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STACK IMPLEMENTATION USING ARRAYS

INPUT

```
#include<stdio.h>
#include<stdlib.h>
#define size 3
int stack[size];
int top=-1;

void push()
{
if(top>=(size-1)){
printf("stack overflow\n");
}
else{
printf("enter the value to push\n");
int n;
scanf("%d",&n);
top++;
stack[top]=n;
}
};

int pop()
{
if(top==-1){
printf("stack underflow\n");
return;
}
else{
int n;
n=stack[top];
top--;
return n;
}
};
void display(){
if(top==-1){
printf("empty stack\n");
return;
}
```

```
else{
for(int i=(top);i>-1;i--){
printf("%d\n",stack[i]);
}
}
};

int main(){
int choice;
int del;
while(1){
printf("1.PUSH\n2.POP\n3.DISPLAY\n4.EXIT\n");
scanf("%d",&choice);
switch(choice){
case 1: push();
break;
case 2:
del=pop();
printf("popped element: %d\n",del);
break;
case 3: display();
break;
case 4: exit(0);
default:printf("enter a valid choice\n");
}
}
return 0;
}
```

OUTPUT