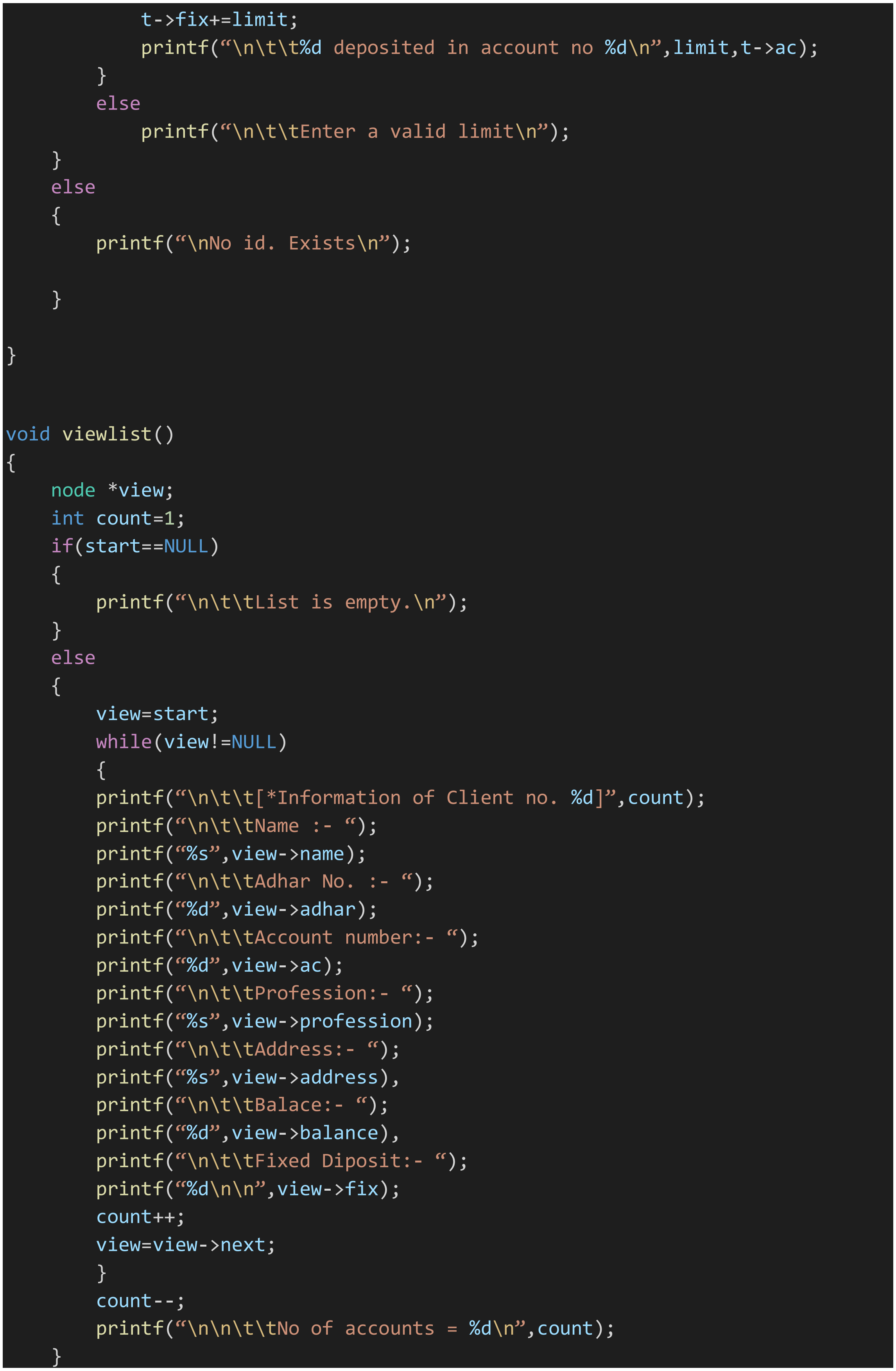
```
}



void widraw()
{
    int value1;
    printf(“\n\t\tEnter the Adahar no.:- “);
    scanf(“%d”,&value1);

    int flag=0;
    node *search;
    search=start;
    if(start==NULL)
    {
        flag=0;
    }
    else
    {
        while(search!=NULL)
        {
            if(value1==search->adhar)
            {
                flag=1;
                break;
            }
            else
            {
                search=search->next;
            }
        }
    }

    if(flag==1)
    {
        node *t=search;
        int limit;
        printf(“\n\t\tEnter the amount”);
        scanf(“%d”,&limit);
        if(limit>0 && limit<t->balance)
        {
            t->balance-=limit;
            printf(“\n\t\t%d debited from account no. %d\n”,limit,t->ac);
            printf(“\n\t\tYour current balance is %d\n”,t->balance);
        }
        else
            printf(“\n\t\tEnter a valid limit\n”);

    }
```



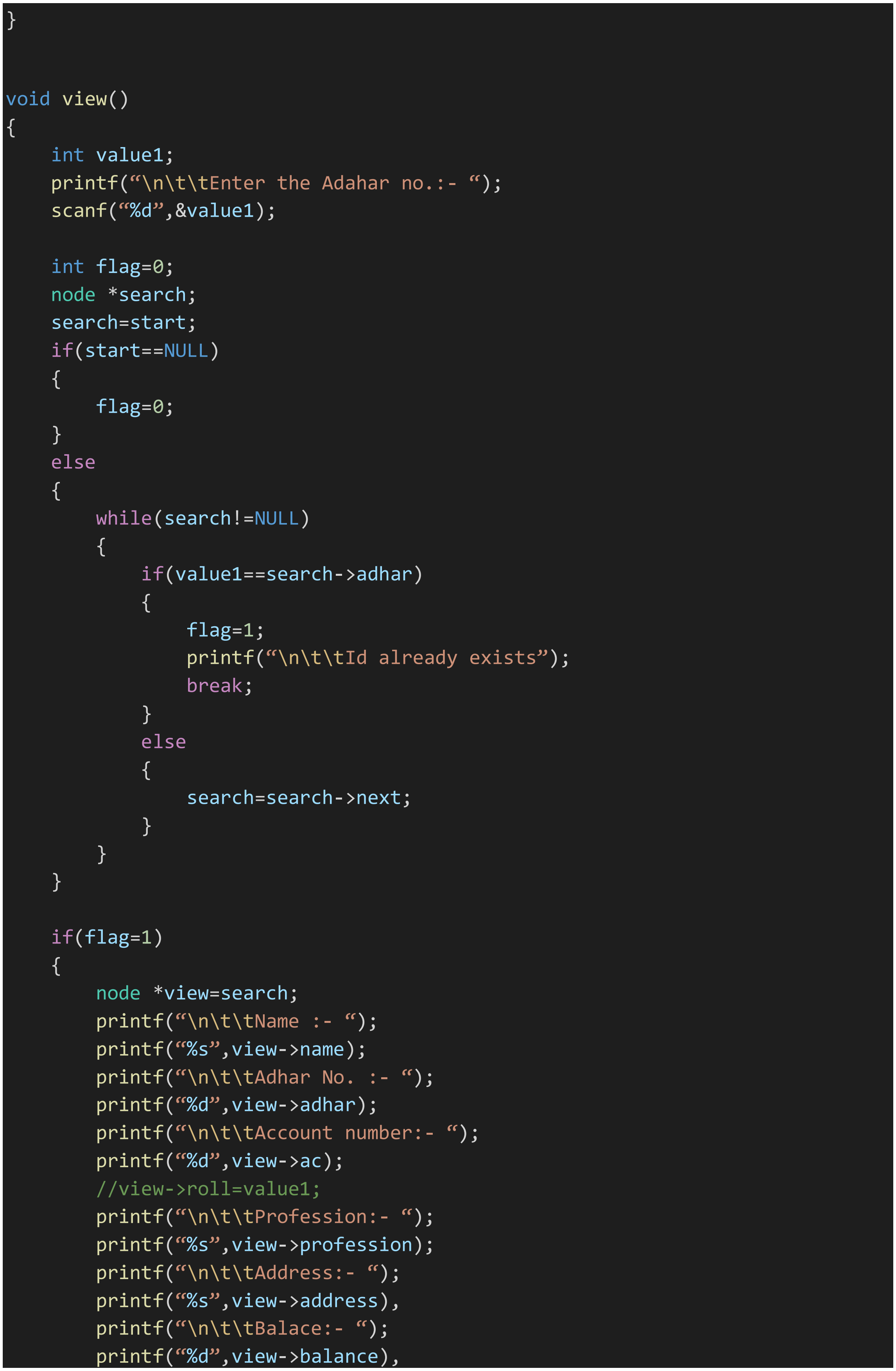
```
    else
    {
        printf(“\nNo id. Exists\n”);
    }
}



void deposit()
{
    int value1;
    printf(“\n\t\tEnter the Adahar no.:- “);
    scanf(“%d”,&value1);

