Project 1

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Project 1 Rock Scissors Paper

- Write a program “Rock Scissors Paper”.
- Project guideline is as follows.

Main Menu

- Firstly, the program shows a menu like figure 1
  - “My state”, “RSP”, and “End” sub-menu
- The program should receive a number only among 1, 2 and 3
- Otherwise, it should receive a number again

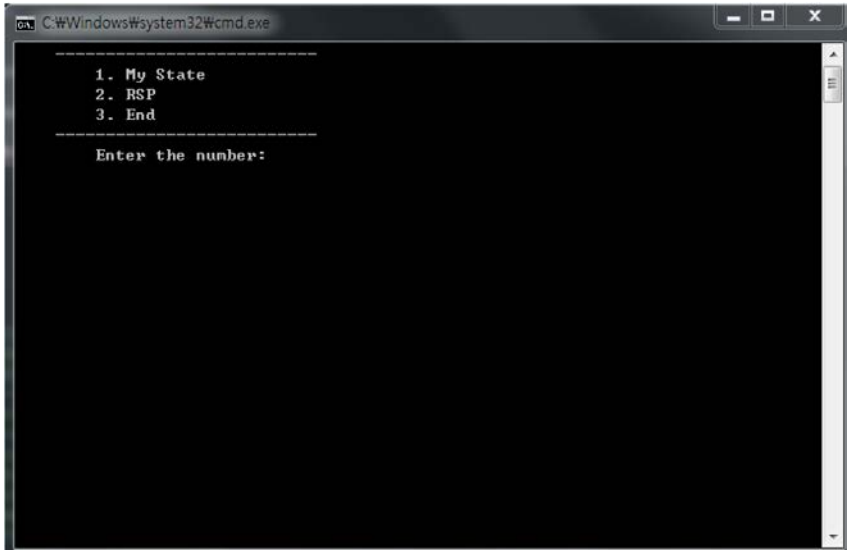


Figure 1

My State Menu

- The program shows the user's state (Fig. 2)
  - Current cash
  - The record of the number of 'win' and 'lose'
- The program goes back to main menu by entering any key

Figure 2

Rock Scissors Paper (RSP) Menu

- The program receives a betting cash (Fig. 3)
- It should be not bigger than the current cash
  - The program should deal with the exception

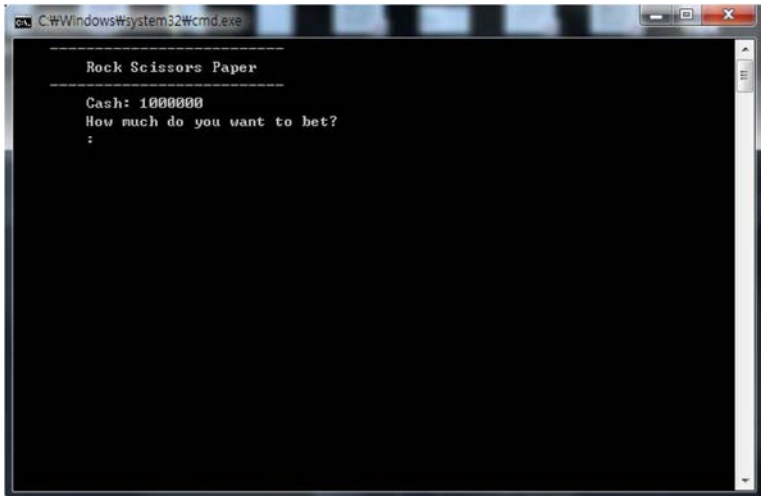


Figure 3

Figure 4

Rock Scissors Paper (RSP) Menu

- After that, start the game! (Fig. 5)
- The program waits for user's input (Fig. 6)

