struct stack

{

int data;

struct stack \*next;

};

struct stack \*top = NULL;

struct stack \*push(struct stack \*, int);

struct stack \*display(struct stack \*);

struct stack \*pop(struct stack \*);

int peek(struct stack \*);

struct stack \*push(struct stack \*top, int val)

{

struct stack \*ptr;

ptr = (struct stack\*)malloc(sizeof(struct stack));

ptr -> data = val;

if(top == NULL)

{

ptr -> next = NULL;

top = ptr;

}

else

{

ptr -> next = top;

top = ptr;

}

return top;

}

struct stack \*display(struct stack \*top)

{

struct stack \*ptr;

ptr = top;

if(top == NULL)

printf("\n STACK IS EMPTY");

else

{

while(ptr != NULL)

{

printf("\n %d", ptr -> data);

ptr = ptr -> next;

}

}

return top;

}

struct stack \*pop(struct stack \*top)

{

struct stack \*ptr;

ptr = top;

if(top == NULL)

printf("\n STACK UNDERFLOW");

else

{

top = top -> next;

printf("\n The value being deleted is: %d", ptr -> data);

free(ptr);

}

return top;

}

int peek(struct stack \*top)

{

if(top==NULL)

return -1;

else

return top ->data;

}