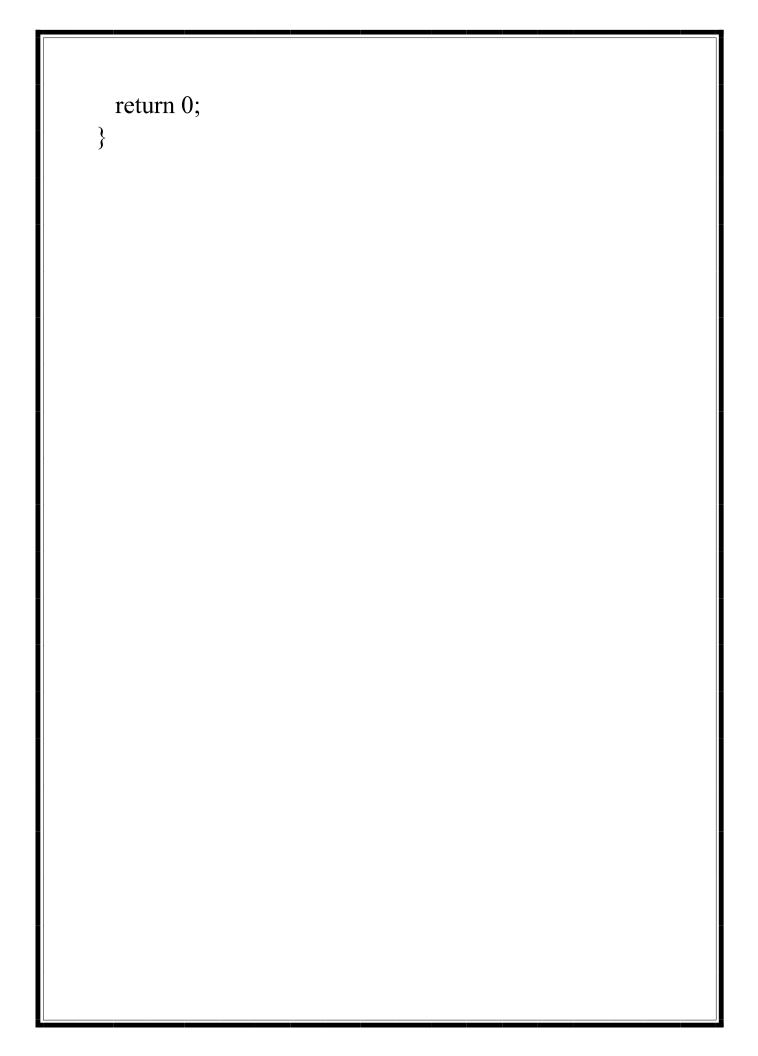
QUEUE USING SINGLY LINKED LIST

CODE:

```
#include <iostream>
using namespace std;
struct node {
 int data;
  struct node *next;
};
struct node* front = NULL;
struct node* rear = NULL;
struct node* temp;
void Insert() {
 int val;
  cout<<"Insert the element in queue : "<<endl;</pre>
  cin>>val;
 if (rear == NULL) {
   rear = (struct node *)malloc(sizeof(struct node));
   rear->next = NULL;
   rear->data = val;
   front = rear;
  } else {
   temp=(struct node *)malloc(sizeof(struct node));
   rear->next = temp;
   temp->data = val;
   temp->next = NULL;
   rear = temp;
```

```
void Delete() {
 temp = front;
 if (front == NULL) {
   cout << "Underflow" << endl;
   return;
  else
  if (temp->next != NULL) {
   temp = temp->next;
   cout << "Element deleted from queue is: " << front-
>data<<endl;
   free(front);
   front = temp;
  } else {
   cout << "Element deleted from queue is: " << front-
>data<<endl;
   free(front);
   front = NULL;
   rear = NULL;
void Display() {
 temp = front;
  if ((front == NULL) && (rear == NULL)) {
   cout<<"Queue is empty"<<endl;</pre>
   return;
```

```
cout<<"Queue elements are: ";</pre>
 while (temp != NULL) {
   cout<<temp->data<<" ";
   temp = temp -> next;
 cout << endl;
int main() {
 int ch;
 cout<<"1) Insert element to queue"<<endl;
 cout<<"2) Delete element from queue"<<endl;
 cout<<"3) Display all the elements of queue"<<endl;
 cout << "4) Exit" << endl;
 do {
   cout<<"Enter your choice : "<<endl;</pre>
   cin>>ch;
   switch (ch) {
     case 1: Insert();
     break;
     case 2: Delete();
     break;
     case 3: Display();
     break;
     case 4: cout << "Exit" << endl;
     break;
     default: cout<<"Invalid choice"<<endl;
 } while(ch!=4);
```



OUTPUT:

```
Output
1) Insert element to queue
2) Delete element from queue
3) Display all the elements of queue
4) Exit
Enter your choice :
Insert the element in queue :
Enter your choice :
Insert the element in queue :
Enter your choice :
Insert the element in queue :
Enter your choice :
Queue elements are: 43 15 28
Enter your choice :
Element deleted from queue is: 43
Enter your choice :
Queue elements are: 15 28
```