Assignment no: 12

Write C++ program for simulating job queue.
Write functions to add job and delete job from queue.

```
#include <iostream>
using namespace std;
int queue[100], n = 100, front = - 1, rear = - 1;
void Insert()
 {
   int val;
   if (rear == n - 1)
   cout<<"Queue Overflow"<<endl;
   else
   {
      if (front == - 1)
      front = 0;
      cout<<"Insert the element in queue : "<<endl;
      cin>>val;
      rear++;
      queue[rear] = val;
   }
}
void Delete()
{
   if (front == - 1 || front > rear)
    {
      cout<<"Queue Underflow ";
      return ;
    }
   else
    {
      cout<<"Element deleted from queue is : "<< queue[front] <<endl;
      front++;;
    }
}
void Display()
 {
   if (front == - 1)
   cout<<"Queue is empty"<<endl;
   else
   {
      cout<<"Queue elements are : ";
      for (int i = front; i <= rear; i++)
      cout<<queue[i]<<" ";
         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;
    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);
  return 0;
}
```

----------OUTPUT----------

```
1) Insert element to queue
2) Delete element from queue
3) Display all the elements of queue
4) Exit
Enter your choice :
1
Insert the element in queue :
23
Enter your choice :
1
Insert the element in queue :
45
Enter your choice :
1
Insert the element in queue :
12
Enter your choice :
3
Queue elements are : 23 45 12
Enter your choice :
2
Element deleted from queue is : 23
Enter your choice :
```

2
Element deleted from queue is : 45
Enter your choice :
2
Element deleted from queue is : 12
Enter your choice :
2
Queue Underflow