"Dragon Realm"

Using Bloodshed Dev-C++

Heejin Park

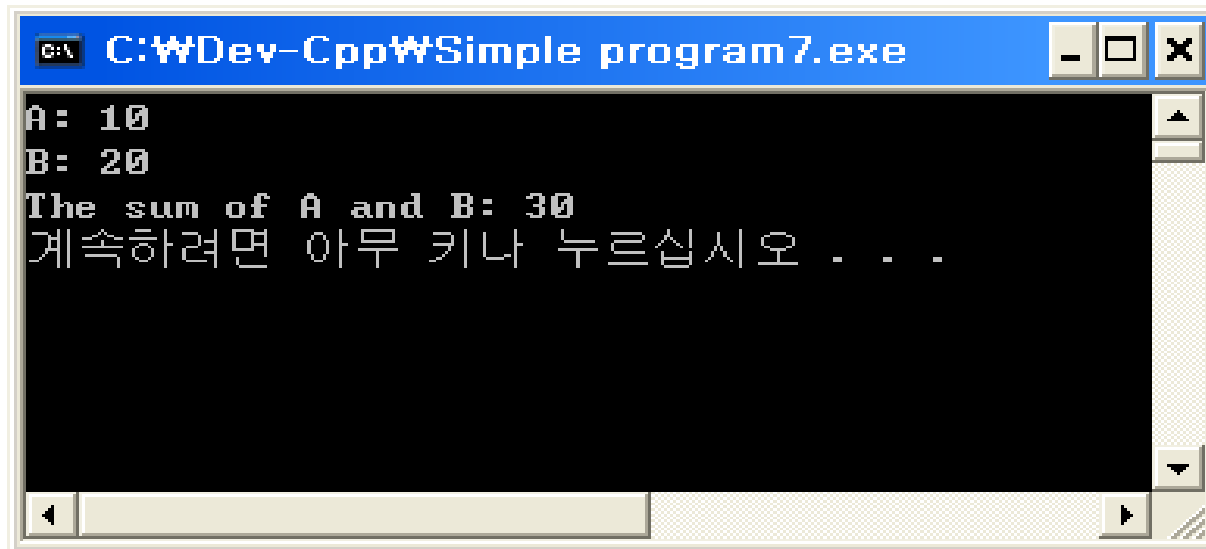*Hanyang University*

Introduction

■ **The "Dragon Realm" Game**

- Simple program 1
- User defined function

- Simple program 2
- `strcmp()` function

- Simple program 3
- `Sleep()` function

■ **The "Dragon Realm" Game with Dev-C++**

A Simple Example of Dev-C++

■ **Simple program1**

- **User defined function**


```
C:₩Dev-Cpp₩Simple program7.exe

A: 10
B: 20
The sum of A and B: 30
계속하려면 아무 키나 누르십시오 . . .
```

A Simple Example of Dev-C++

■ **Simple program1**
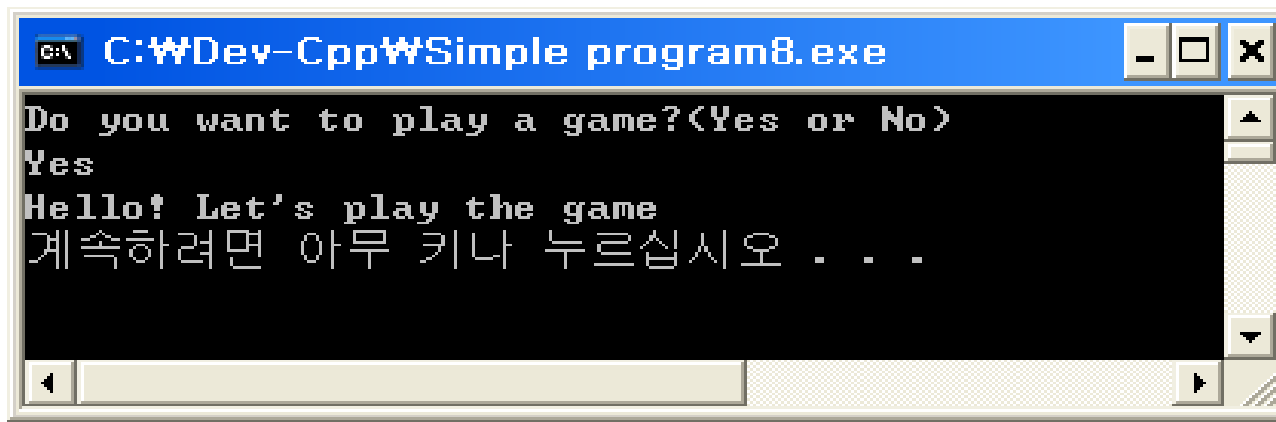
- **Source code**

```c
/* Simple program(7) */

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

int sum(int a, int b);

int main(void){
    int a = 10, b = 20;
    sum(a, b);

    system("PAUSE");
    return 0;
}

int sum(int a, int b){
    printf("A: %d\n", a);
    printf("B: %d\n", b);
    printf("The sum of A and B: %d\n", a+b);
}
```

