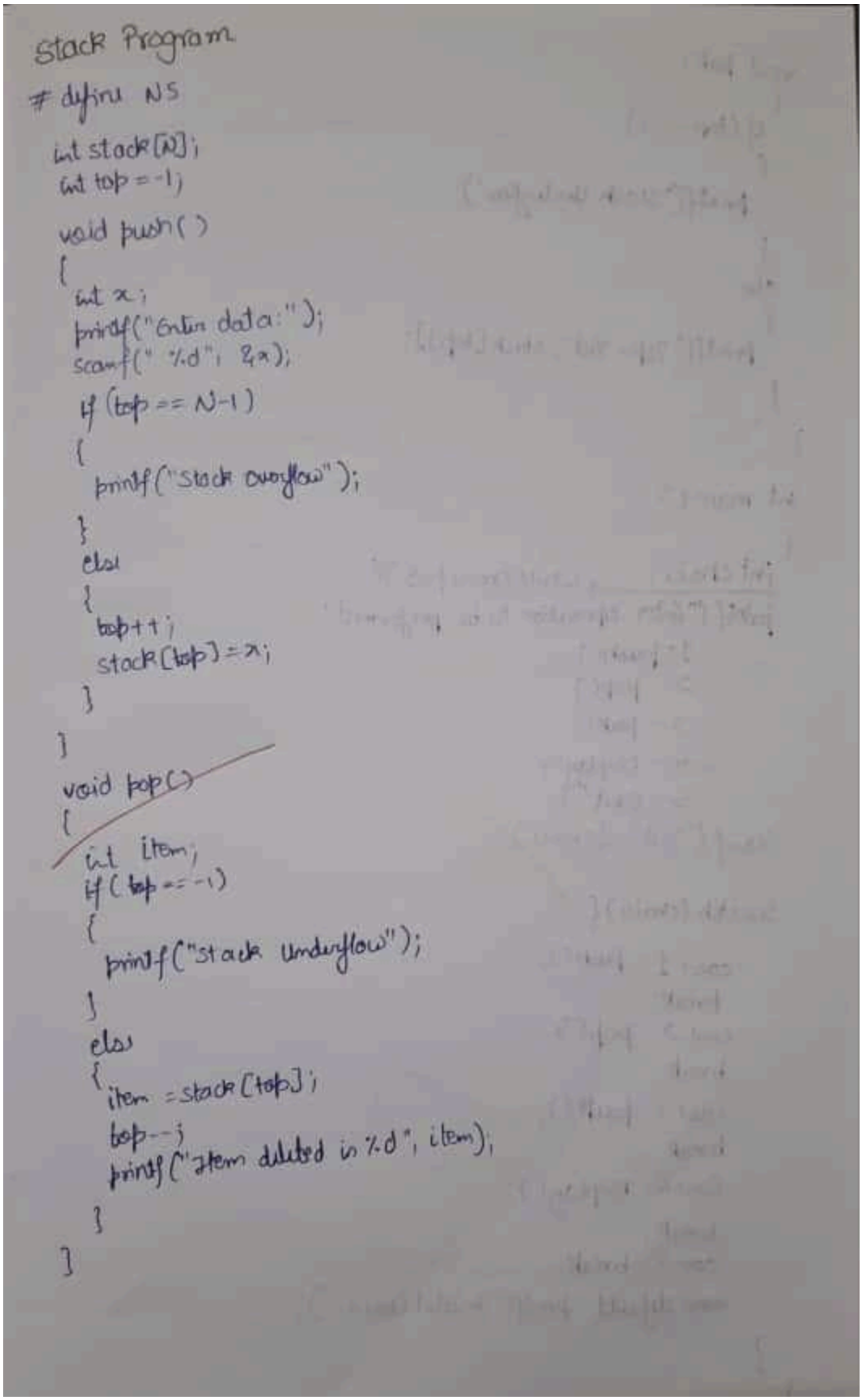
OUTPUT:

```
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
1
Enter data:1
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
1
Enter data:2
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
1
Enter data:3
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
1
Enter data:4
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
1
Enter data:5
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
1
Enter data:6
Stack Overflow
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
3
Top=5
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
2
Element deleted is 5
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
2
Element deleted is 4
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
2
Element deleted is 3
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
2
Element deleted is 2
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
2
Element deleted is 1
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
2
Stack Underflow
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
1
Enter data:21
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
1
Enter data:45
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
1
Enter data:73
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
4
```

```
3
Top=5
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
2
Element deleted is 5
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
2
Element deleted is 4
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
2
Element deleted is 3
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
2
Element deleted is 2
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
2
Element deleted is 1
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
2
Stack Underflow
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
1
Enter data:21
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
1
Enter data:45
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
1
Enter data:73
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
4
21
45
73
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
6
Invalid choice entered
Enter operation to be performed: 1-push, 2-pop, 3-peek, 4-display, 5-exit
5
PS C:\Users\BMSCECSE\Desktop\1BF24CS195\output>
```