    int flag=0;
    node *search;
    search=start;
    if(start==NULL)
    {
        flag=0;
    }
    else
    {
        while(search!=NULL)
        {
            if(value1==search->adhar)
            {
                flag=1;
                break;
            }
            else
            {
                search=search->next;
            }
        }
    }

    if(flag=1)
    {
        node *t=search;
        int limit;
        printf(“\n\t\tEnter the amount”);
        scanf(“%d”,&limit);
        if(limit>0)
        {
            t->balance+=limit;
            printf(“\n\t\t%d credited in account no %d\n”,limit,t->ac);
            printf(“\n\t\tYour current balance is %d\n”,t->balance);
        }
```



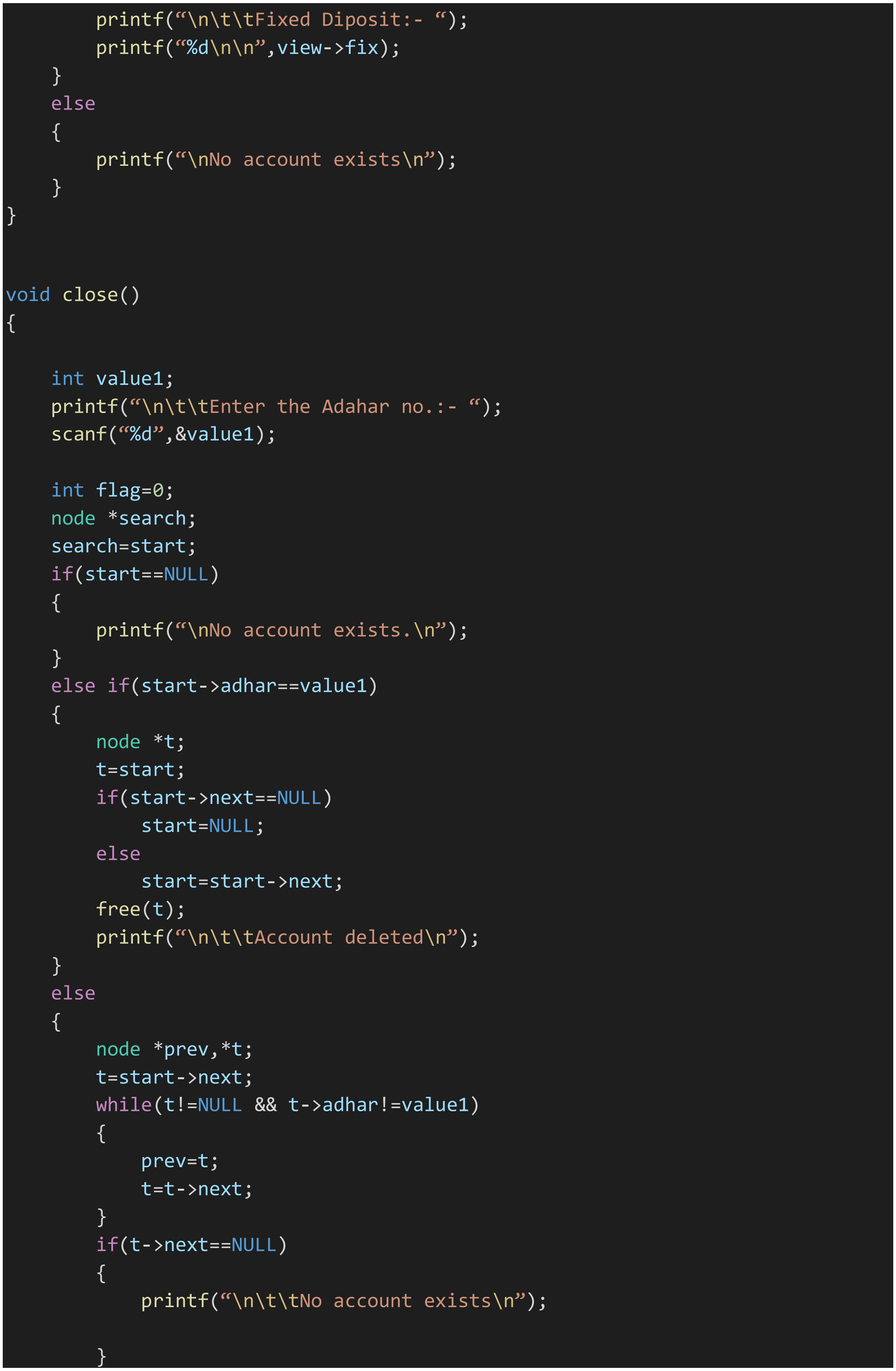
```
        else
            printf(“\n\t\tEnter a valid limit\n”);

    }
    else
    {
        printf(“\nNo id. Exists\n”);

    }
}

void fix()
{
        int value1;
    printf(“\n\t\tEnter the Adahar no.:- “);
    scanf(“%d”,&value1);

    int flag=0;
    node *search;
    search=start;
    if(start==NULL)
    {
        flag=0;
    }
    else
    {
        while(search!=NULL)
        {
