Department of Electrical and Electronic Engineering

EEE102 C++ Programming and Software Engineering

Assignment4 Inheritance and Polymorphism[1]

SDP Report

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I certify that I have read and understood the University's *Policy for dealing with Plagiarism, Collusion and the Fabrication of Data* With reference to this policy, I certify that:

- My work does not contain any instances of plagiarism and/or collusion.
- My work does not contain any fabricated data.

By handing in my assignment for marking, I formally declare that all the above information is true to the best of my knowledge and belief.

Signature: Zheng Sun

[1]Last updated on April 18, 2017

1. Problem Statement:

This task aims to implement concepts of class Inheritance and dynamic polymorphism and to reinforce the understanding of OOP by practice code reuse. Overall, the object of the assignment is clear and lucid.

a) Fill in the seven incomplete code gaps to make the code able to be compiled and run by implement logic deduction with knowledge of inheritance.

b) Develop two new role classes (archer and mage) with attributes different from each other inherited from class player. Introduce attribute luck.

c) Modify the main code to deal with erroneous input and new attributes of the role and the combat to make the RPG both more robust and playful.

2. Analysis:

a) Inputs:

1. String type as player's name. → std::geline(cin, str)
2. Int type as job and command selection → int intParser() by@myself
3. Char type when exiting the game → char charParser() by@myself

b) Output:

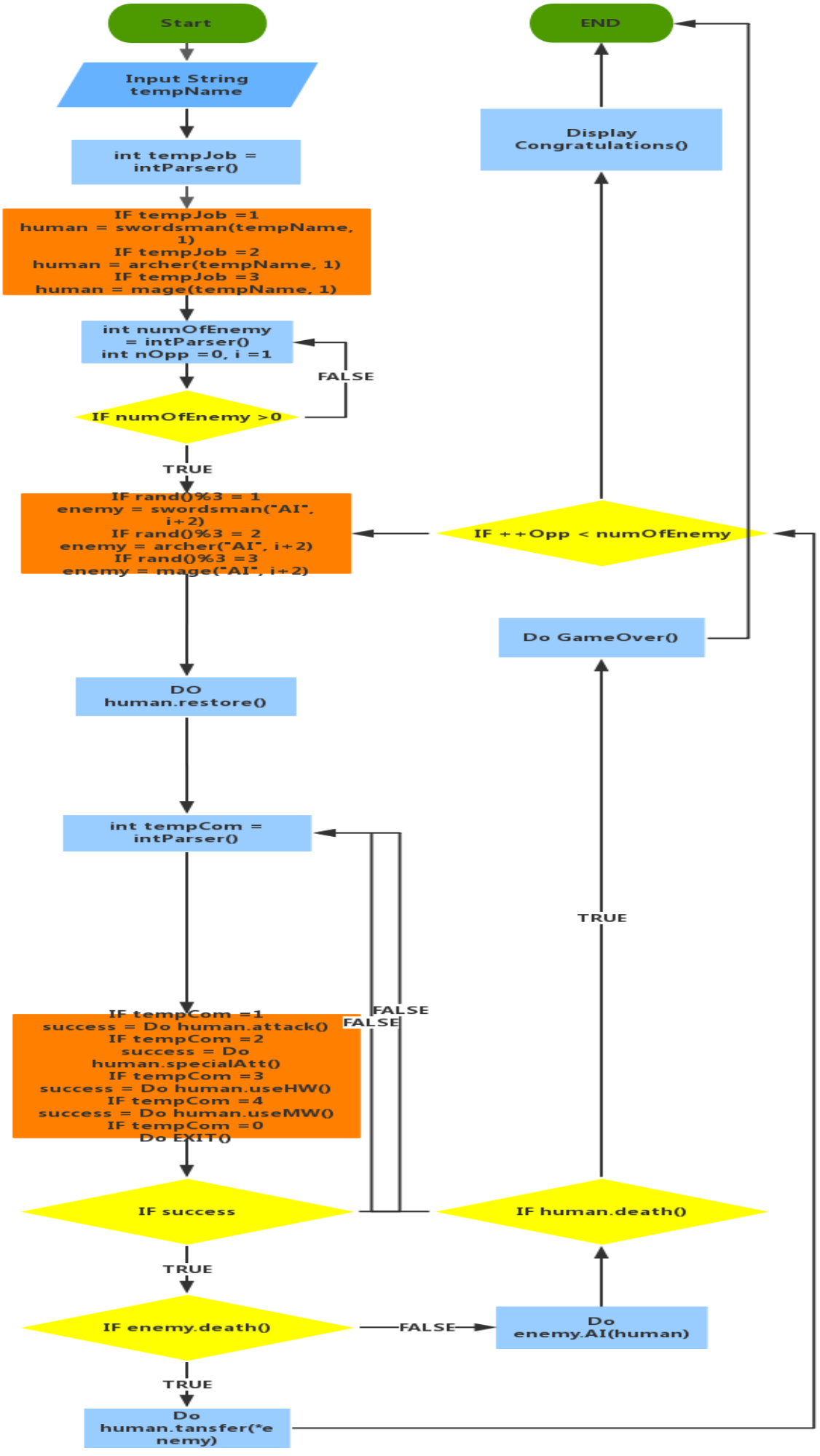
1. Interactive instructions prompt user to input name, select job, give orders.
2. Informative notice show: current status of the player and opponents to help make decision, results of each combat turn, and LV up information.

c) Extra and bonus characteristics

1. Attribute **luck** added to calculate the evasion rate and critical attack rate.
2. Generally, swordsman →archer → mage → swordsman
3. **swordsman:** high growth in AP & DP & HP, low in MP, speed, luck
   archer: high growth in speed & luck →highly evasive
   mage: high growth in intelligence → ignore DP
   high critical attack factor → sometimes one shoot to kill
4. Display different names of normal & special attack of different jobs
5. Choose the number of opponents.
6. Change mistake info to the correct one, e.g. Magic water increase MP by 100, not 80 as originally presented.
7. Many other false or unreasonable arrangements changed, it is recommended to play the game and look at the code to draw conclusion.

3. Design

a) main() function design


Start
Input String tempName
int tempJob = intParser()
IF tempJob =1 human = swordsman(tempName, 1) IF tempJob =2 human = archer(tempName, 1) IF tempJob =3 human = mage(tempName, 1)
int numOfEnemy = intParser() int nOpp =0, i =1
FALSE
IF numOfEnemy >0
TRUE
IF rand()%3 = 1 enemy = swordsman("AI", i+2) IF rand()%3 = 2 enemy = archer("AI", i+2) IF rand()%3 =3 enemy = mage("AI", i+2)
DO human.restore()
int tempCom = intParser()
IF tempCom =1 success = Do human.attack() IF tempCom =2 success = Do human.specialAtt() IF tempCom =3 success = Do human.useHW() IF tempCom =4 success = Do human.useMW() IF tempCom =0 Do EXIT()
FALSE
FALSE
IF success
TRUE
IF enemy.death()
FALSE
Do enemy.AI(human)
TRUE
Do human.tansfer(*enemy)
IF ++Opp < numOfEnemy
Display Congratulations()
END
Do GameOver()
TRUE
IF human.death()

b) Class Design: 1.CRC cards and 2.hierarchical UML class graph

1. CRC cards of classes

Class: container	
Responsibility: Hold information of inventory and provide interface for player to access and manipulate inventory. Display contents of the inventory.	**Collaborators:** player