A Simple Example of Dev-C++

■ **Simple program2**

- **strcmp( )** **function**

A Simple Example of Dev-C++

■ Simple program2

- ### Source code

```c
/* Simple program(8) */

#include <stdio.h>
#include <stdlib.h>
#include <string.h>

int main(void){

    char str[5];

    printf("Do you want to play a game?(Yes or No) \n");
    scanf("%s", str);

    if(strcmp(str, "Yes") == 0)
        printf("Hello! Let's play the game\n");

    else if(strcmp(str, "No") == 0)
        printf("Good bye!\n");

    system("PAUSE");
    return 0;
}
```

A Simple Example of Dev-C++

■ **Simple program2**

- **`strcmp()`function**
- Compare characters of two strings .

- Return Value

  - if Return value if **< 0** then it indicates **S1 is <u>less</u> than S2**

  - if Return value if **> 0** then it indicates **S1 is <u>greater</u> than S2**

  - if Return value if **= 0** then it indicates **S1 is <u>equal</u> to S2**

A Simple Example of Dev-C++

■ **Simple program2**

- **Logical operators in c**

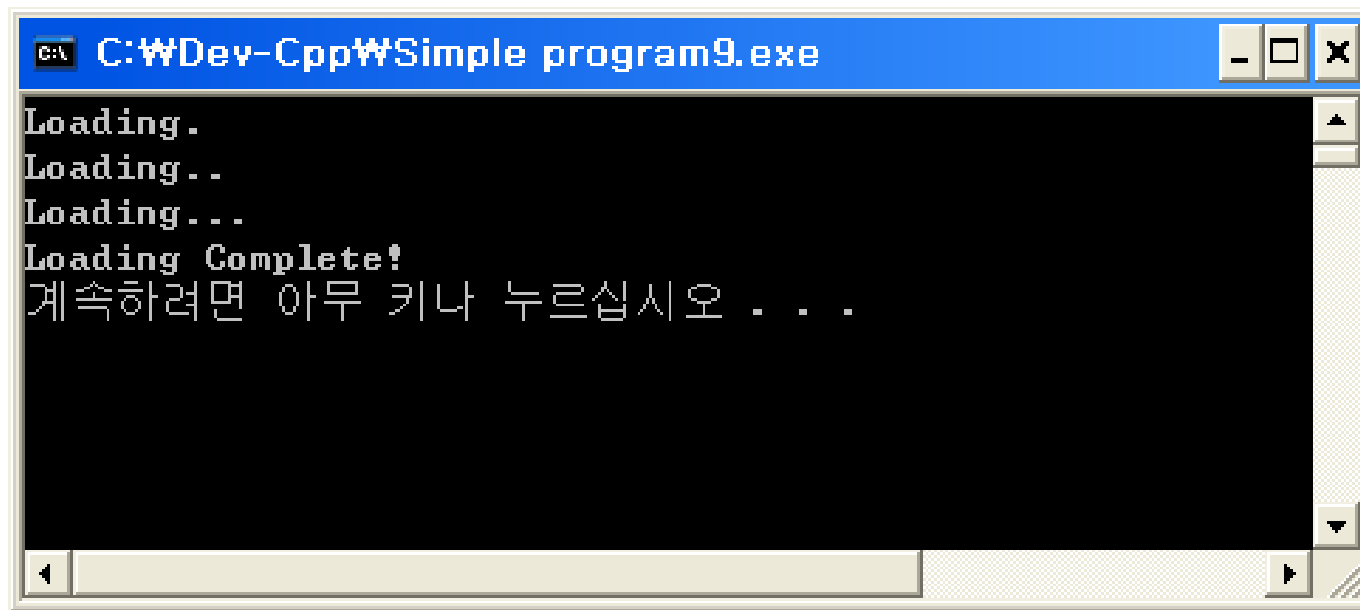| Operator name	Python syntax	C syntax
Logical AND	**a and b**	**a && b**
Logical OR	**a or b**	**a || b**