            if(value1==search->adhar)
            {
                flag=1;
                break;
            }
            else
            {
                search=search->next;
            }
        }
    }

    if(flag=1)
    {
        node *t=search;
        int limit;
        printf(“\n\t\tEnter the amount:- “);
        scanf(“%d”,&limit);
        if(limit>0)
        {
```



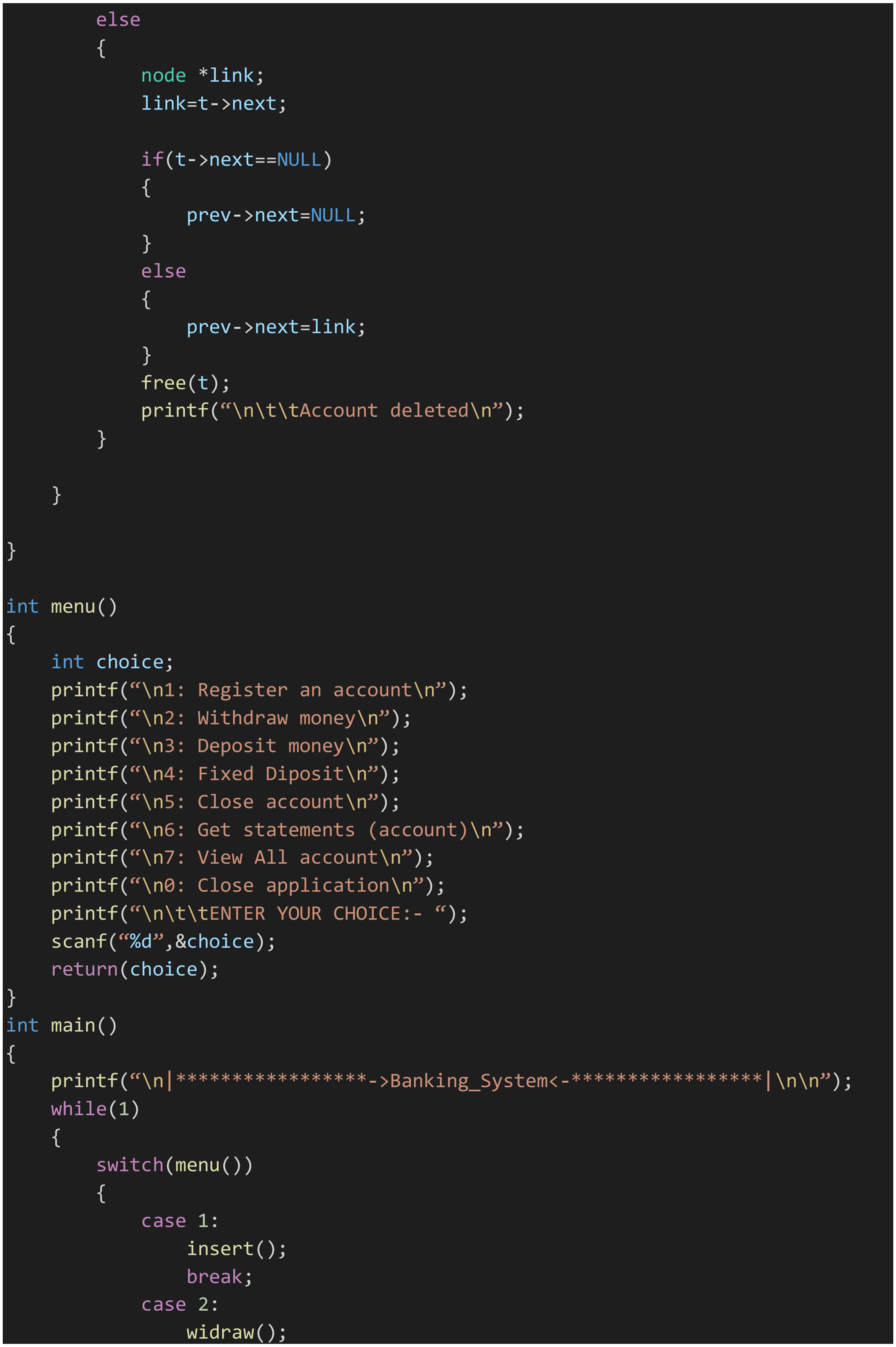
```
            t->fix+=limit;
            printf(“\n\t\t%d deposited in account no %d\n”,limit,t->ac);
        }
        else
            printf(“\n\t\tEnter a valid limit\n”);
    }
    else
    {
        printf(“\nNo id. Exists\n”);

    }

}


void viewlist()
{
    node *view;
    int count=1;
    if(start==NULL)
    {
        printf(“\n\t\tList is empty.\n”);
    }
    else
    {
        view=start;
        while(view!=NULL)
        {
        printf(“\n\t\t[*Information of Client no. %d]”,count);
        printf(“\n\t\tName :- “);
        printf(“%s”,view->name);
        printf(“\n\t\tAdhar No. :- “);
        printf(“%d”,view->adhar);
        printf(“\n\t\tAccount number:- “);
        printf(“%d”,view->ac);
        printf(“\n\t\tProfession:- “);