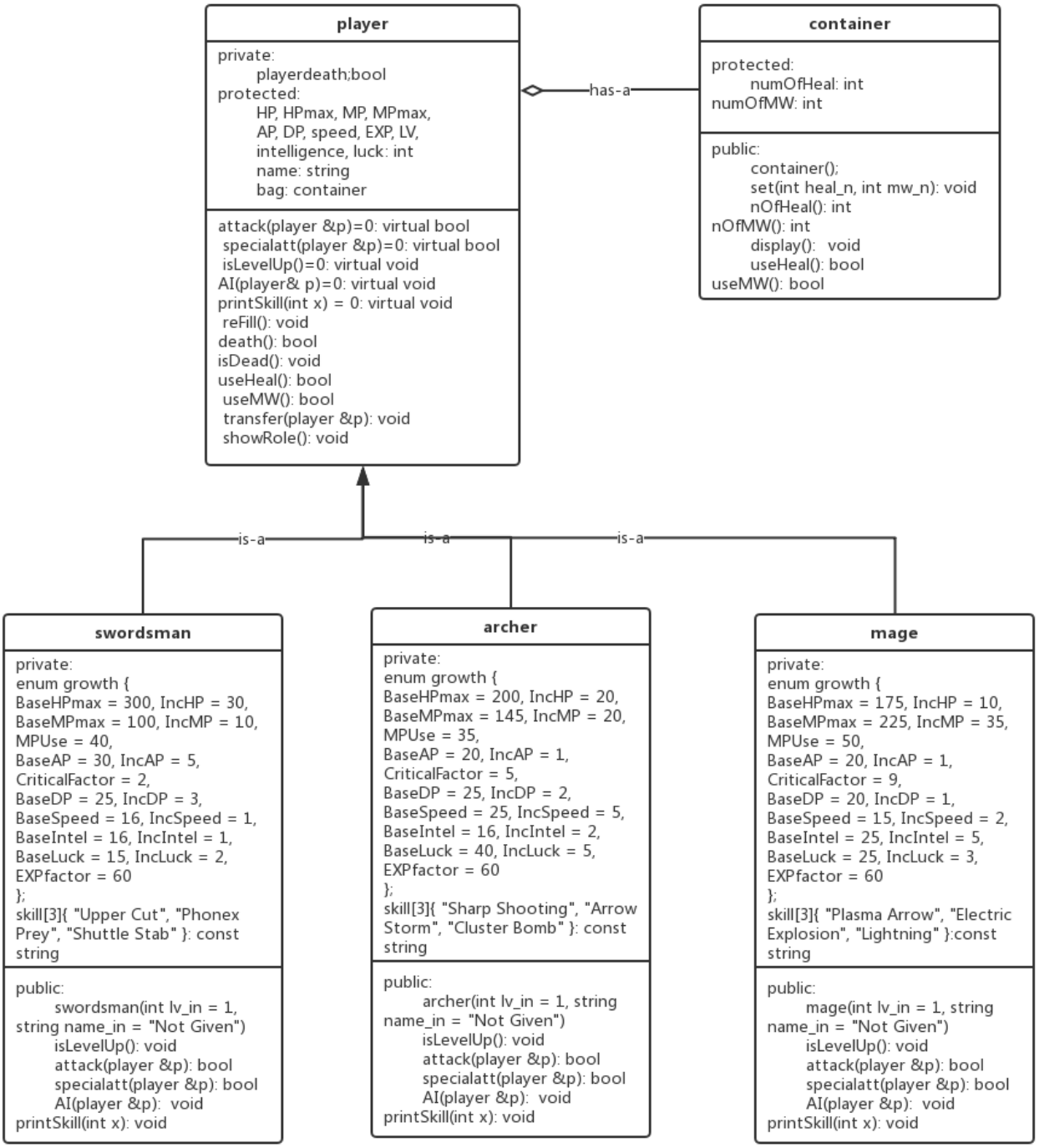
Class: player	
Responsibility: Provide dynamic polymorphism for the implementation of 3 subclasses. Hold basic common data members and role behaviours for inheritance. Provide interface for container class manipulation. Display full role info and result of every turn of the combats.	**Collaborators:** swordsman archer mage container

Class: swordsman	
Responsibility: Hold specific initial and growth data members and behaviours of the role ***swordsman***. Collaborating with inherited base class player, conduct combats of every turn.	**Collaborators:** player

Class: archer	
Responsibility: Hold specific initial and growth data members and behaviours of the role ***archer***. Collaborating with inherited base class player, conduct combats of every turn.	**Collaborators:** player

Class: mage	
Responsibility: Hold specific initial and growth data members and behaviours of the role ***mage***. Collaborating with inherited base class player, conduct combats of every turn.	**Collaborators:** player

2.Hierarchical UML class graph



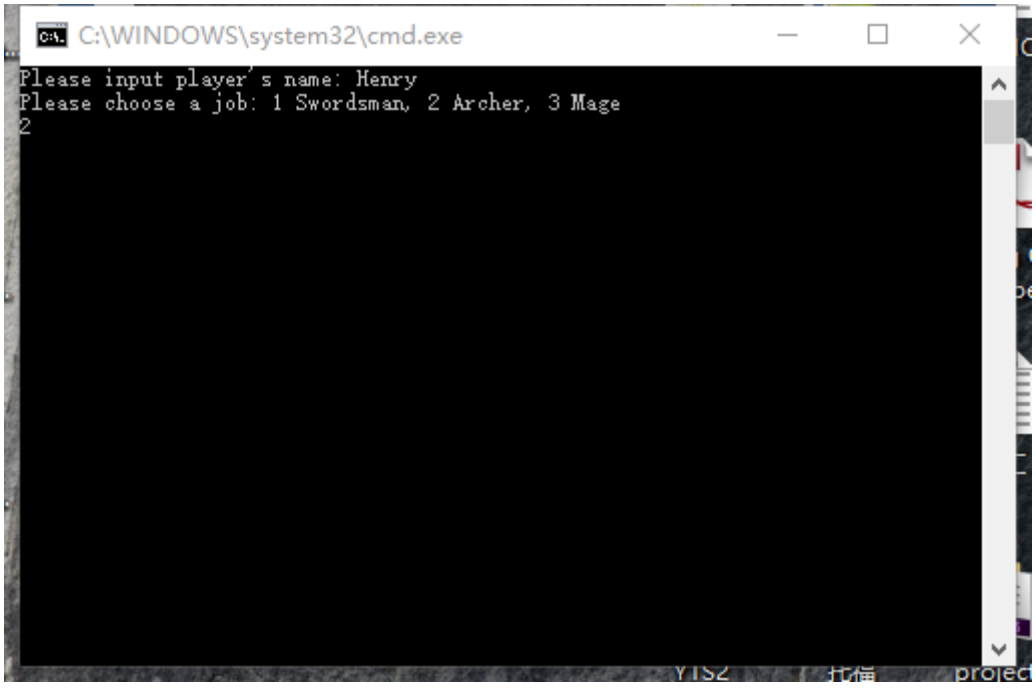
4. Implementation:

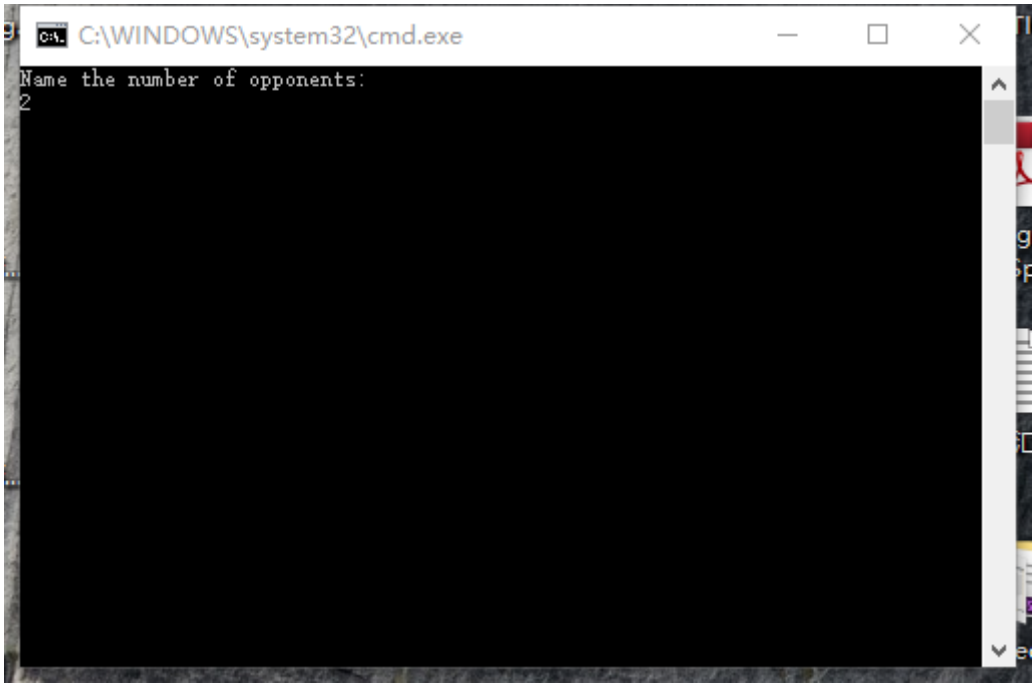
EEE102_Assessment_4\Task2\container.h
EEE102_Assessment_4\Task2\container.cpp
EEE102_Assessment_4\Task2\player.h
EEE102_Assessment_4\Task2\player.cpp
EEE102_Assessment_4\Task2\swordsman.h
EEE102_Assessment_4\Task2\swordsman.cpp