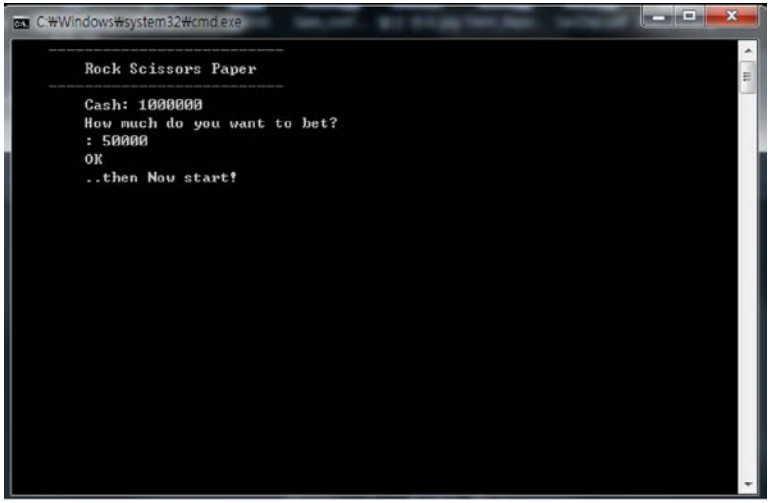


Figure 5

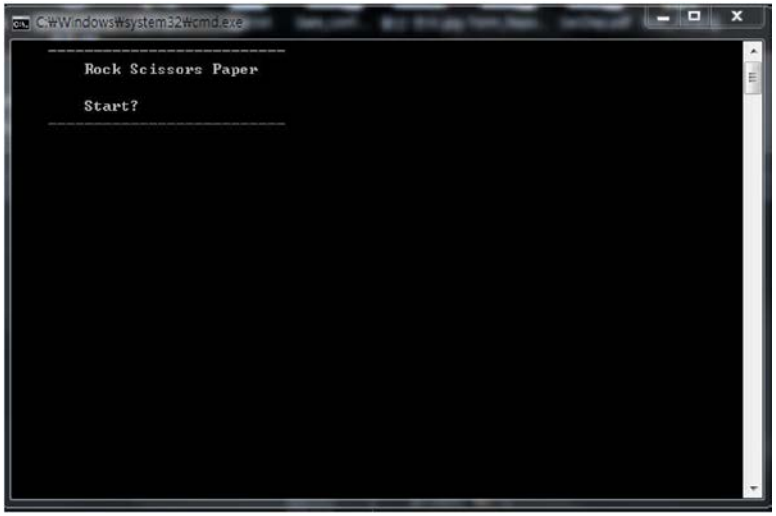


Figure 6

Rock Scissors Paper (RSP) Menu

- If the user enters any key, the game starts
- The program prints “3…”, “2..”, and “1.” by utilizing “Sleep()” function to control the interval of time (Fig. 7)
  - Counting numbers per second