        printf(“%s”,view->profession);
        printf(“\n\t\tAddress:- “);
        printf(“%s”,view->address),
        printf(“\n\t\tBalace:- “);
        printf(“%d”,view->balance),
        printf(“\n\t\tFixed Diposit:- “);
        printf(“%d\n\n”,view->fix);
        count++;
        view=view->next;
        }
        count--;
        printf(“\n\n\t\tNo of accounts = %d\n”,count);
    }
```



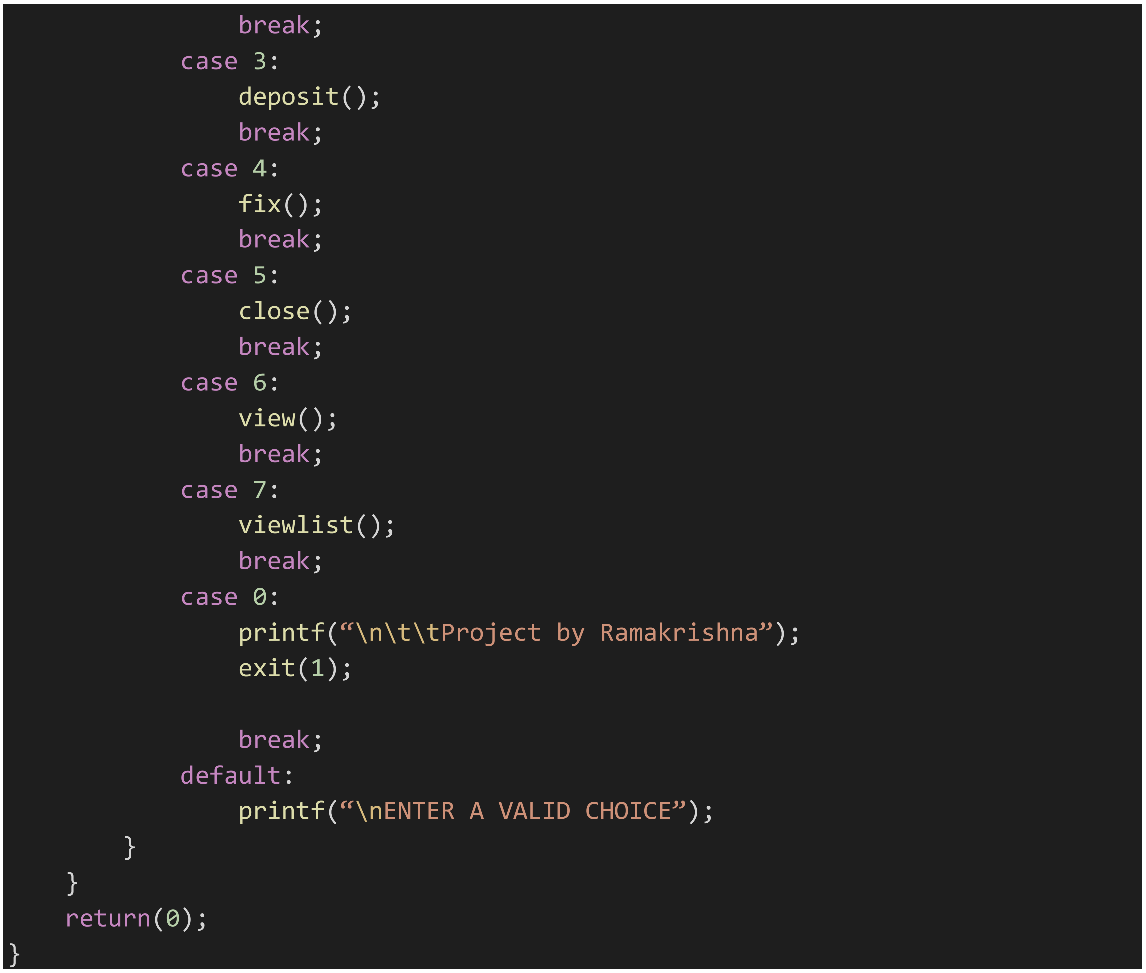
```
}


void view()
{
    int value1;
    printf(“\n\t\tEnter the Adahar no.:- “);
    scanf(“%d”,&value1);

    int flag=0;
    node *search;
    search=start;
    if(start==NULL)
    {
        flag=0;
    }
    else
    {
        while(search!=NULL)
        {
            if(value1==search->adhar)
            {
                flag=1;
                printf(“\n\t\tId already exists”);
                break;
            }
            else
            {
                search=search->next;
            }
        }
    }

    if(flag=1)
    {
        node *view=search;
        printf(“\n\t\tName :- “);
        printf(“%s”,view->name);
        printf(“\n\t\tAdhar No. :- “);
        printf(“%d”,view->adhar);
