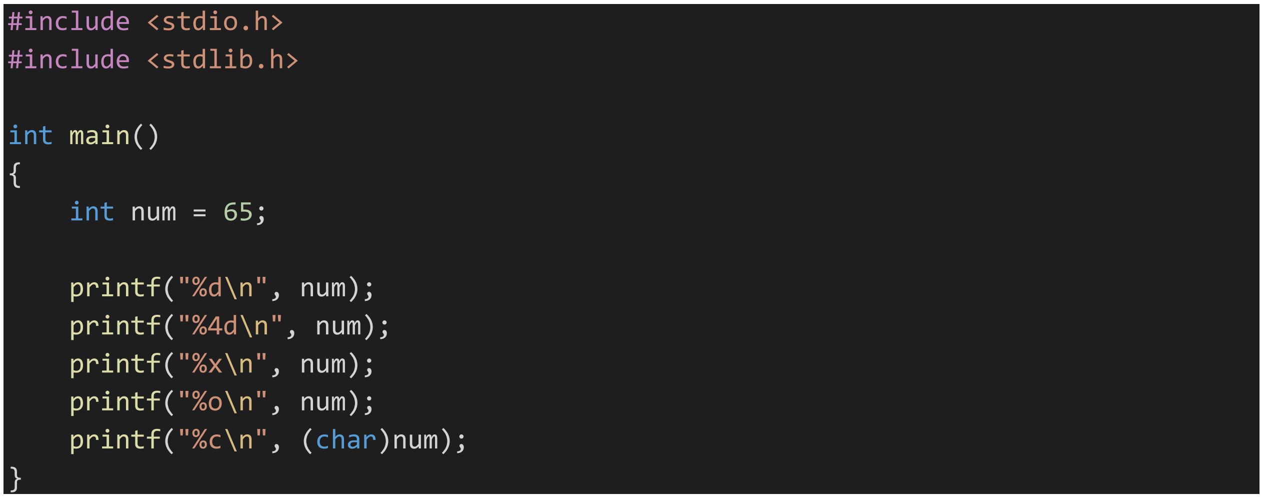
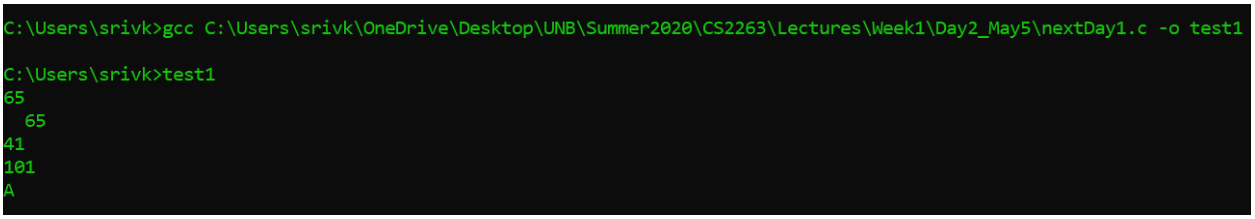
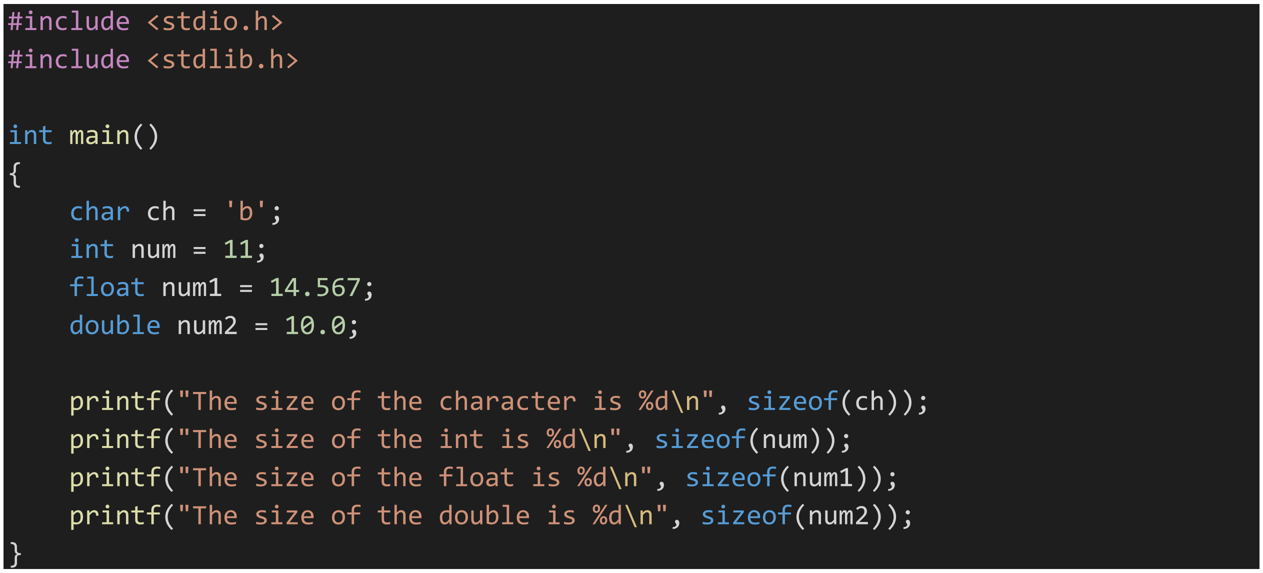


```c
#include <stdio.h>
#include <stdlib.h>

int main()
{
    int num = 65;

    printf("%d\n", num);
    printf("%4d\n", num);
    printf("%x\n", num);
    printf("%o\n", num);
    printf("%c\n", (char)num);
}
```

