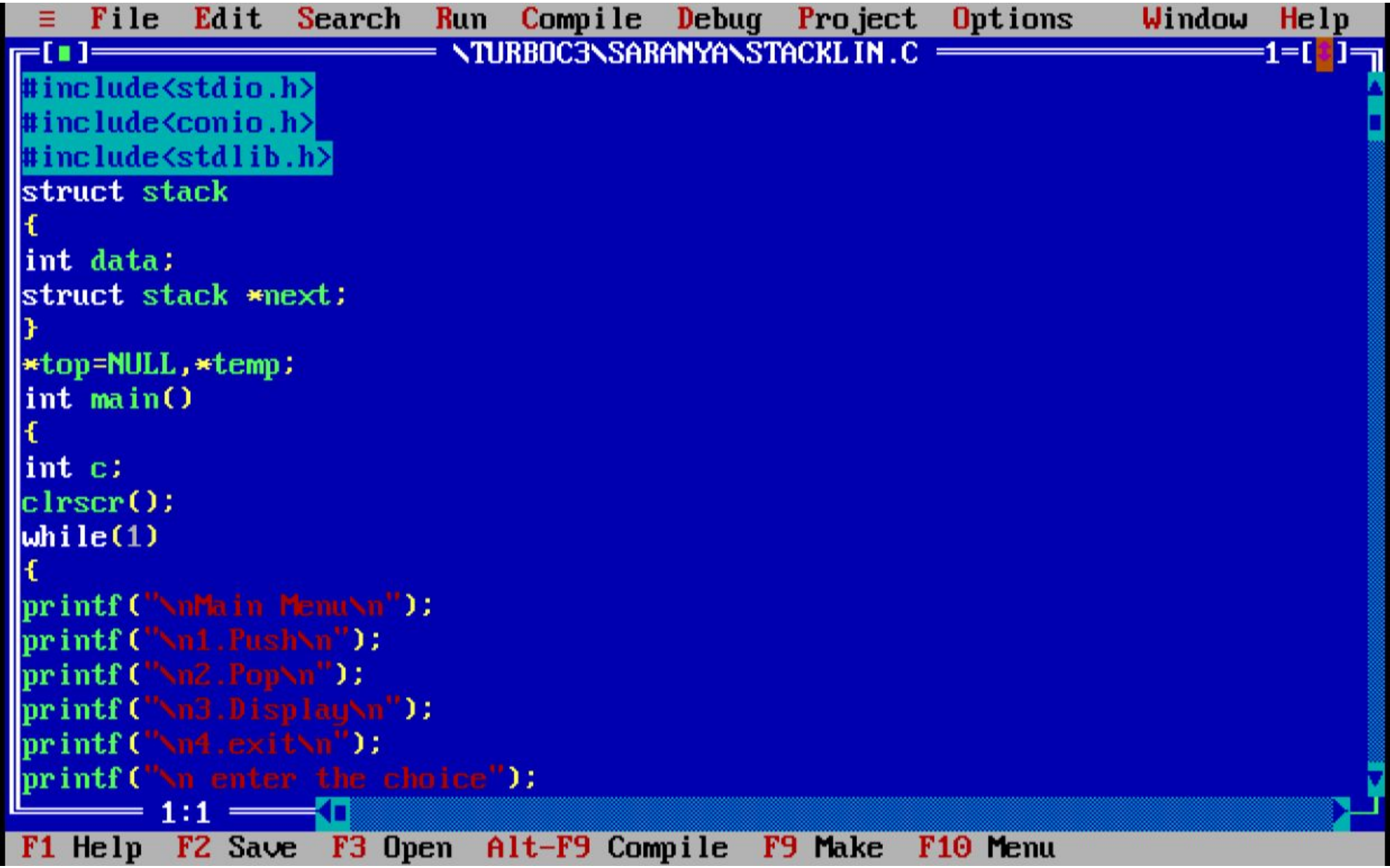