        printf(“\n\t\tAccount number:- “);
        printf(“%d”,view->ac);
        //view->roll=value1;
        printf(“\n\t\tProfession:- “);
        printf(“%s”,view->profession);
        printf(“\n\t\tAddress:- “);
        printf(“%s”,view->address),
        printf(“\n\t\tBalace:- “);
        printf(“%d”,view->balance),
```



```
        printf(“\n\t\tFixed Diposit:- “);
        printf(“%d\n\n”,view->fix);
    }
    else
    {
        printf(“\nNo account exists\n”);
    }
}


void close()
{

    int value1;
    printf(“\n\t\tEnter the Adahar no.:- “);
    scanf(“%d”,&value1);

    int flag=0;
    node *search;
    search=start;
    if(start==NULL)
    {
        printf(“\nNo account exists.\n”);
    }
    else if(start->adhar==value1)
    {
        node *t;
        t=start;
        if(start->next==NULL)
            start=NULL;
        else
            start=start->next;
        free(t);
        printf(“\n\t\tAccount deleted\n”);
    }
    else
    {
        node *prev,*t;
        t=start->next;
        while(t!=NULL && t->adhar!=value1)
        {
            prev=t;
            t=t->next;
        }
        if(t->next==NULL)
        {
            printf(“\n\t\tNo account exists\n”);

