

기초 컴퓨터 프로그래밍

2 주차 과제(20216793 김준섭)

Exercise 1

```
1 #include <stdio.h>
2 int main(void)
3 {
4     int n1 = +2147483647; //Max value
5     int n2 = -2147483648; //Min value
6     printf("before overflow : % d\n", n1);
7     n1 = n1 + 100; //overflow occurs
8     printf("after overflow : % d\n", n1);
9     printf("before underflow : % d\n", n2);
10    n2 = n2 - 100; //underflow occurs
11    printf("after underflow : % d\n", n2);
12    return 0;
13 }
```

100 % No issues found Ln: 5 Ch: 12 Col: 15 TABS CRI

Error List

Code	Description	Project	File	Line	Suppression State
C4146	unary minus operator applied to unsigned type, result still unsigned	Project1	Source.c	5	

Exercise 2

```
1  #include <stdio.h>
2  int main(void)
3  {
4      char code1 = 'B';
5      char code2 = 66;
6      char code3 = 'C';
7      char code4 = 67;
8      char code5 = 'D';
9      char code6 = 68;
10     printf("code1 = % c\n", code1);
11     printf("code2 = % c\n", code2);
12     printf("code3 = % c\n", code3);
13     printf("code4 = % c\n", code4);
14     printf("code5 = % c\n", code5);
15     printf("code6 = % c\n", code6);
16 }
```

Microsoft Visual Studio Debug Console

```
code1 = B
code2 = B
code3 = C
code4 = C
code5 = D
code6 = D

C:\Users\david\source\repos\Project1\Debug\Project1.exe (process 173964) exited with code 0.
Press any key to close this window . . .
```

Exercise 3

Project1 (Global Scope) main()

```
1  #include <stdio.h>
2  int main()
3  {
4      char code = 'A';
5      printf("%d %d %d \n", code, code + 1, code + 2);
6      printf("%c %c %c \n", code, code + 1, code + 2);
7      return 0;
8  }
```

Microsoft Visual Studio Debug Console

```
65 66 67
A B C

C:\Users\david\source\repos\Project1\Debug\Project1.exe (process 203592) exited with code 0.
Press any key to close this window . . .
```

Exercise 4

```
Project1 (Global Scope) main()
1 #include <stdio.h>
2 int main()
3 {
4     printf("char: %d %d\n", sizeof(char), sizeof(unsigned char));
5     printf("short: %d %d\n", sizeof(short), sizeof(unsigned short));
6     printf("int: %d %d\n", sizeof(int), sizeof(200));
7     printf("long: %d %d\n", sizeof(long), sizeof(300L));
8     printf("long long: %d %d\n", sizeof(long long), sizeof(900LL));
9     printf("float: %d %d\n", sizeof(float), sizeof(3.14F));
10    printf("double: %d %d\n", sizeof(double), sizeof(3.14));
11    return 0;
12 }
```

Microsoft Visual Studio Debug Console

```
char: 1 1
short: 2 2
int: 4 4
long: 4 4
long long: 8 8
float: 4 4
double: 4 8
```

Exercise 5

```
Project1 (Global Scope) main()
1 #include <stdio.h>
2 int global_variable = 55;
3 int main()
4 {
5     int local_variable = 44;
6     printf("global_variable is %d \n", global_variable);
7     printf("local_variable is %d \n", local_variable);
8     return 0;
9 }
```

Microsoft Visual Studio Debug Console

```
global_variable is 55
local_variable is 44
```

Exercise 6

```
1 #include <stdio.h>
2 int global_variable = 55;
3 int main()
4 {
5     int local_variable = 44;
6     global_variable = 44;
7     local_variable = 55;
8     printf("global_variable is %d \n", global_variable);
9     printf("local_variable is %d \n", local_variable);
10    return 0;
11 }
```

Microsoft Visual Studio Debug Console

```
global_variable is 44
local_variable is 55
```

Exercise 7

```
1  #include <stdio.h>
2  void test();
3  int m = 22, n = 44;
4
5  int main() {
6      m = 1;
7      n = 2;
8      printf("m=%d, n=%d\n", m, n);
9      test();
10     return 0;
11 }
12
13 void test() {
14     m = 5;
15     n = 6;
16     printf("m=%d, n=%d", m, n);
17 }
```

Microsoft Visual Studio Debug Console

m=1, n=2
m=5, n=6

Exercise 8

```
1  #include <stdio.h>
2  #define N 30000
3  int main() {
4      double zero = 0;
5      printf("3000/0 = %f\n", N / zero);
6
7      return 0;
8  }
```

Microsoft Visual Studio Debug Console

3000/0 = inf

Exercise 9

```
1  #include <stdio.h>
2  int main() {
3      printf("\"Hello\"\n");
4      printf("'Halo'\n");
5      printf("\\\\NICE\\\\");
6      return 0;
7  }
```

Microsoft Visual Studio Debug Console

"Hello"
'Halo'
\\NICE\\

Exercise 10

```
1  #include <stdio.h>
2  int main() {
3      short a = 4;
4      int b = 15;
5      printf("a+b=%d, size is %d\n", a + b, sizeof(a + b));
6      return 0;
7  }
```

Microsoft Visual Studio Debug Console

a+b=19, size is 4