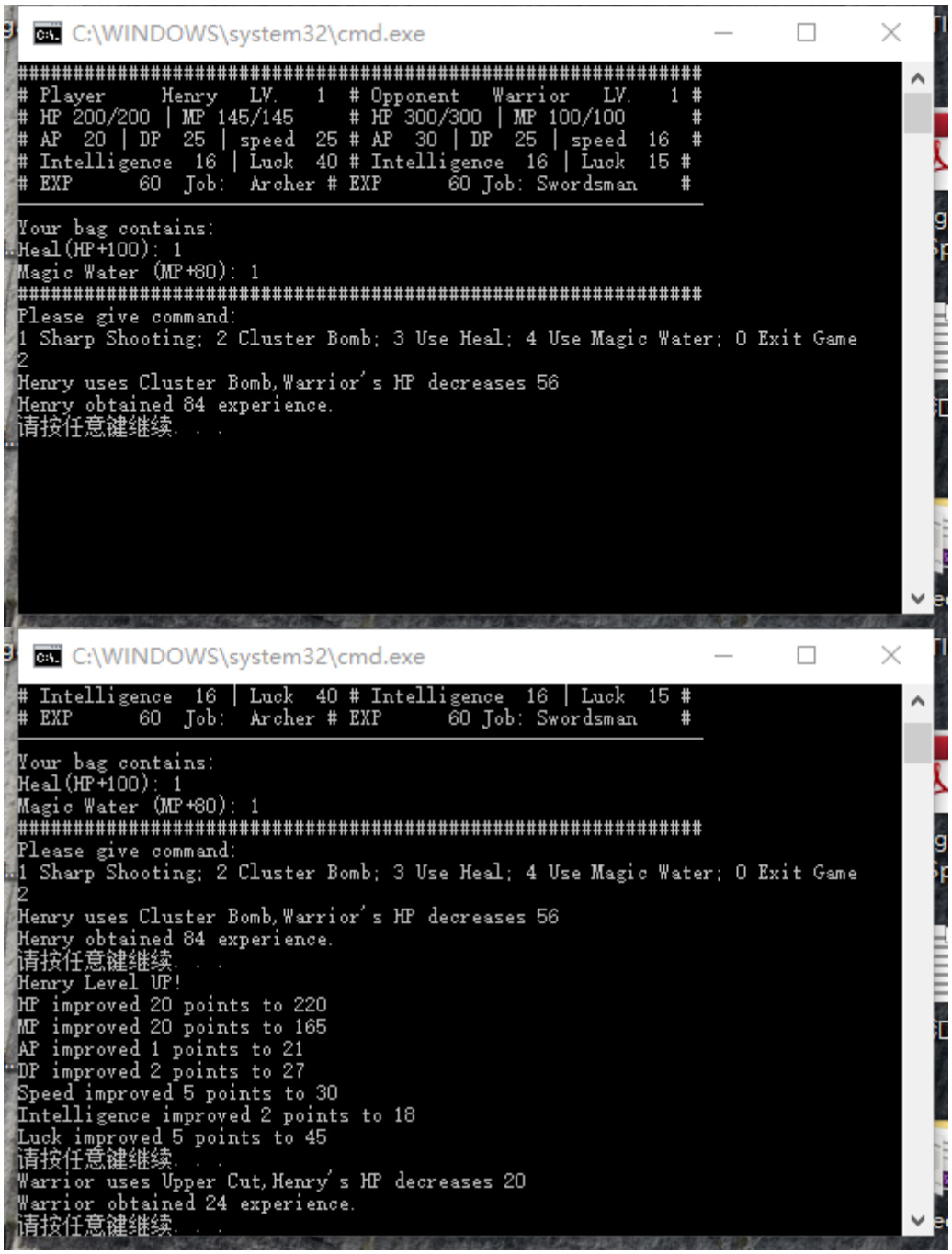
EEE102_Assessment_4\Task2\archer.h
EEE102_Assessment_4\Task2\archer.cpp
EEE102_Assessment_4\Task2\mage.h
EEE102_Assessment_4\Task2\mage.cpp
EEE102_Assessment_4\Task2\scorce.cpp

5. Testing

a) Ordinary Testing, using archer, 2 opponents randomly happen to be swordsman.