        }
```

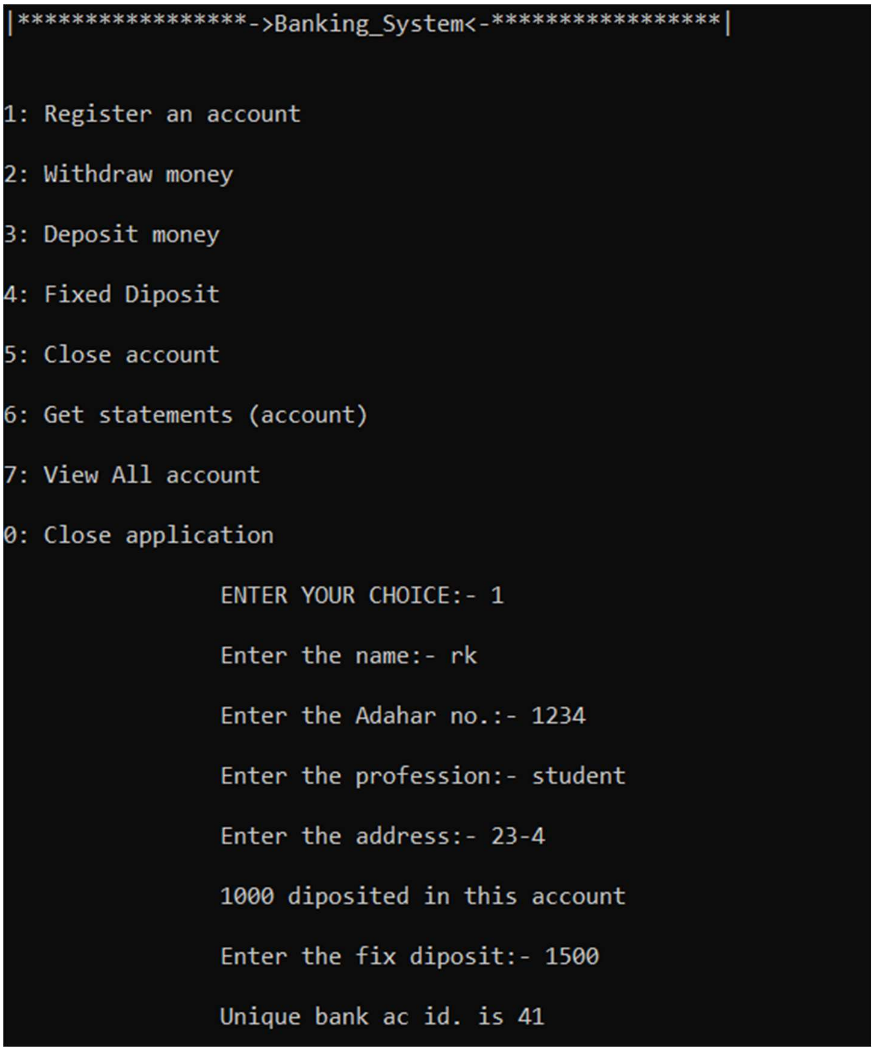


```
        else
        {
            node *link;
            link=t->next;

            if(t->next==NULL)
            {
                prev->next=NULL;
            }
            else
            {
                prev->next=link;
            }
            free(t);
            printf(“\n\t\tAccount deleted\n”);
        }

    }

}

int menu()
{
    int choice;
    printf(“\n1: Register an account\n”);
    printf(“\n2: Withdraw money\n”);
    printf(“\n3: Deposit money\n”);
    printf(“\n4: Fixed Diposit\n”);
    printf(“\n5: Close account\n”);
    printf(“\n6: Get statements (account)\n”);
    printf(“\n7: View All account\n”);
    printf(“\n0: Close application\n”);
    printf(“\n\t\tENTER YOUR CHOICE:- “);
    scanf(“%d”,&choice);
    return(choice);
}
int main()
{
    printf(“\n|*****************->Banking_System<-*****************|\n\n”);
    while(1)
    {
        switch(menu())
        {
            case 1:
                insert();
                break;
            case 2:
                widraw();
```

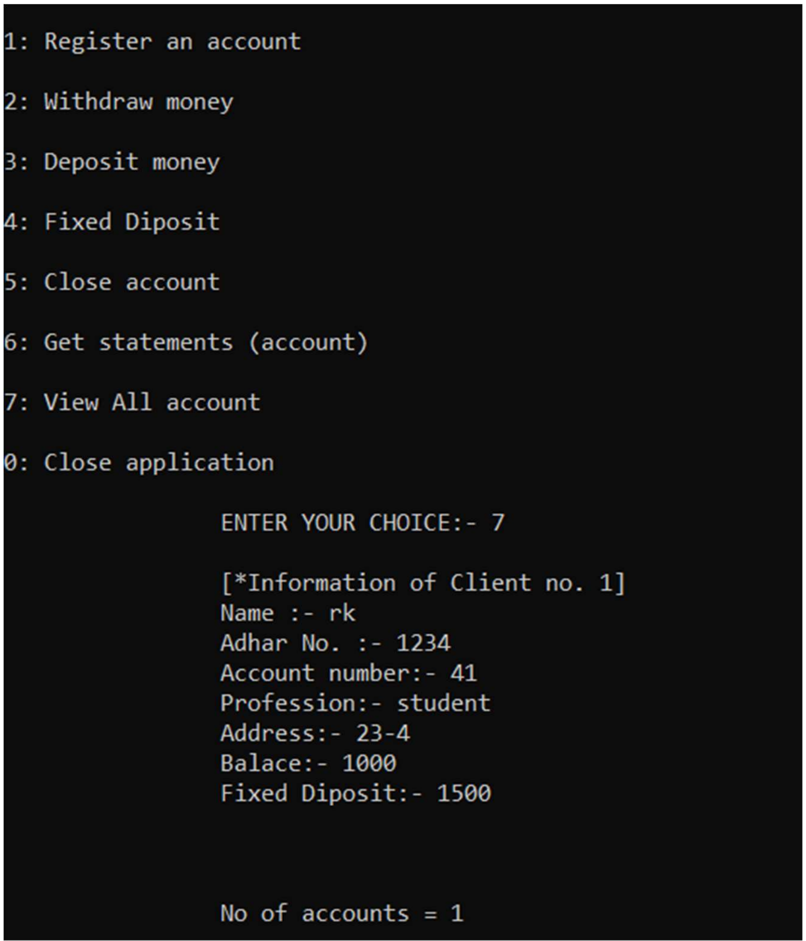


```
                break;
