stack using Scanner class

```
import java.util.Scanner;

public class stack_Scanner {

    static final int PUSH = 1;
    static final int POP = 2;
    static final int PEEK = 3;
    static final int DISPLAY = 4;
    static final int EXIT = 5;

public static void main(string [] args) {
   Scanner sc = new Scanner (system.in);

   System.out.println("Enter the maximum size of the stack:");
   int maxSize = sc.nextInt();
   int [] stack = new int[maxSize];
   int top = -1;

   while (true) {
   System.out.println(" Choose an operation :");
   System.out.println (PUSH + " . PUSH");
   System.out.println (POP + ".POP ");
   System.out.println (PEEK + ".PEEK");
   System.out.println(DISPLAY + ". DISPLAY");
   System.out.println (EXIT + " . EXIT");
   System.out.println ("Enter your choice:");
   int choice = sc.nextInt ();
switch (choice) {
 case PUSH :
    top = push (sc, stack, top, maxsize);
    break;

 case POP;
   top = pop (stack, top);
   break;

case PEEK :
    peek (stack, top);
     break;

 case DISPLAY:
      display (stack, top);
       break;

  case EXIT:
    System.out.println ("Exiting Program...");
    sc.close ();
    return;

    default:
       System.out.println ("Invalid choice");
  }
 }
}
```

```
static int push(Scanner sc, int[]stack, int top, int maxSize){
if (top == maxSize-1){
   System.out.println("stack Overflow! cannot push");
 } else {
   System.out.print("Enter value to push:");
   int value  = sc.nextInt();
   stack[++Top] = value;
    System.out.print("Pushed :"+ value);
   }
    return top;
  }

static int pop(int[] stack, int top){
   if(top== -1){
     System.out.println("stack Underflow! ");
   } else{
      System.out.println("Popped :"+ stack[top]);
      top-- ;
    } return top;
  }

static void peek(int[] stack, int top){
   if(top==-1){
     System.out.println("stack is empty.");
   } else {
     System.out.println("Top element:" + stack[top]);
   }
  }
```

```
static void display (int [] stack, int top ) {
  if (top == -1) {
     System.out.println ("stack is empty.");
  } else {
     System.out.println ("stack elements:");
     for (int i = 0; i <= top ; i++) {
        System.out.print (stack[i] + " ");
     }
  } }
}
```