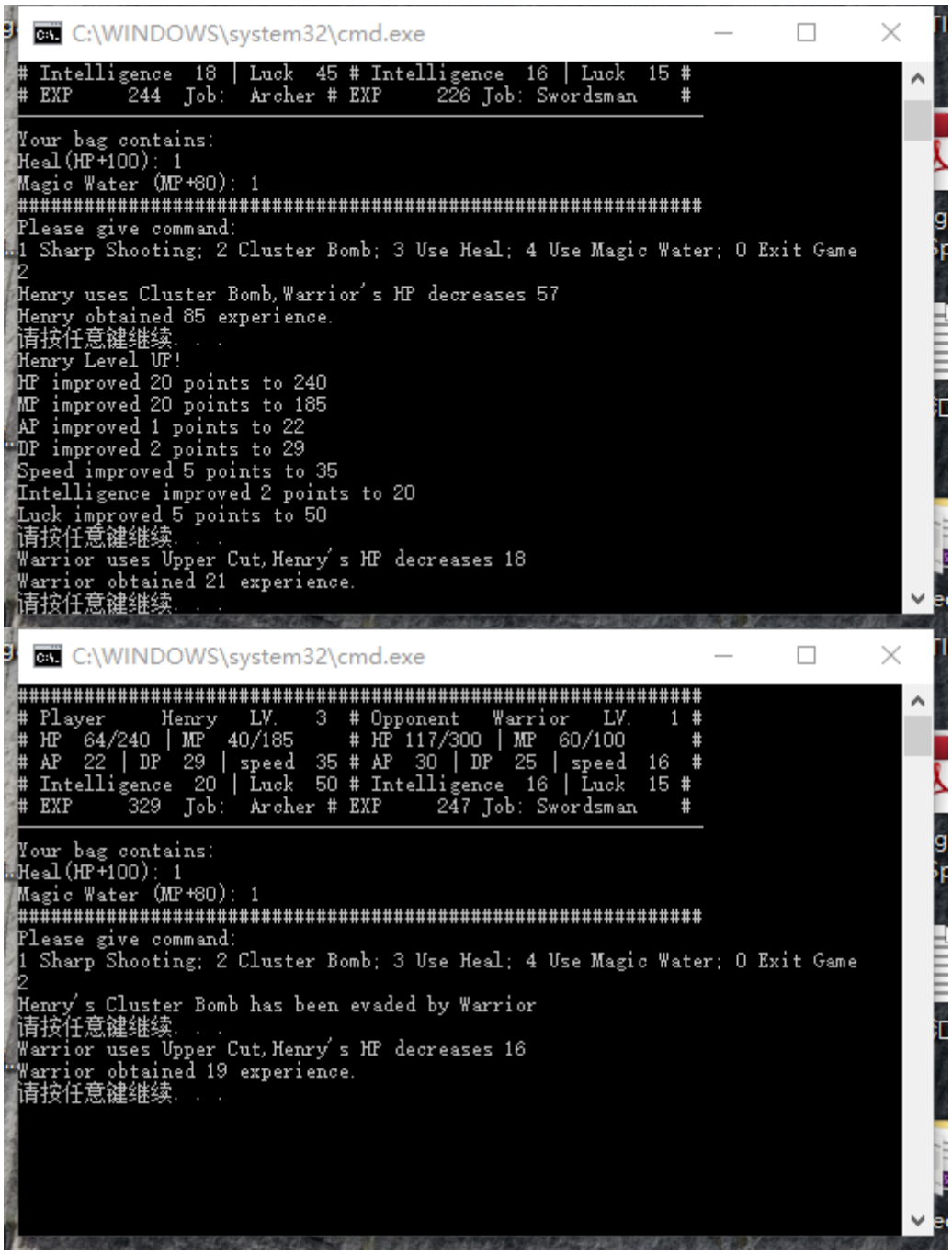





C:\WINDOWS\system32\cmd.exe
Player Henry LV. 1 # Opponent Warrior LV. 1
HP 200/200 | MP 145/145 # HP 300/300 | MP 100/100
AP 20 | DP 25 | speed 25 # AP 30 | DP 25 | speed 16
Intelligence 16 | Luck 40 # Intelligence 16 | Luck 15
EXP 60 Job: Archer # EXP 60 Job: Swordsman
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+80): 1
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
Henry uses Cluster Bomb,Warrior's HP decreases 56
Henry obtained 84 experience.
请按任意键继续. . .
C:\WINDOWS\system32\cmd.exe
Intelligence 16 | Luck 40 # Intelligence 16 | Luck 15
EXP 60 Job: Archer # EXP 60 Job: Swordsman
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+80): 1
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
Henry uses Cluster Bomb,Warrior's HP decreases 56
Henry obtained 84 experience.
请按任意键继续. . .
Henry Level UP!
HP improved 20 points to 220
MP improved 20 points to 165
AP improved 1 points to 21
DP improved 2 points to 27
Speed improved 5 points to 30
Intelligence improved 2 points to 18
Luck improved 5 points to 45
请按任意键继续. . .
Warrior uses Upper Cut,Henry's HP decreases 20
Warrior obtained 24 experience.
请按任意键继续. . .


C:\WINDOWS\system32\cmd.exe
Player Henry LV. 2 # Opponent Warrior LV. 1
HP 180/220 | MP 110/165 # HP 244/300 | MP 100/100
AP 21 | DP 27 | speed 30 # AP 30 | DP 25 | speed 16
Intelligence 18 | Luck 45 # Intelligence 16 | Luck 15
EXP 144 Job: Archer # EXP 84 Job: Swordsman
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+80): 1
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
1
Henry uses Sharp Shooting,Warrior's HP decreases 13
Henry obtained 15 experience.
请按任意键继续. . .
Warrior uses Shuttle Stab,Henry's HP decreases 82
Warrior obtained 123 experience.
请按任意键继续. . .

C:\WINDOWS\system32\cmd.exe
Player Henry LV. 2 # Opponent Warrior LV. 1
HP 98/220 | MP 110/165 # HP 231/300 | MP 60/100
AP 21 | DP 27 | speed 30 # AP 30 | DP 25 | speed 16
Intelligence 18 | Luck 45 # Intelligence 16 | Luck 15
EXP 159 Job: Archer # EXP 207 Job: Swordsman
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+80): 1
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
Henry uses Cluster Bomb,Warrior's HP decreases 57
Henry obtained 85 experience.
请按任意键继续. . .
Warrior uses Upper Cut,Henry's HP decreases 16
Warrior obtained 19 experience.
请按任意键继续. . .


C:\WINDOWS\system32\cmd.exe
Intelligence 18 | Luck 45 # Intelligence 16 | Luck 15
EXP 244 Job: Archer # EXP 226 Job: Swordsman
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+80): 1
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
Henry uses Cluster Bomb,Warrior's HP decreases 57
Henry obtained 85 experience.
请按任意键继续. . .
Henry Level UP!
HP improved 20 points to 240
MP improved 20 points to 185
AP improved 1 points to 22
DP improved 2 points to 29
Speed improved 5 points to 35
Intelligence improved 2 points to 20
Luck improved 5 points to 50
请按任意键继续. . .
Warrior uses Upper Cut,Henry's HP decreases 18
Warrior obtained 21 experience.
请按任意键继续. . .

C:\WINDOWS\system32\cmd.exe
Player Henry LV. 3 # Opponent Warrior LV. 1
HP 64/240 | MP 40/185 # HP 117/300 | MP 60/100
AP 22 | DP 29 | speed 35 # AP 30 | DP 25 | speed 16
Intelligence 20 | Luck 50 # Intelligence 16 | Luck 15
EXP 329 Job: Archer # EXP 247 Job: Swordsman
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+80): 1
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
Henry's Cluster Bomb has been evaded by Warrior
请按任意键继续. . .
Warrior uses Upper Cut,Henry's HP decreases 16
Warrior obtained 19 experience.
请按任意键继续. . .


C:\WINDOWS\system32\cmd.exe
##
Player   Henry   LV.   3 # Opponent   Warrior   LV.   1
HP 48/240 | MP   5/185   # HP 117/300 | MP 60/100
AP 22 | DP 29 | speed 35 # AP 30 | DP 25 | speed 16
Intelligence 20 | Luck 50 # Intelligence 16 | Luck 15
EXP   329 Job: Archer # EXP   266 Job: Swordsman

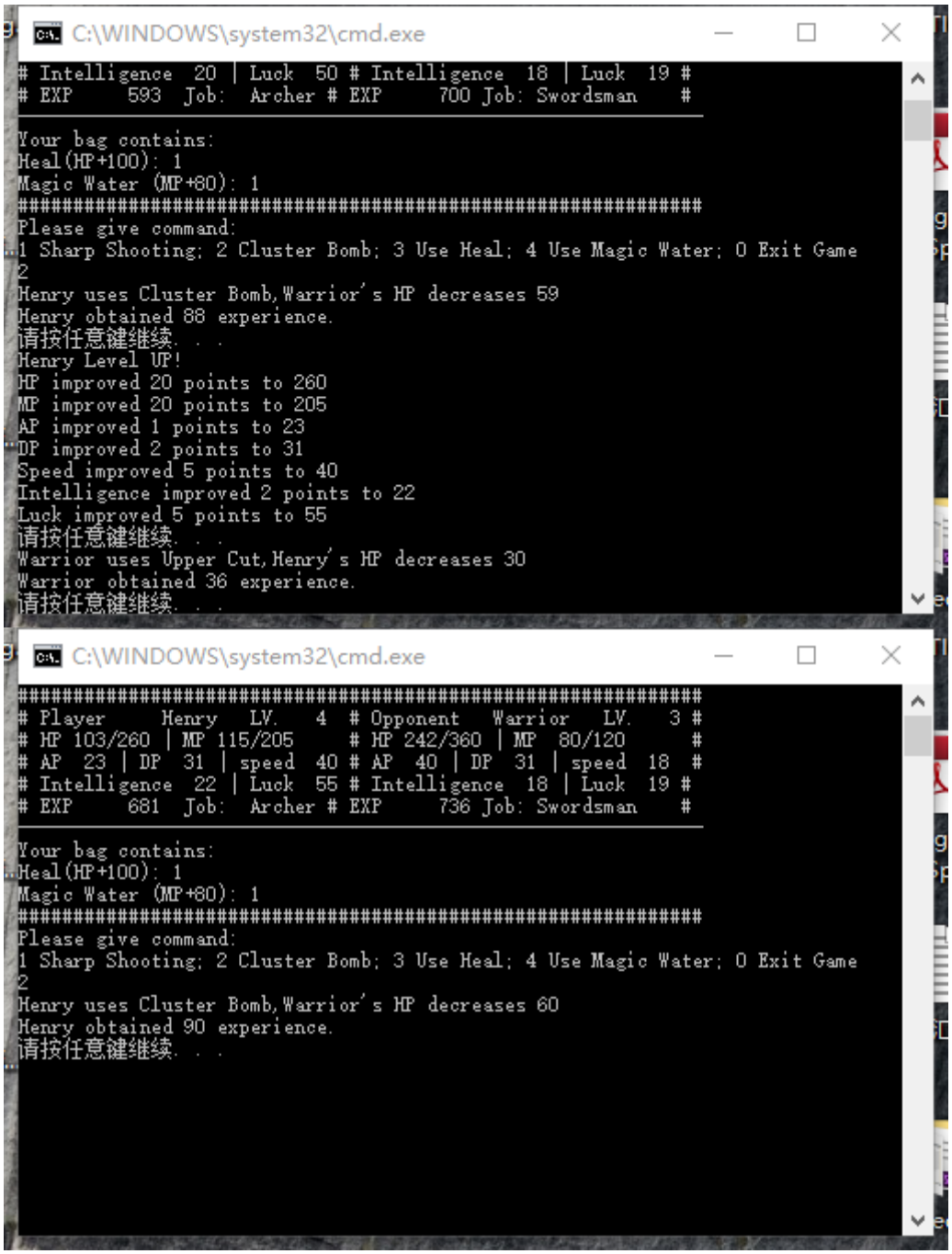
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+80): 1
##
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
3
Henry used Heal, HP increased by 100.
请按任意键继续. . .
Warrior uses Upper Cut,Henry's HP decreases 16
Warrior obtained 19 experience.
请按任意键继续. . .
C:\WINDOWS\system32\cmd.exe
##
Player   Henry   LV.   3 # Opponent   Warrior   LV.   1
HP 132/240 | MP   5/185   # HP 117/300 | MP 60/100
AP 22 | DP 29 | speed 35 # AP 30 | DP 25 | speed 16
Intelligence 20 | Luck 50 # Intelligence 16 | Luck 15
EXP   329 Job: Archer # EXP   285 Job: Swordsman

