```
#include<iostream>
#include <stdlib.h>

using namespace std;

class qnode
{
   int jobnumber;
   qnode *next;
   friend class queue;
};

class queue
{
   qnode *front, *rear;
public:
   void enque(int val);
   int deque();
   int isempty();
   void display();

   queue ()
   {
      front=rear=NULL;
   }
};

int queue::isempty()
{
   if(front==NULL && rear==NULL)
      return 1;
   else
      return 0;
}
void queue::enque(int val)
{
   qnode *t;
   t=new qnode;
   t->jobnumber=val;
   t->next=NULL;
   // If queue is empty, open new node is front and rear both
   if (isempty())
   {
      front=t;
      rear=t;
   }
```

```
   else              //add the new node at the end of queue and change rear
   {
      rear->next-t;
      rear=t;
   }
}
int queue::deque()
{
   qnode *t;
   int val;
   if (isempty())
      cout<<"\nQueue is empty\n";
   else
   {
      // Store previous front and move front one nede ahead
      t=front;
      front=front->next;

      // if front becomes so, then nauge rear als NULL
      if (front==NULL)
         rear=NULL;

      val=t->jobnumber;
      delete t;
   }
   return val;
}
void queue::display()
{
   qnode *t;

   if (isempty())
      cout<<"\nQueue is empty\n";
   else
   {
      cout<<"\nQueue jobnumbers: ";
      for (t=front;t!=NULL; t=t->next)
      {
         cout<<"\t"<<t->jobnumber;
      }
   }
}

int main()
{
   int ch, n;
```

```
   queue obj;
   while (1)
   {
   cout <<"\n1. Add job \n2.Delete job \n3.Display job \n4.exit";
   cout<<"\nEnter your choice:";
   cin>>ch;
   switch (ch)
   {
   case 1:
      cout<<"\nEnter jobnumbers : ";
      cin>>n;
      obj.enque (n);
      break;
   case 2:
      obj.deque();
      break;
   case 3:
      obj.display();
      break;
   case 4:
      exit (0);
   default:
      cout<<"\nYou entered wrong choice : ";
   }
   }
return 0;
}
```