OBSERVATION:



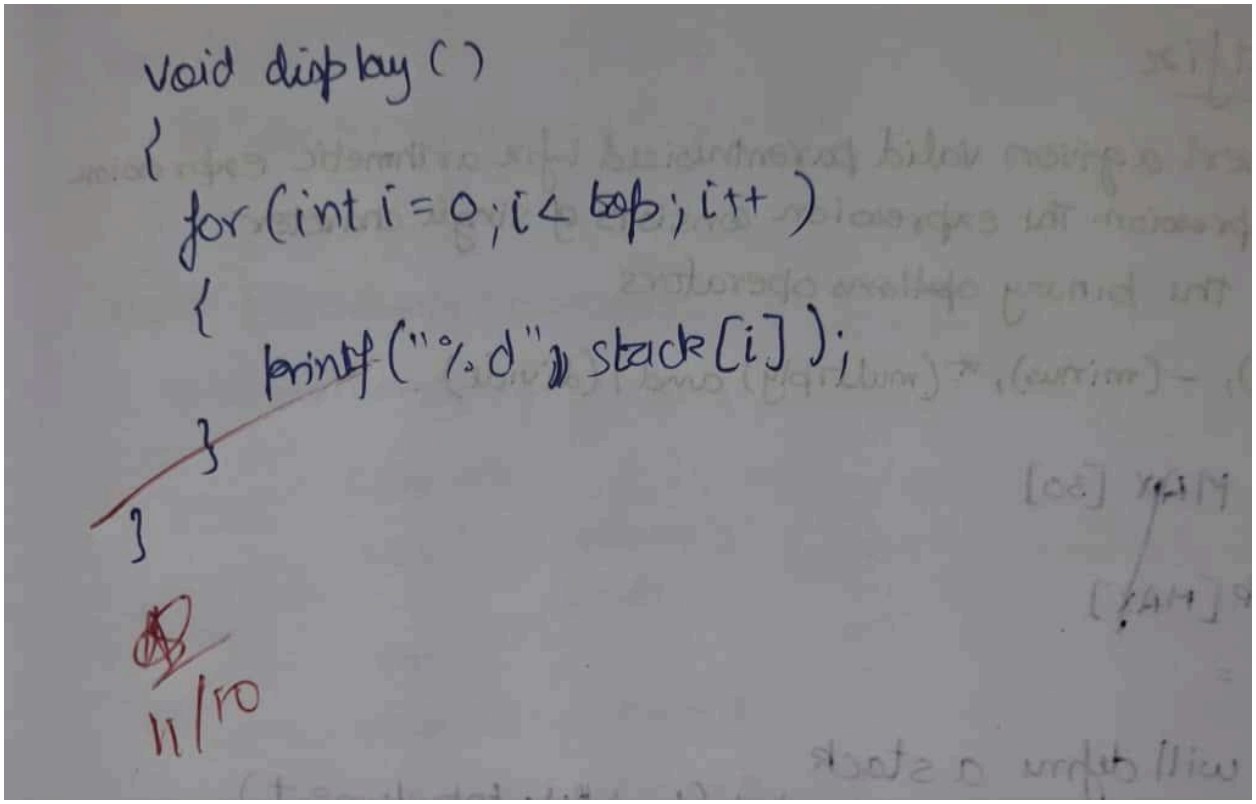
Stack Program

```
# define N5
int stack[N];
int top = -1;
void push()
{
 int x;
 printf("Enter data:");
 scanf("%d", &x);
 if (top == N-1)
 {
  printf("Stack overflow");
 }
 else
 {
  top++;
  stack[top] = x;
 }
}
void pop()
{
 int item;
 if (top == -1)
 {
  printf("stack underflow");
 }
 else
 {
  item = stack[top];
  top--;
  printf("item deleted is %d", item);
 }
}
```

```
void peek()
{
  if(top==-1)
  {
    printf("stack Underflow");
  }
  else
  {
    printf("Top=%d", stack[top]);
  }
}

int main()
{
  int choice;  → while(choice!=5){
  printf("Enter operation to be performed:
        1- push()
        2- pop()
        3- peek()
        4- Display()
        5- exit");
  scanf("%d", &choice);

  switch(choice){
      case 1: push();
       break;
      case 2: pop();
      break;
      case 3: peek(),
      break;
      case 4: Display();
       break;
      case 5: break;
      default: printf("Invalid Choice");
  }
}
```


void display()
{
for(int i=0;i<top;i++)
{
printf("%d",stack[i]);
}
}
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