Your bag contains:
Heal(HP+100): 0
Magic Water (MP+80): 1
##
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
4
Henry used Magic Water, MP increased by 100.
请按任意键继续. . .
Warrior uses Upper Cut,Henry's HP decreases 14
Warrior obtained 16 experience.
请按任意键继续. . .


C:\WINDOWS\system32\cmd.exe
Player Henry LV. 3 # Opponent Warrior LV. 1
HP 118/240 | MP 105/185 # HP 117/300 | MP 60/100
AP 22 | DP 29 | speed 35 # AP 30 | DP 25 | speed 16
Intelligence 20 | Luck 50 # Intelligence 16 | Luck 15
EXP 329 Job: Archer # EXP 301 Job: Swordsman
Your bag contains:
Heal(HP+100): 0
Magic Water (MP+80): 0
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
Henry's Cluster Bomb has been evaded by Warrior
请按任意键继续. . .
Warrior uses Upper Cut,Henry's HP decreases 16
Warrior obtained 19 experience.
请按任意键继续. . .
C:\WINDOWS\system32\cmd.exe
Player Henry LV. 3 # Opponent Warrior LV. 1
HP 102/240 | MP 70/185 # HP 117/300 | MP 60/100
AP 22 | DP 29 | speed 35 # AP 30 | DP 25 | speed 16
Intelligence 20 | Luck 50 # Intelligence 16 | Luck 15
EXP 329 Job: Archer # EXP 320 Job: Swordsman
Your bag contains:
Heal(HP+100): 0
Magic Water (MP+80): 0
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
Henry uses Cluster Bomb,Warrior's HP decreases 59
Henry obtained 88 experience.
请按任意键继续. . .
Warrior uses Upper Cut,Henry's HP decreases 18
Warrior obtained 21 experience.
请按任意键继续. . .


C:\WINDOWS\system32\cmd.exe
##
Player   Henry   LV.   3 # Opponent   Warrior   LV.   1
HP 84/240 | MP 35/185   # HP 58/300 | MP 60/100
AP 22 | DP 29 | speed 35 # AP 30 | DP 25 | speed 16
Intelligence 20 | Luck 50 # Intelligence 16 | Luck 15
EXP   417 Job: Archer # EXP   341 Job: Swordsman
Your bag contains:
Heal(HP+100): 0
Magic Water (MP+80): 0
##
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
Henry uses Cluster Bomb,Warrior's HP decreases 59
Henry obtained 88 experience.
请按任意键继续. . .
Warrior is Dead.
请按任意键继续. . .
YOU WIN
Henry got1 Heal, and 1 Magic Water.
请按任意键继续. . .

C:\WINDOWS\system32\cmd.exe
##
Player   Henry   LV.   3 # Opponent   Warrior   LV.   3
HP 240/240 | MP 185/185   # HP 360/360 | MP 120/120
AP 22 | DP 29 | speed 35 # AP 40 | DP 31 | speed 18
Intelligence 20 | Luck 50 # Intelligence 18 | Luck 19
EXP   505 Job: Archer # EXP   540 Job: Swordsman
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+80): 1
##
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
Henry uses Cluster Bomb,Warrior's HP decreases 59
Henry obtained 88 experience.
请按任意键继续. . .
Warrior uses Shuttle Stab,Henry's HP decreases 107
Warrior obtained 160 experience.
请按任意键继续. . .


C:\WINDOWS\system32\cmd.exe
Intelligence 20 | Luck 50 # Intelligence 18 | Luck 19
EXP 593 Job: Archer # EXP 700 Job: Swordsman
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+80): 1
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
Henry uses Cluster Bomb,Warrior's HP decreases 59
Henry obtained 88 experience.
请按任意键继续. . .
Henry Level UP!
HP improved 20 points to 260
MP improved 20 points to 205
AP improved 1 points to 23
DP improved 2 points to 31
Speed improved 5 points to 40
Intelligence improved 2 points to 22
Luck improved 5 points to 55
请按任意键继续. . .
Warrior uses Upper Cut,Henry's HP decreases 30
Warrior obtained 36 experience.
请按任意键继续. . .

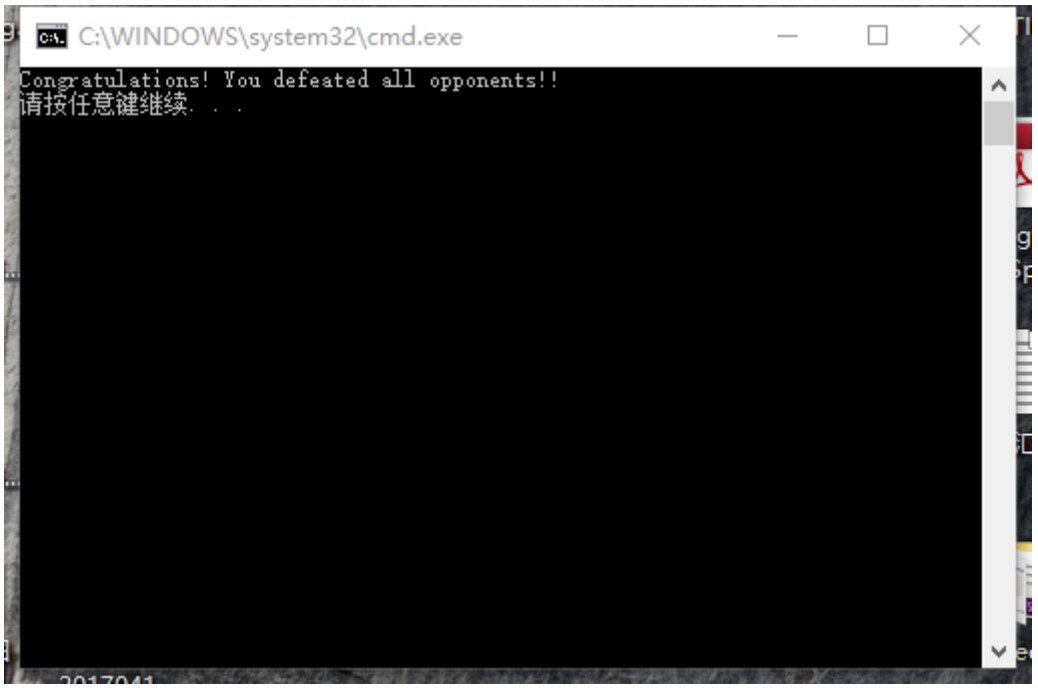
C:\WINDOWS\system32\cmd.exe
Player Henry LV. 4 # Opponent Warrior LV. 3
HP 103/260 | MP 115/205 # HP 242/360 | MP 80/120
AP 23 | DP 31 | speed 40 # AP 40 | DP 31 | speed 18
Intelligence 22 | Luck 55 # Intelligence 18 | Luck 19
EXP 681 Job: Archer # EXP 736 Job: Swordsman
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+80): 1
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
Henry uses Cluster Bomb,Warrior's HP decreases 60
Henry obtained 90 experience.
请按任意键继续. . .