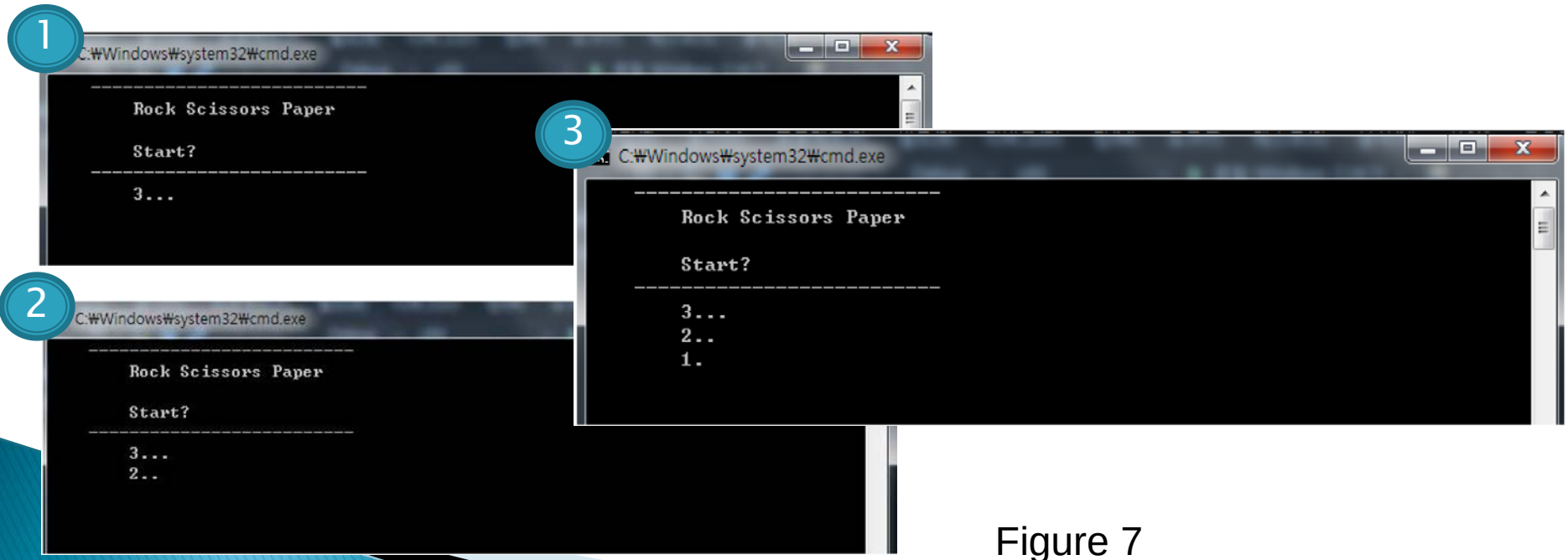


Figure 7

Rock Scissors Paper (RSP) Menu

- In Fig. 8, “rock”, “scissors”, and “paper!” are also printed with time interval 0.5 sec