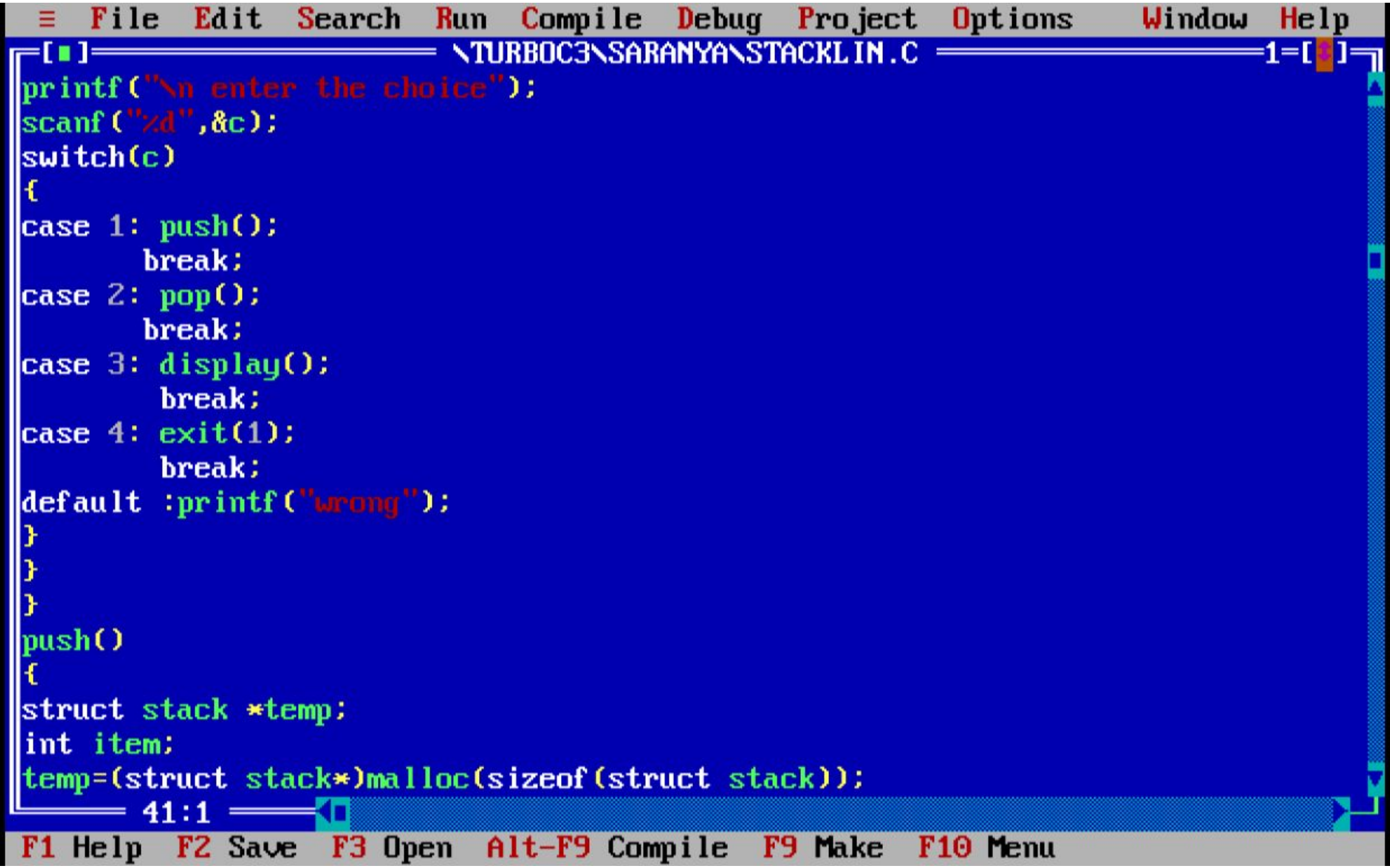
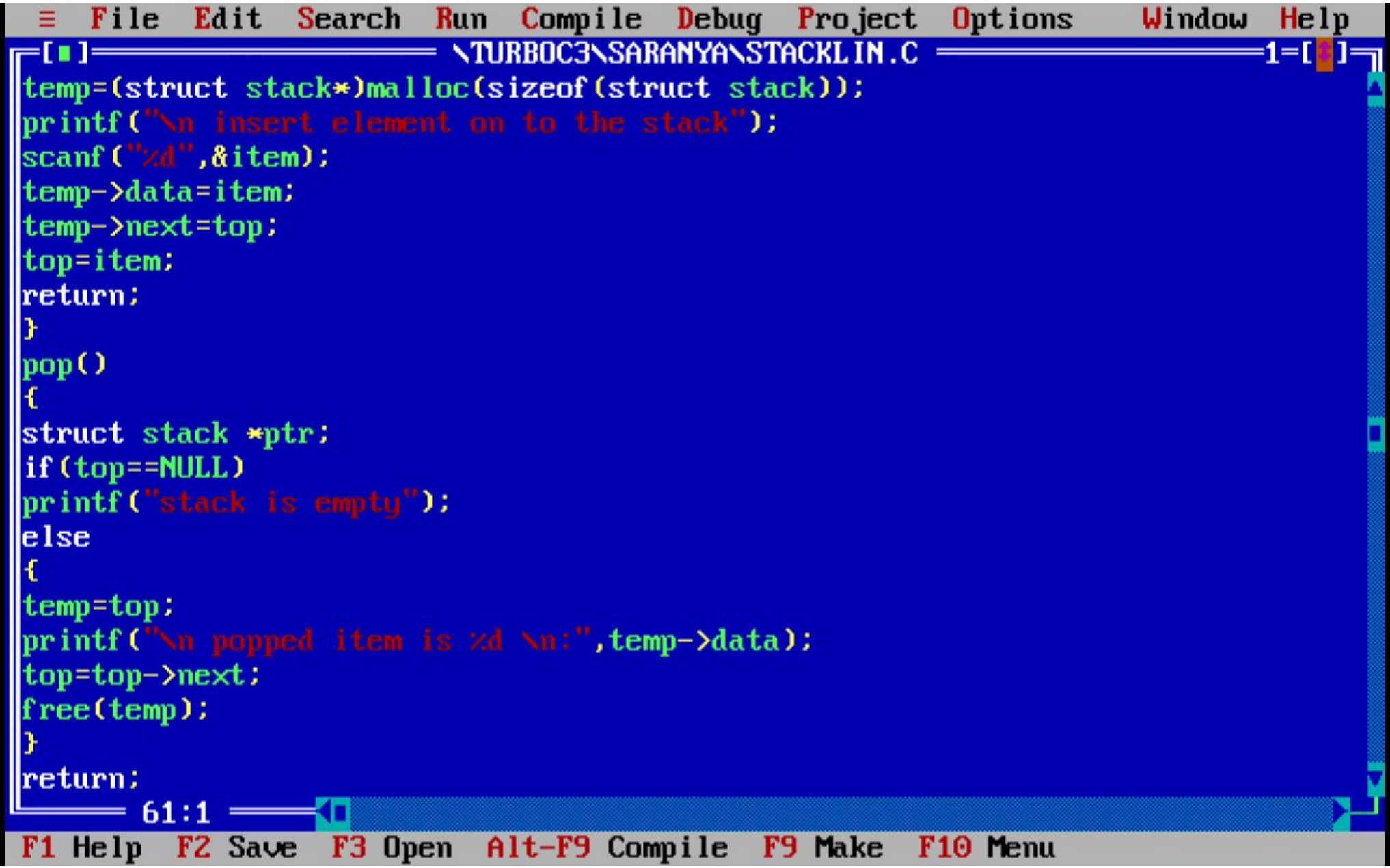