C:\WINDOWS\system32\cmd.exe
##
Player   Henry   LV.   4 # Opponent   Warrior   LV.   3
HP 103/260 | MP 115/205   # HP 242/360 | MP 80/120
AP 23 | DP 31 | speed 40 # AP 40 | DP 31 | speed 18
Intelligence 22 | Luck 55 # Intelligence 18 | Luck 19
EXP   681 Job: Archer # EXP   736 Job: Swordsman
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+80): 1
##
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
Henry uses Cluster Bomb,Warrior's HP decreases 60
Henry obtained 90 experience.
请按任意键继续. . .
Warrior uses Upper Cut,Henry's HP decreases 25
Warrior obtained 30 experience.
请按任意键继续. . .
C:\WINDOWS\system32\cmd.exe
##
Player   Henry   LV.   4 # Opponent   Warrior   LV.   3
HP 78/260 | MP 80/205   # HP 182/360 | MP 80/120
AP 23 | DP 31 | speed 40 # AP 40 | DP 31 | speed 18
Intelligence 22 | Luck 55 # Intelligence 18 | Luck 19
EXP   771 Job: Archer # EXP   766 Job: Swordsman
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+80): 1
##
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
Henry uses Cluster Bomb,Warrior's HP decreases 60
Henry obtained 90 experience.
请按任意键继续. . .
Warrior uses Upper Cut,Henry's HP decreases 27
Warrior obtained 32 experience.
请按任意键继续. . .

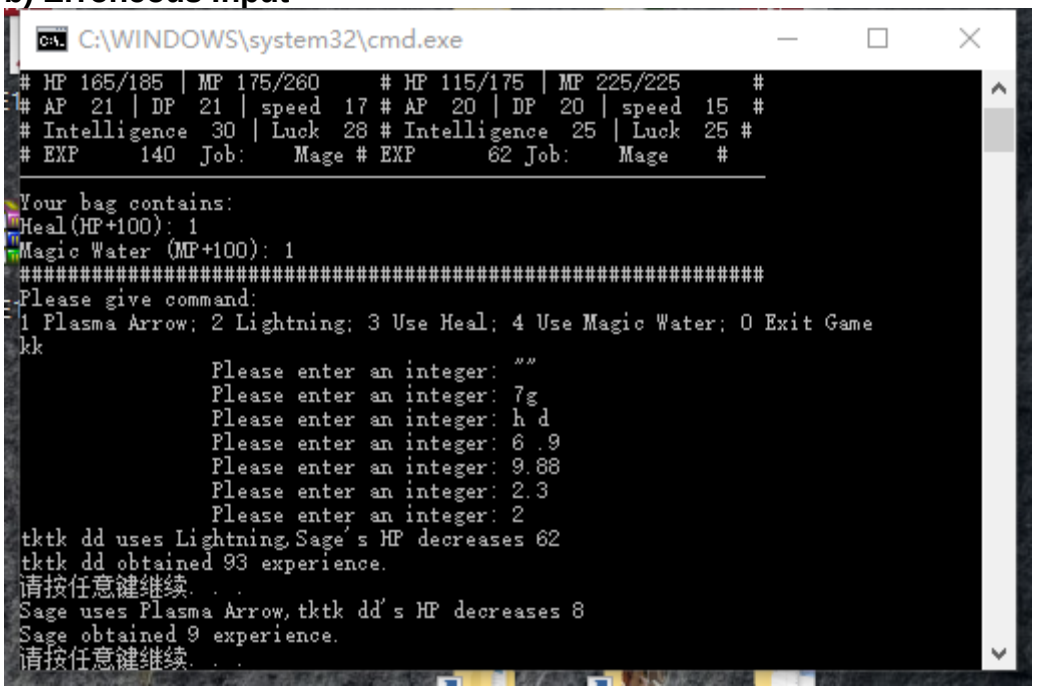

C:\WINDOWS\system32\cmd.exe
Player Henry LV. 4 # Opponent Warrior LV. 3
HP 51/260 | MP 45/205 # HP 122/360 | MP 80/120
AP 23 | DP 31 | speed 40 # AP 40 | DP 31 | speed 18
Intelligence 22 | Luck 55 # Intelligence 18 | Luck 19
EXP 861 Job: Archer # EXP 798 Job: Swordsman
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+80): 1
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
Henry uses Cluster Bomb,Warrior's HP decreases 60
Henry obtained 90 experience.
请按任意键继续. . .
Warrior uses Upper Cut,Henry's HP decreases 25
Warrior obtained 30 experience.
请按任意键继续. . .
C:\WINDOWS\system32\cmd.exe
Player Henry LV. 4 # Opponent Warrior LV. 3
HP 26/260 | MP 10/205 # HP 62/360 | MP 80/120
AP 23 | DP 31 | speed 40 # AP 40 | DP 31 | speed 18
Intelligence 22 | Luck 55 # Intelligence 18 | Luck 19
EXP 951 Job: Archer # EXP 828 Job: Swordsman
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+80): 1
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
You don't have enough magic points!
请按任意键继续. . .