            case 3:
                deposit();
                break;
            case 4:
                fix();
                break;
            case 5:
                close();
                break;
            case 6:
                view();
                break;
            case 7:
                viewlist();
                break;
            case 0:
                printf(“\n\t\tProject by Ramakrishna”);
                exit(1);

                break;
            default:
                printf(“\nENTER A VALID CHOICE”);
        }
    }
    return(0);
}
```

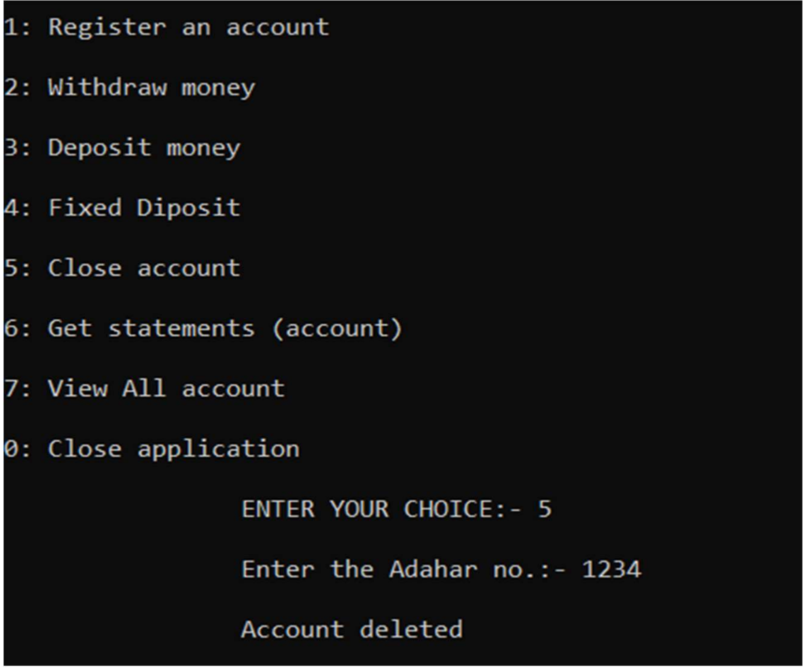
SAMPLE OUTPUT:



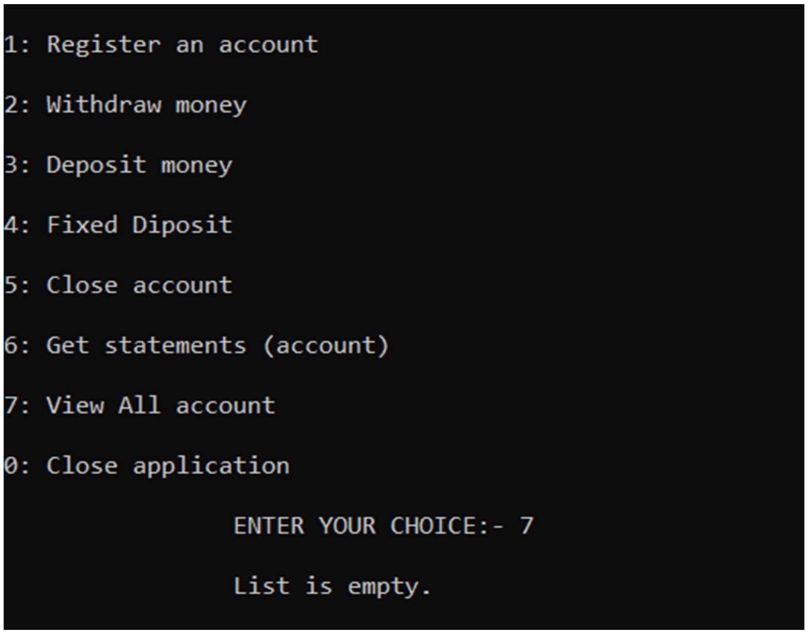
```
|*****************->Banking_System<-*****************|


1: Register an account

2: Withdraw money

3: Deposit money

4: Fixed Diposit

5: Close account

6: Get statements (account)

7: View All account

0: Close application

                ENTER YOUR CHOICE:- 1

                Enter the name:- rk

                Enter the Adahar no.:- 1234

                Enter the profession:- student

                Enter the address:- 23-4

                1000 diposited in this account

                Enter the fix diposit:- 1500

                Unique bank ac id. is 41
```



```
1: Register an account

2: Withdraw money

3: Deposit money

4: Fixed Diposit

5: Close account

6: Get statements (account)

7: View All account

0: Close application

                ENTER YOUR CHOICE:- 7

                [*Information of Client no. 1]
                Name :- rk
                Adhar No. :- 1234
                Account number:- 41
                Profession:- student
                Address:- 23-4
                Balace:- 1000
                Fixed Diposit:- 1500



                No of accounts = 1
```



```
1: Register an account

2: Withdraw money

3: Deposit money

4: Fixed Diposit

5: Close account

6: Get statements (account)

7: View All account

0: Close application

                ENTER YOUR CHOICE:- 5

                Enter the Adahar no.:- 1234

                Account deleted
```



```
1: Register an account

2: Withdraw money

3: Deposit money

4: Fixed Diposit

5: Close account

6: Get statements (account)

7: View All account

0: Close application

                ENTER YOUR CHOICE:- 7

                List is empty.
```

****