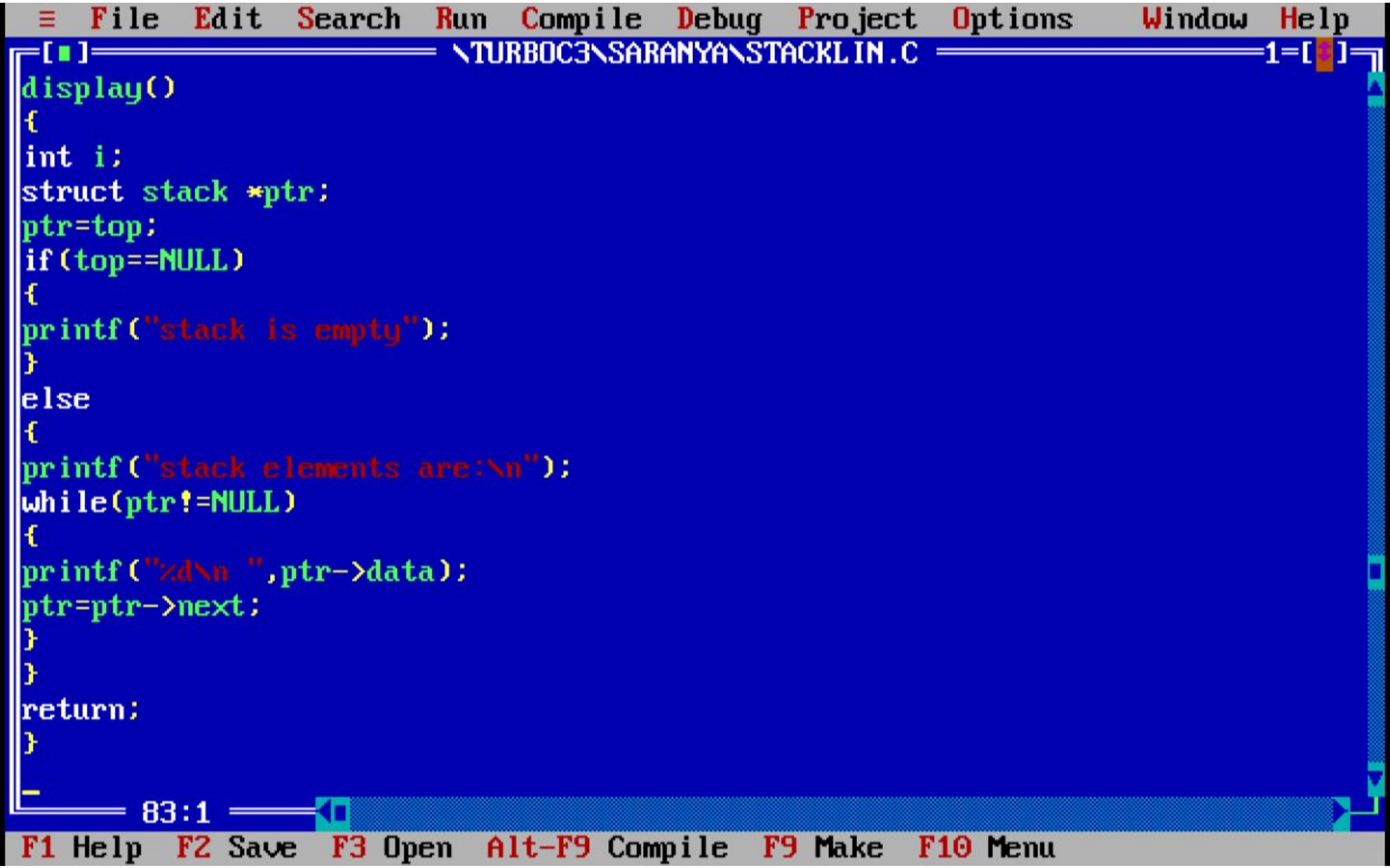