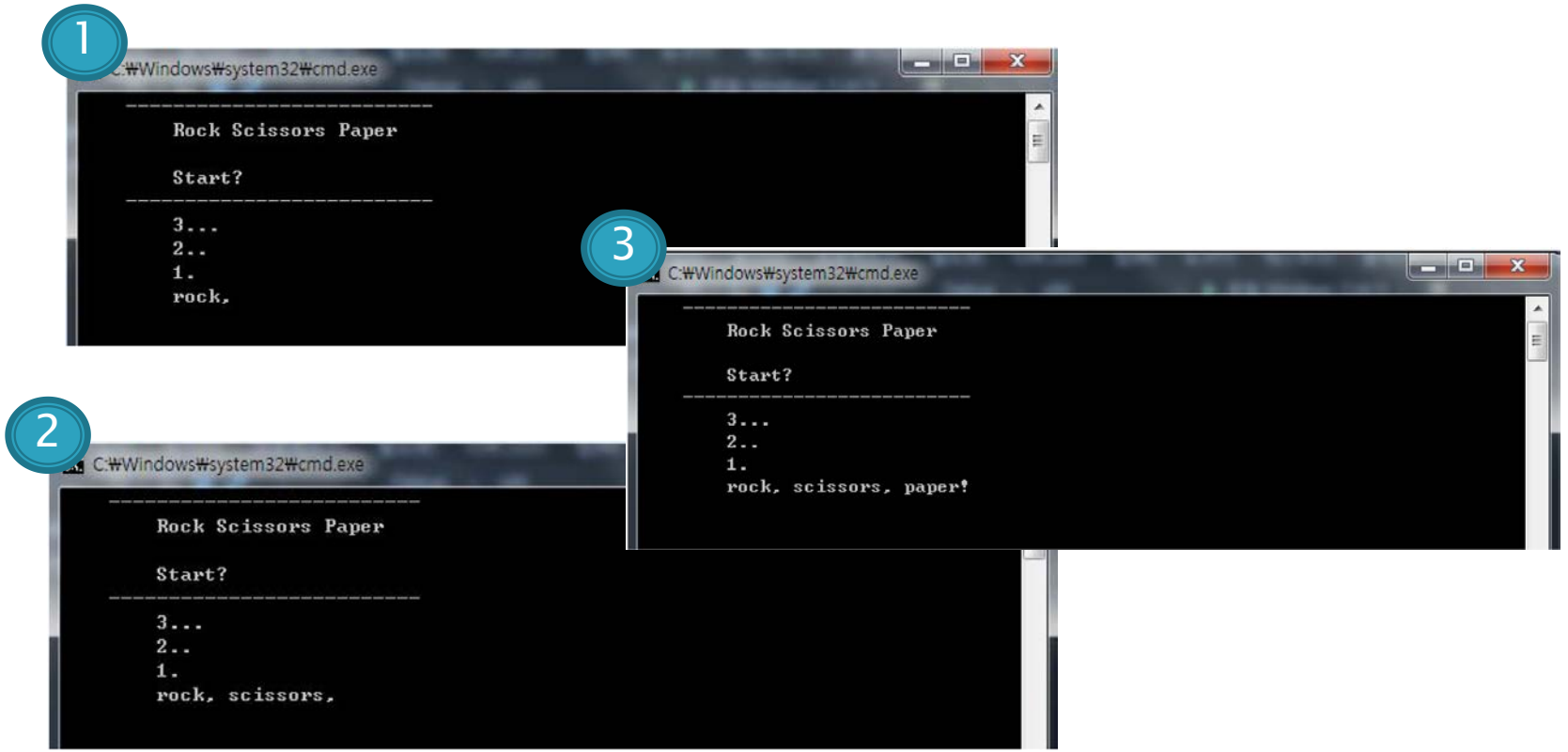


Figure 8

Rock Scissors Paper (RSP) Menu

- The user should input one of the RSP within the counting time (that is, 4.5sec)
  - The key ‘q’ – Rock
  - The key ‘w’ – Scissors
  - The key ‘e’ – Paper
- Your computer must choose one of RSP randomly

Rock Scissors Paper (RSP) Menu

- If the user does not enter any key, loses the game (Fig. 9)

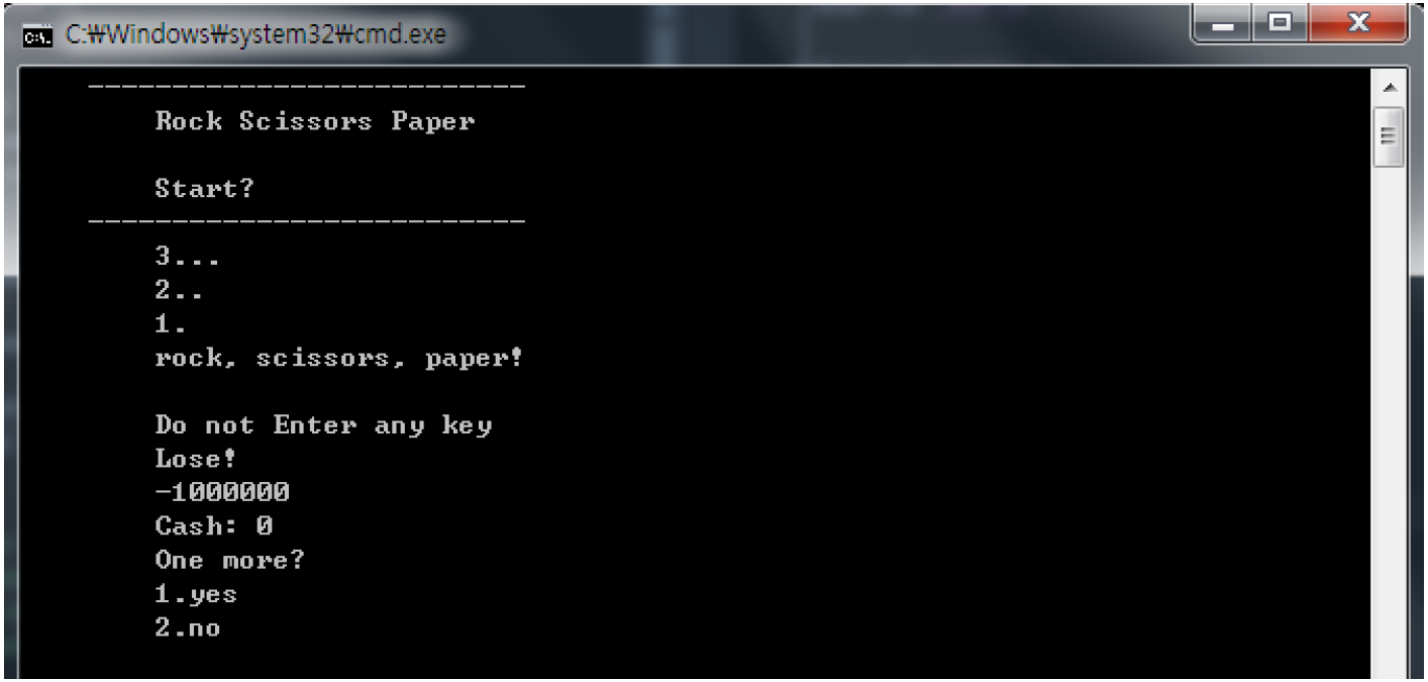


Figure 9

Rock Scissors Paper (RSP) Menu

- If the user plays a draw, restart the game (Fig. 10)