Output:

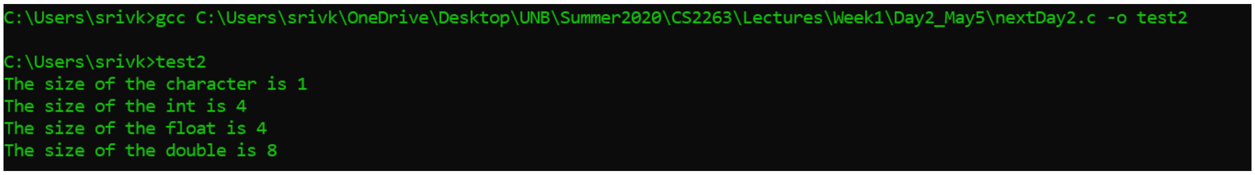


```
C:\Users\srivk>gcc C:\Users\srivk\OneDrive\Desktop\UNB\Summer2020\CS2263\Lectures\Week1\Day2_May5\nextDay1.c -o test1

C:\Users\srivk>test1
65
  65
41
101
A
```



```c
#include <stdio.h>
#include <stdlib.h>

int main()
{
    char ch = 'b';
    int num = 11;
    float num1 = 14.567;
    double num2 = 10.0;

    printf("The size of the character is %d\n", sizeof(ch));
    printf("The size of the int is %d\n", sizeof(num));
    printf("The size of the float is %d\n", sizeof(num1));
    printf("The size of the double is %d\n", sizeof(num2));
}
```

Output:



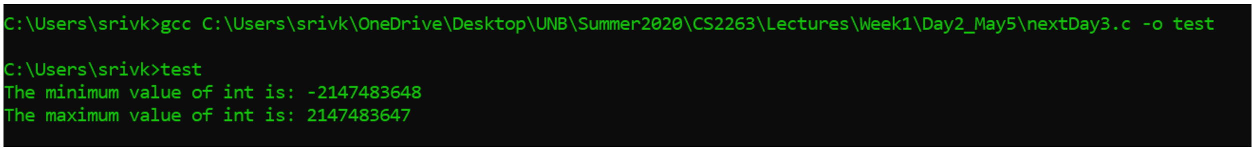
```
C:\Users\srivk>gcc C:\Users\srivk\OneDrive\Desktop\UNB\Summer2020\CS2263\Lectures\Week1\Day2_May5\nextDay2.c -o test2

C:\Users\srivk>test2
The size of the character is 1
The size of the int is 4
The size of the float is 4
The size of the double is 8
```

These numbers are the amount of memory allocated to that datatype.