- **example**

```c
if(strcmp(str, "Yes") == 0 || strcmp(str, "Y") == 0)
    printf("Hello! Let's play the game\n");
```

A Simple Example of Dev-C++

■ **Simple program3**

- **Sleep( )function**

A Simple Example of Dev-C++

■ **Simple program3**

- `Sleep()`**function**
- Suspend execution for an interval of time.

- The time interval for which execution is to be suspended, in milliseconds.

- **example**

```
#include <windows.h>

int main(void){
    Sleep(2000);
……
```

– number is in milliseconds 2Sec = 2000 Milliseconds.

A Simple Example of Dev-C++

■ **Simple program3**

- **Source code**

```c
/* Simple program(9) */

#include <stdio.h>
#include <stdlib.h>
#include <windows.h>

int main(void){

    printf("Loading.\n");
    Sleep(3000);
    printf("Loading..\n");
    Sleep(2000);
    printf("Loading...\n");
    Sleep(1000);
    printf("Loading Complete!\n");

    system("PAUSE");
    return 0;
}
```

The "Dragon Realm" Game with Dev-C++

■ **Python program "Dragon Realm"**

```
C:₩Dev-Cpp₩Dragon.exe                                    _ □ ×

You are in a land full of dragons. In front of you,
you see two caves. In one cave, the dragon is friendly
and will share his treasure with you. The other dragon
is greedy and hungry, and will eat you on sight.

Which cave will you go into? (1 or 2)
1
You approach the cave...
It is dark and spooky...
A large dragon jumps out in front of you! He opens his jaws and...

Gobbles you down in one bite!
Do you want to play again? (yes or no)
no
```

The "Dragon Realm" Game with Dev-C++

- **Python source code**

```
import random
import time
```

- **Dev-C++ source code**

```c
#include <stdio.h>
#include <stdlib.h>
#include <windows.h>
#include <string.h>
#include <time.h>

int displayIntro(void);
int chooseCave(void);
int checkCave(int chooseCave);
```

The "Dragon Realm" Game with Dev-C++

- **Python source code**

```python
def displayIntro():
    print 'You are in a land full of dragons. In front of you,'
    print 'you see two caves. In one cave, the dragon is friendly'
    print 'and will share his treasure with you. The other dragon'
    print 'is greedy and hungry, and will eat you on sight.'
    print
```

- **Dev-C++ source code**

```c
int displayIntro(void){
    printf("You are in a land full of dragons. In front of you,\n");
    printf("you see two caves. In one cave, the dragon is friendly\n");
    printf("and will share his treasure with you. The other dragon\n");
    printf("is greedy and hungry, and will eat you on sight.\n\n");
}
```

The "Dragon Realm" Game with Dev-C++

- **Python source code**

```python
def chooseCave():
    cave = ''
    while cave != '1' and cave != '2':
        print 'Which cave will you go into? (1 or 2)'
        cave = raw_input()

    return cave
```

- **Dev-C++ source code**

```c
int chooseCave(void){
    int cave;
    cave = 0;

    while (cave != 1 && cave != 2){
        printf("Which cave will you go into? (1 or 2)\n");
        scanf("%d", &cave);

    return cave;
    }
}
```