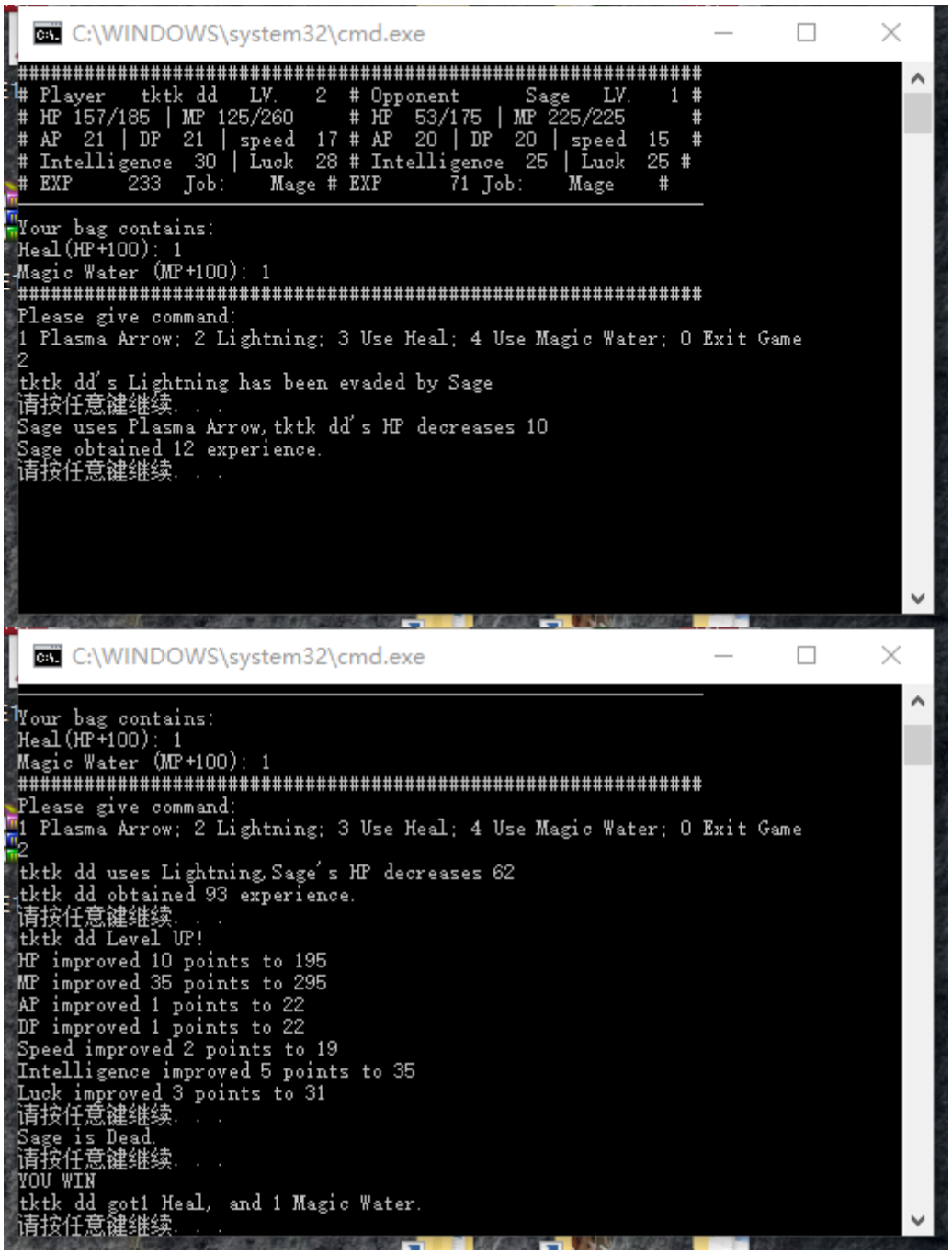

C:\WINDOWS\system32\cmd.exe
##
Player   Henry   LV.   4 # Opponent   Warrior   LV.   3
HP 26/260 | MP 10/205   # HP 62/360 | MP 80/120
AP 23 | DP 31 | speed 40 # AP 40 | DP 31 | speed 18
Intelligence 22 | Luck 55 # Intelligence 18 | Luck 19
EXP   951 Job: Archer # EXP   828 Job: Swordsman
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+80): 1
##
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
3
Henry used Heal, HP increased by 100.
请按任意键继续. . .
Warrior uses Upper Cut,Henry's HP decreases 23
Warrior obtained 27 experience.
请按任意键继续. . .
C:\WINDOWS\system32\cmd.exe
##
Player   Henry   LV.   4 # Opponent   Warrior   LV.   3
HP 103/260 | MP 10/205   # HP 62/360 | MP 80/120
AP 23 | DP 31 | speed 40 # AP 40 | DP 31 | speed 18
Intelligence 22 | Luck 55 # Intelligence 18 | Luck 19
EXP   951 Job: Archer # EXP   855 Job: Swordsman
Your bag contains:
Heal(HP+100): 0
Magic Water (MP+80): 1
##
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
4
Henry used Magic Water, MP increased by 100.
请按任意键继续. . .
Warrior uses Upper Cut,Henry's HP decreases 25
Warrior obtained 30 experience.
请按任意键继续. . .

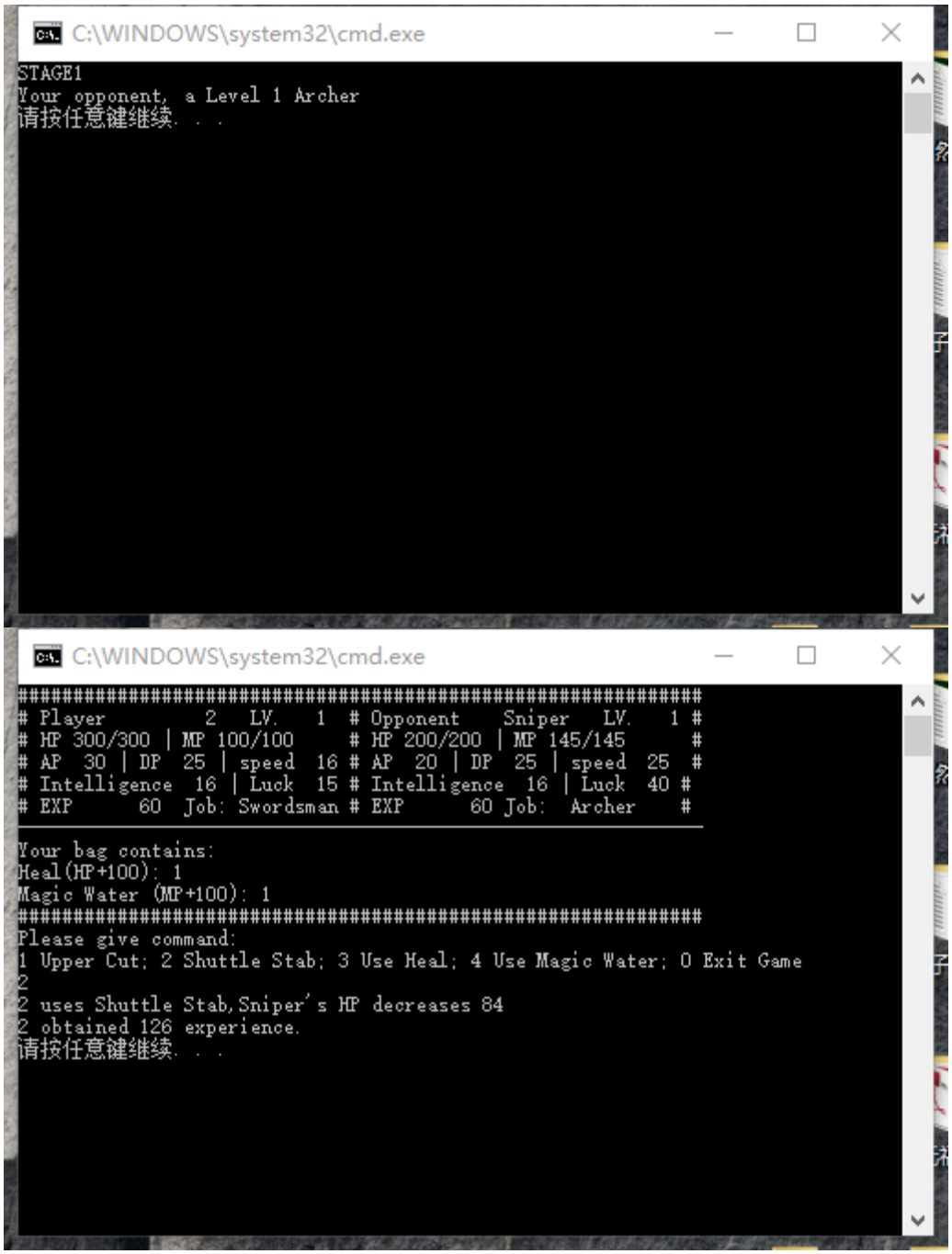

C:\WINDOWS\system32\cmd.exe
##
Player   Henry   LV.   4 # Opponent   Warrior   LV.   3
HP   78/260 | MP 110/205   # HP   62/360 | MP   80/120
AP   23 | DP   31 | speed   40 # AP   40 | DP   31 | speed   18
Intelligence   22 | Luck   55 # Intelligence   18 | Luck   19
EXP   951   Job: Archer # EXP   885 Job: Swordsman
Your bag contains:
Heal(HP+100): 0
Magic Water (MP+80): 0
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
Henry uses Cluster Bomb,Warrior's HP decreases 60
Henry obtained 90 experience.
请按任意键继续. . .
Warrior uses Upper Cut,Henry's HP decreases 25
Warrior obtained 30 experience.
请按任意键继续. . .
C:\WINDOWS\system32\cmd.exe
##
Player   Henry   LV.   4 # Opponent   Warrior   LV.   3
HP   53/260 | MP   75/205   # HP   2/360 | MP   80/120
AP   23 | DP   31 | speed   40 # AP   40 | DP   31 | speed   18
Intelligence   22 | Luck   55 # Intelligence   18 | Luck   19
EXP   1041   Job: Archer # EXP   915 Job: Swordsman
Your bag contains:
Heal(HP+100): 0
Magic Water (MP+80): 0
Please give command:
1 Sharp Shooting; 2 Cluster Bomb; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
1
Critical attack—Arrow Storm!
Henry uses Sharp Shooting,Warrior's HP decreases 62
Henry obtained 74 experience.
请按任意键继续. . .
Warrior is Dead.
请按任意键继续. . .
YOU WIN
Henry got3 Heal, and 3 Magic Water.
请按任意键继续. . .

