```
Scanf ("%d", &choice);
```

01.01.2024

Operations on Stack   push, pop and display.

```c
#include <stdio.h>
#include <stdlib.h>
#define SIZE 5.
int i, stack[SIZE], top=-1;
void main()
{ int value, choice;
  while(1) {
    printf ("\n 1: push");
    printf ("\n 2: pop");
    printf (" \n 3: Display");
    printf (" \n4: Exit");
    Switch (choice) {
      case 1: printf ("Enter the value");
              Scanf ("%d", &value);
              push (value);
              break;
      Case 2: pop ();
              break;
      case 3: display ();
              break;
      Case 4: exit(0);
      default: printf ("Invalid input"); }
    }
}

void push(int value)          void pop ()
{ if ( top == SIZE-1)         { if (top == -1)
    printf ("Overflow");           printf (" Underflow");
  else                        else {
  { top = top+1;                   Value = stack [top];
    stack [top] = value;           top = top-1;
    printf ("%d inserted", value);  printf ("%d removed",
  }                                              value);
}                                }
                              }
```

```
void display ()
{   int i;
    if (top == -1)
    {-printf (" Stack is Empty. Underflow");
    }

    else {
    for (i=top; i>=0; i--)
    {
        printf ("The elements of stack are %d",
                            stack [i]);
    }
    }
}
```

Ends

OUTPUT

→ Enter 1: push, 2: pop, 3: display, 4: Exit
   2

Stack is Empty. Overflow condition
Enter 1: push, 2.pop, 3.display 4.Exit.
1

Enter a value: 10
Insertion Successful.
Enter 1: push 2. pop 3. display 4. Exit.
1

Enter a value: 20
Insertion Successful.
Enter 1: push 2: pop 3. dislay 4. Exit
2

20 removed successfully.

Enter 1: push 2.pop 3.display 4.Exit
3

The elements of stack are 10.
Enter 1.push 2.pop 3 display 4.Exit   4

```
1:Push
2.Pop
3.Display
4.Exit
Enter your choice:1

Enter the value:10
10 inserted

1:Push
2.Pop
3.Display
4.Exit
Enter your choice:1

Enter the value:20
20 inserted

1:Push
2.Pop
3.Display
4.Exit
Enter your choice:2
20 removed

1:Push
2.Pop
3.Display
4.Exit
Enter your choice:3
The stack elements are:10
1:Push
2.Pop
3.Display
4.Exit
Enter your choice:4

Process returned 0 (0x0)    execution time : 24.586 s
Press any key to continue.
```