The "Dragon Realm" Game with Dev-C++

- **Python source code**

```python
def checkCave(chosenCave):
    print 'You approach the cave...'
    time.sleep(2)
    print 'It is dark and spooky...'
    time.sleep(2)
    print 'A large dragon jumps out in front of you! He opens his jaws and...'
    print
    time.sleep(2)
```

- **Dev-C++ source code**

```cpp
int checkCave(int chooseCave){
    int friendlyCave;

    printf("You approach the cave...\n");
    Sleep(2000);
    printf("It is dark and spooky...\n");
    Sleep(2000);
    printf("A large dragon jumps out in front of you! He opens his jaws and...\n\n");
    Sleep(2000);
```

The "Dragon Realm" Game with Dev-C++

- **Python source code**

```python
friendlyCave = random.randint(1, 2)

if chosenCave == str(friendlyCave):
    print 'Gives you his treasure!'
else:
    print 'Gobbles you down in one bite!'
```

- **Dev-C++ source code**

```c
    srand(time(NULL));
    friendlyCave=(rand()%2)+1;

    if(chooseCave == friendlyCave)
        printf("Gives you his treasure!\n");

    else
        printf("Gobbles you down in one bite!\n");
}
```

The "Dragon Realm" Game with Dev-C++

- **Python source code**

```python
playAgain = 'yes'
while playAgain == 'yes' or playAgain == 'y':

    displayIntro()
    caveNumber = chooseCave()
    checkCave(caveNumber)

    print 'Do you want to play again? (yes or no)'
    playAgain = raw_input()
```

- **Dev-C++ source code**

```c
int main(void){
    char playAgain[5] = "yes";
    int caveNumber;

    while(strcmp(playAgain, "yes") == 0 || (strcmp(playAgain, "y") == 0)){
        displayIntro();
        caveNumber = chooseCave();
        checkCave(caveNumber);

        printf("Do you want to play again? (yes or no)\n");
        scanf("%s", playAgain);
    }
    system("PAUSE");
    return 0;
}
```

The "Dragon Realm" Game with Dev-C++

- **Dev-C++ source code (1/3)**

```c
/* Dragon Realm */

#include <stdio.h>
#include <stdlib.h>
#include <windows.h>
#include <string.h>
#include <time.h>



int displayIntro(void);
int chooseCave(void);
int checkCave(int chooseCave);

int main(void){
    char playAgain[5] = "yes";
    int caveNumber;

    while(strcmp(playAgain, "yes") == 0 || (strcmp(playAgain, "y") == 0)){
        displayIntro();
        caveNumber = chooseCave();
        checkCave(caveNumber);

        printf("Do you want to play again? (yes or no)\n");
        scanf("%s", playAgain);
    }
    system("PAUSE");
    return 0;
}
```

The "Dragon Realm" Game with Dev-C++

- **Dev-C++ source code (2/3)**

```c
int displayIntro(void){
    printf("You are in a land full of dragons. In front of you,\n");
    printf("you see two caves. In one cave, the dragon is friendly\n");
    printf("and will share his treasure with you. The other dragon\n");
    printf("is greedy and hungry, and will eat you on sight.\n\n");
}

int chooseCave(void){
    int cave;
    cave = 0;

    while (cave != 1 && cave != 2){
        printf("Which cave will you go into? (1 or 2)\n");
        scanf("%d", &cave);

    return cave;
    }
}
```

The "Dragon Realm" Game with Dev-C++

- **Dev-C++ source code (3/3)**

```c
int checkCave(int chooseCave){
    int friendlyCave;

    printf("You approach the cave...\n");
    Sleep(2000);
    printf("It is dark and spooky...\n");
    Sleep(2000);
    printf("A large dragon jumps out in front of you! He opens his jaws and...\n\n");
    Sleep(2000);

    srand(time(NULL));
    friendlyCave=(rand()%2)+1;

    if(chooseCave == friendlyCave)
        printf("Gives you his treasure!\n");

    else
        printf("Gobbles you down in one bite!\n");
}
```