<limit.h>

```c
#include <stdio.h>
#include <limits.h>

int main()
{
    printf("The minimum value of int is: %d\n", INT_MIN);
    printf("The maximum value of int is: %d\n", INT_MAX);
}
```

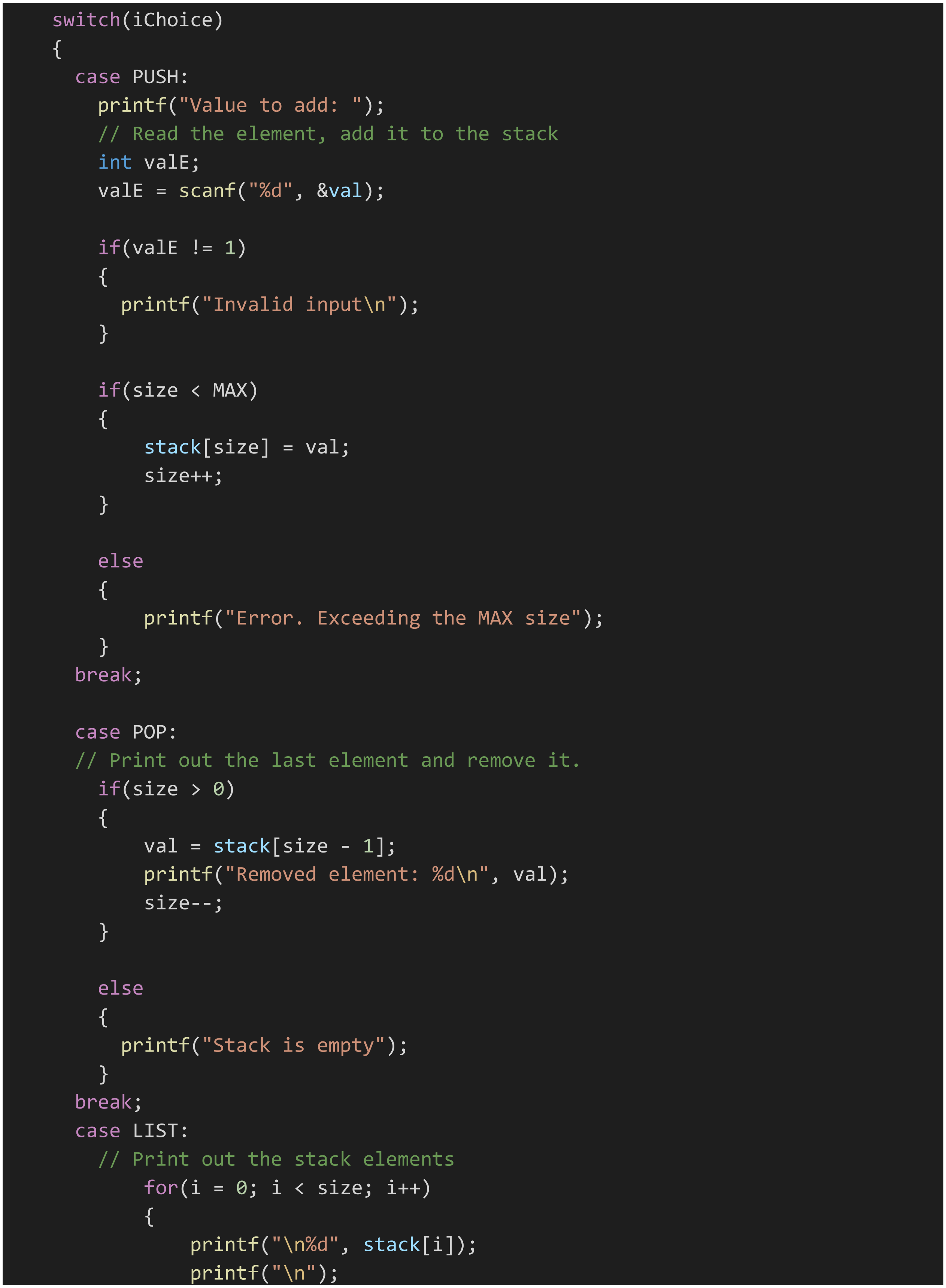
Output:



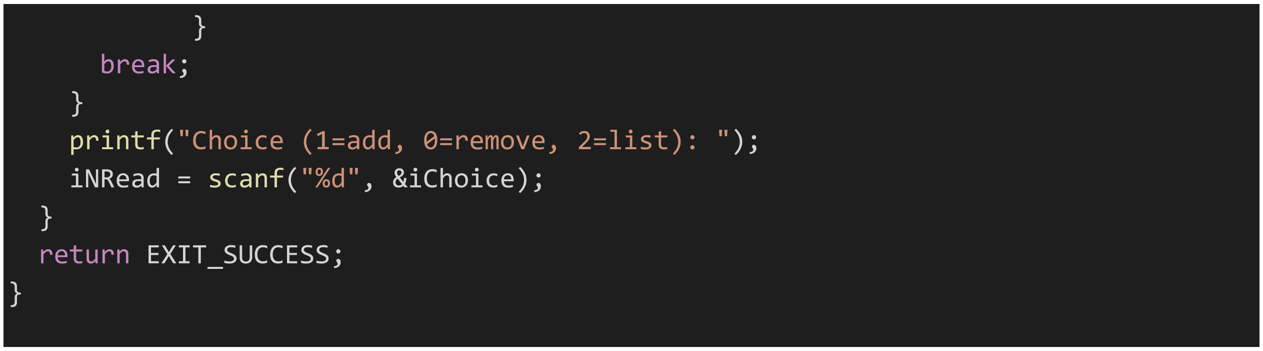
```
C:\Users\srivk>gcc C:\Users\srivk\OneDrive\Desktop\UNB\Summer2020\CS2263\Lectures\Week1\Day2_May5\nextDay3.c -o test

C:\Users\srivk>test
The minimum value of int is: -2147483648
The maximum value of int is: 2147483647
```

<u>playStack.c</u>

```c
// first.c
#include <stdio.h>
#include <stdlib.h>
#define MAX 256
#define PUSH 1
#define POP 0
#define LIST 2
int main(int argc, char* argv[])
{
    int count = 0;
    int i;
    int stack[MAX];
    int size = 0;
    int val;
    int iChoice;
    int iNRead;

  /* Processing loop */
  printf("Choice (1=add, 0=remove, 2=list): ");
  iNRead = scanf("%d", &iChoice);
  while(iNRead == 1)
  {
```