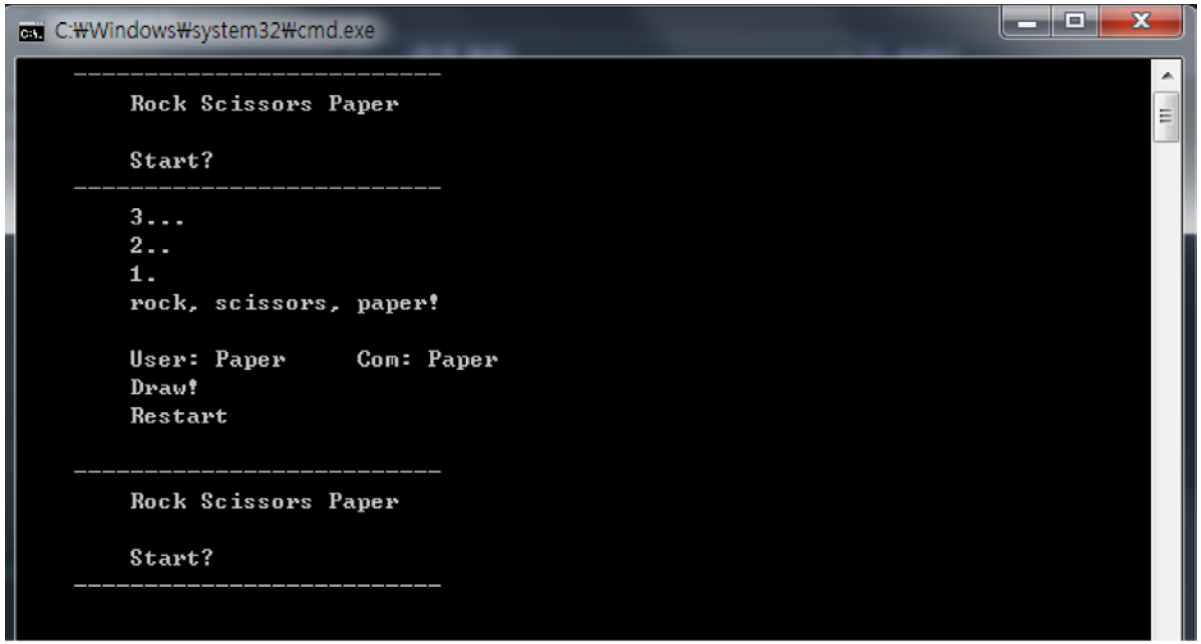


Figure 10

Rock Scissors Paper (RSP) Menu

- If the user wins the game, he earns the cash (Fig. 11)
- If the user loses the game, he loses the cash (Fig. 12)
  - If the current cash becomes under 0, the program exits automatically

- When the user selects 1, restart the game
- When the user selects 2, go back to the main menu

