Assignment Name: Implementation of Stack for Integer

Class: MCA I Lab: CA Lab III (DS)

```
#include<iostream.h>
#include<conio.h>
#includeocess.h>
class stack
      int s[10], n, top, ele, i;
public:
      stack()
            top=-1;
      void push();
      void dis();
      int pop();
      int peep();
      void change();
};
void stack::push()
      if(top>=2)
       cout<<"\nStack is overflow:";</pre>
       cout<<"\nEnter element:";</pre>
       cin>>ele;
      top++;
       s[top]=ele;
}
void stack::dis()
{
      cout<<"\nElements in stack are:\n";</pre>
      for(i=top;i>=0;i--)
       cout<<s[i]<<"\t";
int stack::pop()
      if(top==-1)
            cout<<"\nUnderflow";</pre>
            return 0;
      }
      else
           return (s[top--]);
}
int stack::peep()
      cout<<"\nEnter position:";</pre>
      cin>>i;
      if((top-i+1)<0)
      {
```

```
cout<<"\nUnderflow";</pre>
      return 0;
      }
      else
      return (s[top-i+1]);
}
void stack::change()
      cout<<"\nEnter position ";</pre>
      if((top-i+1)<0)
            cout<<"\nUnderflow";</pre>
      }
      else
            int n;
            cout<<"\nEnter element:";</pre>
            cin>>n;
            s[top-i+1]=n;
}
void main()
      clrscr();
      stack s;
      int ch;
      cout<<"\n1. Push 2.Display 3.Pop 4.Peep 5.Change 6.Exit\n";</pre>
      while (ch!=6)
            cout<<"\nEnter ch :";</pre>
            cin>>ch:
            switch(ch)
                  case 1: s.push(); break;
                  case 2: s.dis(); break;
                  case 3: int n=s.pop();
                        if(n>0)
                        cout<<"\nPop ele is "<<n;</pre>
                        break;
                  case 4: int m=s.peep();
                        if(m>0)
                        cout<<"\nPeep ele is "<<m;</pre>
                        break;
                  case 5: s.change(); break;
                  case 6: exit(0);
            }
      getch();
}
*/ Output */
1. Push 2.Display 3.Pop 4.Peep 5.Change 6.Exit
Enter ch :1
```

Enter element:10 Enter ch :1 Enter element:20 Enter ch :1 Enter element:30 Enter ch :1 Stack is overflow: Enter ch :2 Elements in stack are: 30 20 10 Enter ch :3 Pop ele is 30 Enter ch :2 Elements in stack are: 20 10 Enter ch :4 Enter position:1 Peep ele is 20 Enter ch : Elements in stack are: 10 20 Enter ch :5 Enter position 1

Enter element:80

Enter ch :2

Elements in stack are:

10 Enter ch : 6