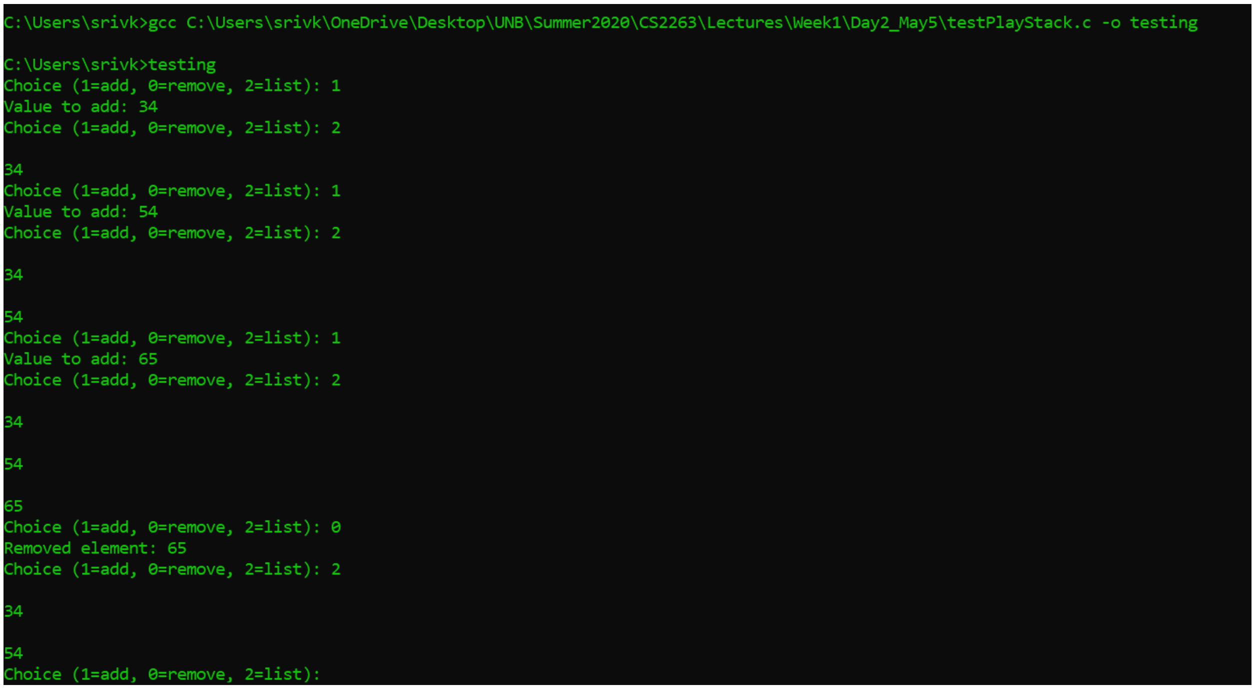


```
    switch(iChoice)
    {
      case PUSH:
        printf("Value to add: ");
        // Read the element, add it to the stack
        int valE;
        valE = scanf("%d", &val);

        if(valE != 1)
        {
          printf("Invalid input\n");
        }

        if(size < MAX)
        {
            stack[size] = val;
            size++;
        }

        else
        {
            printf("Error. Exceeding the MAX size");
        }
      break;

      case POP:
      // Print out the last element and remove it.
        if(size > 0)
        {
            val = stack[size - 1];
            printf("Removed element: %d\n", val);
            size--;
        }

        else
        {
          printf("Stack is empty");
        }
      break;
      case LIST:
        // Print out the stack elements
            for(i = 0; i < size; i++)
            {
                printf("\n%d", stack[i]);
                printf("\n");
```



```
            }
      break;
    }
    printf("Choice (1=add, 0=remove, 2=list): ");
    iNRead = scanf("%d", &iChoice);
  }
  return EXIT_SUCCESS;
}
```

Output:



```
C:\Users\srivk>gcc C:\Users\srivk\OneDrive\Desktop\UNB\Summer2020\CS2263\Lectures\Week1\Day2_May5\testPlayStack.c -o testing

C:\Users\srivk>testing
Choice (1=add, 0=remove, 2=list): 1
Value to add: 34
Choice (1=add, 0=remove, 2=list): 2

34
Choice (1=add, 0=remove, 2=list): 1
Value to add: 54
Choice (1=add, 0=remove, 2=list): 2

34

54
Choice (1=add, 0=remove, 2=list): 1
Value to add: 65
Choice (1=add, 0=remove, 2=list): 2

34

54

65
Choice (1=add, 0=remove, 2=list): 0
Removed element: 65
Choice (1=add, 0=remove, 2=list): 2

34

54
Choice (1=add, 0=remove, 2=list):
```