Figure 11

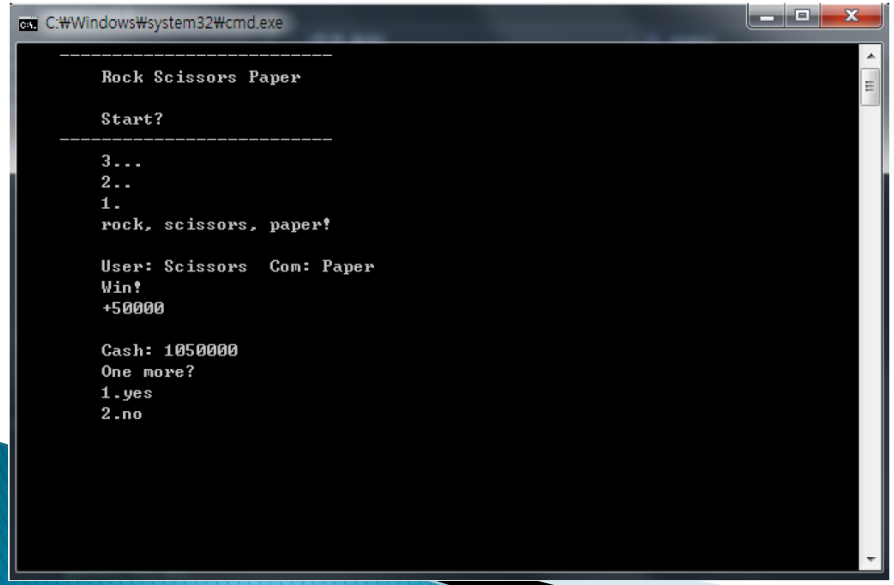
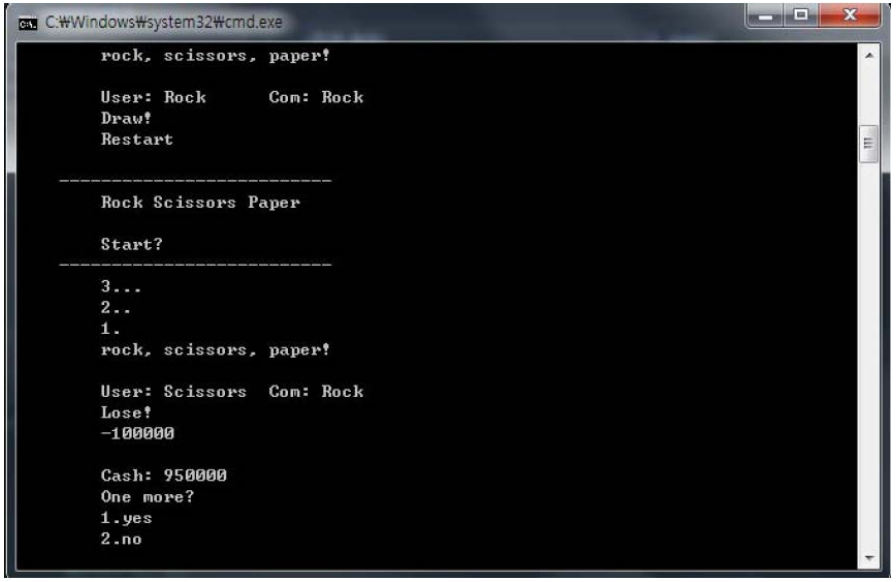


Figure 12



Project1 Hint – Keyboard input

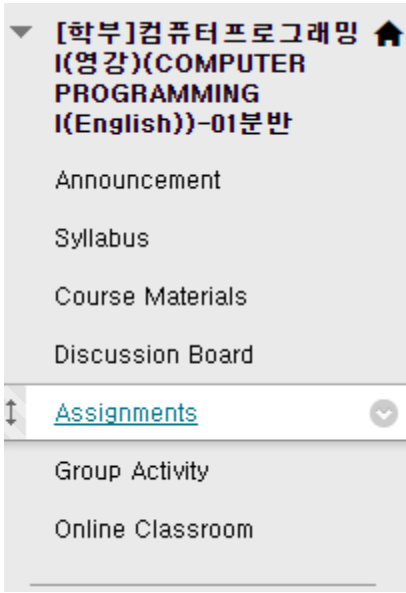
- In front of the function name, append underscore(_)
- "_kbhit()" function returns 1 if there is a user input and 0 otherwise (It is included in "conio.h")
- "_getch()" function returns a value of (keyboard) input
  - For example, if you enter 'q', the function returns 113

- You can write a code like the following (You can use "switch" instead of "if")

```
If(_kbhit()){
    If(_getch() == 113){
    }
}
```

Project 1

- Submit a file “2016123456_proj1.zip”
  - Source File(.c), Executable File(.exe)



- BlackBoard(kulms.korea.ac.kr) → Assignments
- Due Date : 2016/04/29 23:59