File Edit Search Run Compile Debug Project Options Window Help
\TURBOC3\SARANYA\STACKLIN.C
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
struct stack
{
int data;
struct stack *next;
}
*top=NULL,*temp;
int main()
{
int c;
clrscr();
while(1)
{
printf("\nMain Menu\n");
printf("\n1.Push\n");
printf("\n2.Pop\n");
printf("\n3.Display\n");
printf("\n4.exit\n");
printf("\n enter the choice");
1:1
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu


File Edit Search Run Compile Debug Project Options Window Help
\TURBOC3\SARANYA\STACKLIN.C
printf("\n enter the choice");
scanf("%d",&c);
switch(c)
{
case 1: push();
break;
case 2: pop();
break;
case 3: display();
break;
case 4: exit(1);
break;
default :printf("wrong");
}
}
}
push()
{
struct stack *temp;
int item;
temp=(struct stack*)malloc(sizeof(struct stack));
41:1
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu


File Edit Search Run Compile Debug Project Options Window Help
\TURBOC3\SARANYA\STACKLIN.C
1=[1]
temp=(struct stack*)malloc(sizeof(struct stack));
printf("\n insert element on to the stack");
scanf("%d",&item);
temp->data=item;
temp->next=top;
top=item;
return;
}
pop()
{
struct stack *ptr;
if(top==NULL)
printf("stack is empty");
else
{
temp=top;
printf("\n popped item is %d \n:",temp->data);
top=top->next;
free(temp);
}
return;
61:1
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu


File Edit Search Run Compile Debug Project Options Window Help
\TURBOC3\SARANYA\STACKLIN.C
1=[3]
display()
{
int i;
struct stack *ptr;
ptr=top;
if(top==NULL)
{
printf("stack is empty");
}
else
{
printf("stack elements are:\n");
while(ptr!=NULL)
{
printf("%d\n ",ptr->data);
ptr=ptr->next;
}
}
return;
}
83:1
F1 Help F2 Save F3 Open Alt-F9 Compile F9 Make F10 Menu

```
Main Menu

1.Push

2.Pop

3.Display

4.exit

 enter the choice 2
stack is empty
Main Menu

1.Push

2.Pop

3.Display

4.exit

 enter the choice_
```

Program no: 7

Program to implement stack using singly linked list

Program

```
#include <stdio.h>
#include <conio.h>
#include <stdio.h>
struct stack
 {
  int data;
  struct stack *next;
 }
 *top = NULL, *temp;
 int main()
{
 int c;
 clrscr();
 while(1)
 {
  printf("\n main menu\n");
  printf("\n 1. push");
  printf("\n 2. pop");
```

```
printf("\n3. Display\n");
printf("\n4. exit\n");
printf("\nenter the choice:");
scanf("%d", &c);
switch(c)
{
 case 1: push();
         break;
 case 2: pop();
         break;
 case 3: display();
         break;
 case 4: exit();
         break;
 default: printf("Wrong ch");
}
}
}
push()
 {
  struct stack *temp;
  int item;
```

```
temp = (struct stack *) malloc (sizeof (struct stack));
printf("\n Insert element on to the stack:");
scanf("%d", &item);
temp->data = item;
temp-> next = top;
top = item;
return;
}
pop()
{
struct stack *ptr;
if(top == NULL)
printf(" stack is empty ");
else
{
temp = top;
printf("\n popped item is %d \n: ", temp->data);
top = top -> next;
free(temp);
}
return;
display()
{
```

```
int i;
struct stack *ptr;
ptr = top;
if(top == NULL)
{
 printf("stack is empty");
}
else
{
printf("stack elements are : \n");
while(ptr != NULL)
 {
 printf(" %d\n", ptr->data);
ptr = ptr->next;
}
}
return;
}
```

output

Main menu

1. push
2. pop
3. Display
4. exit.

enter the choice : 2

stack is empty.

Main menu

1. push
2. pop
3. Display
4. exit

enter the choice : 1

insert the element on to the stack : 10.