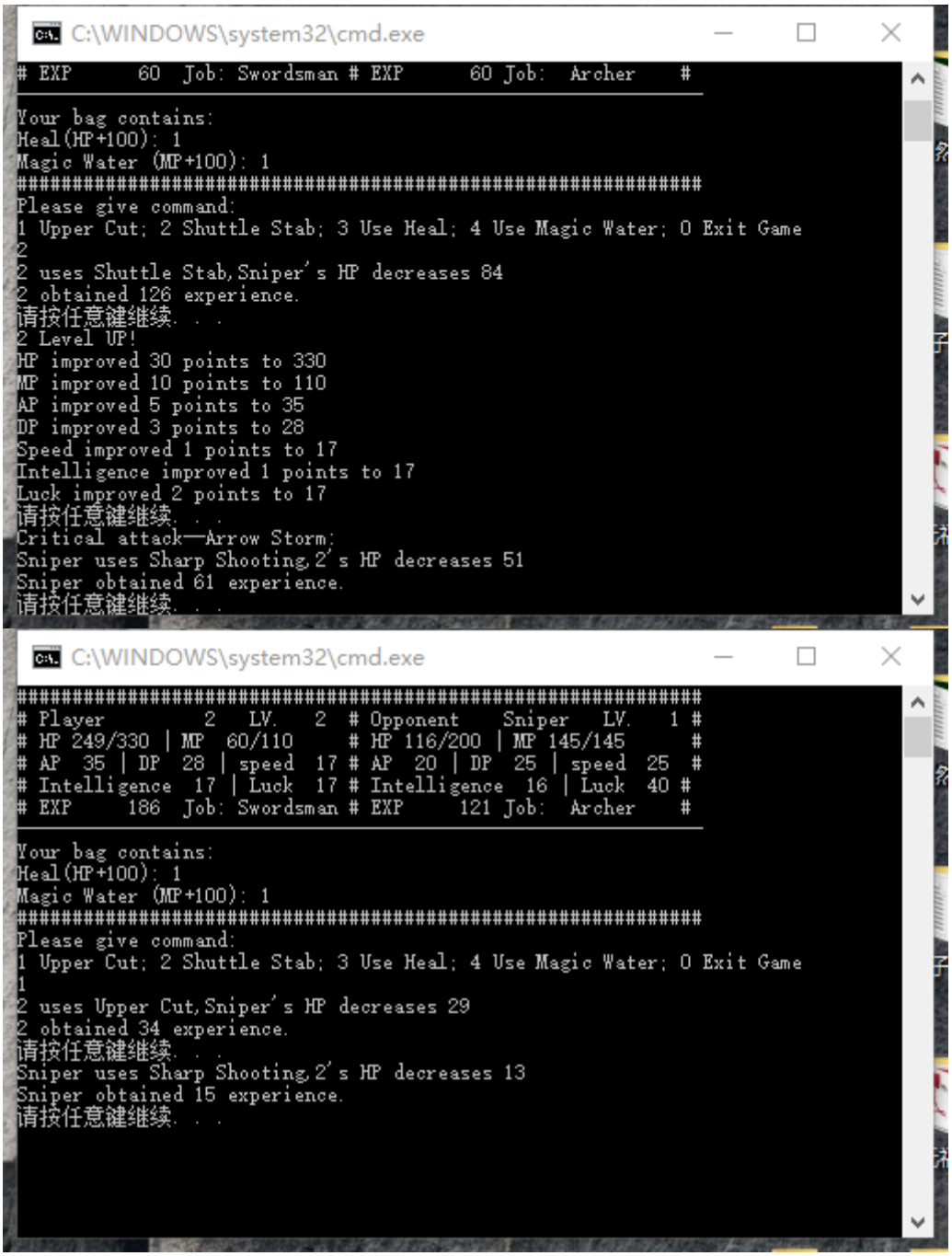


b) Erroneous Input

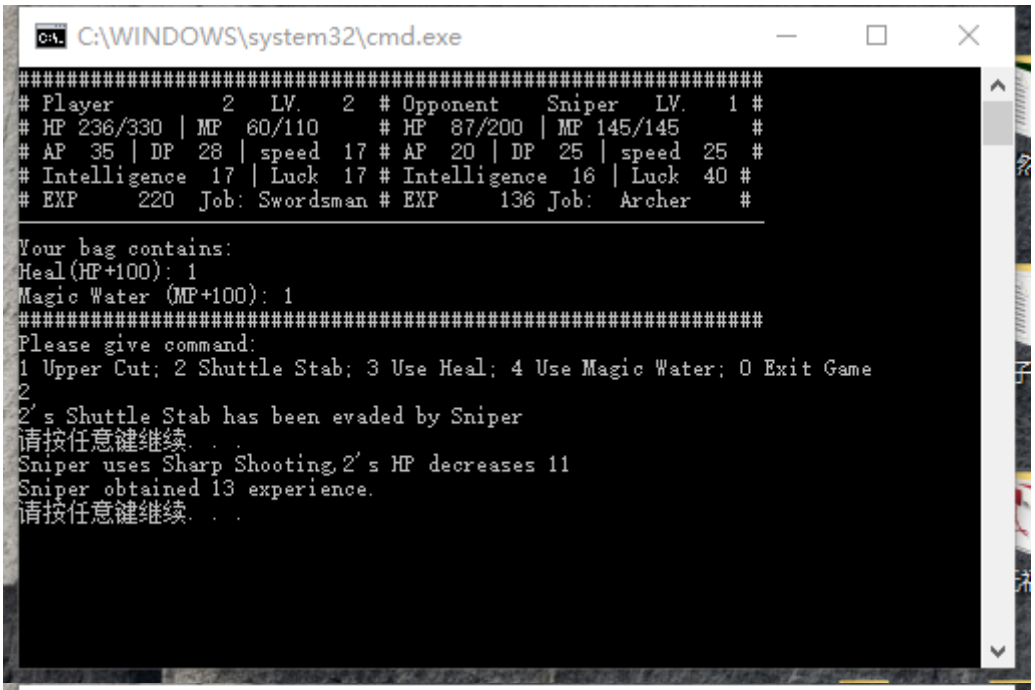


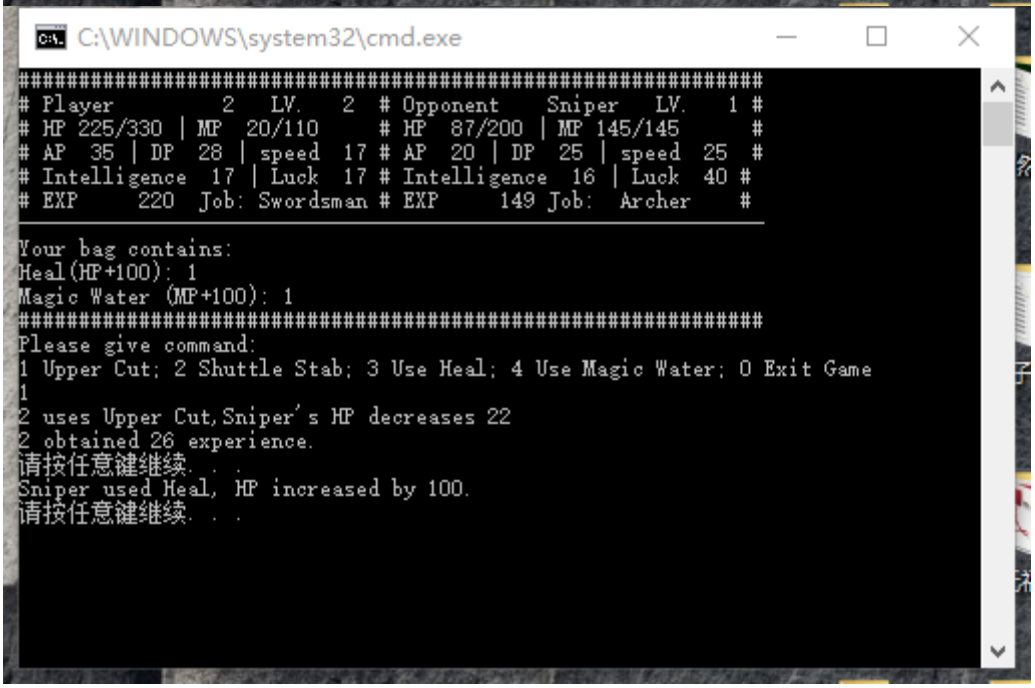

C:\WINDOWS\system32\cmd.exe
##
Player   tktk dd   LV.   2 # Opponent   Sage   LV.   1
HP 157/185 | MP 125/260   # HP 53/175 | MP 225/225
AP 21 | DP 21 | speed 17 # AP 20 | DP 20 | speed 15
Intelligence 30 | Luck 28 # Intelligence 25 | Luck 25
EXP   233 Job: Mage # EXP   71 Job: Mage
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+100): 1
##
Please give command:
1 Plasma Arrow; 2 Lightning; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
tktk dd's Lightning has been evaded by Sage
请按任意键继续. . .
Sage uses Plasma Arrow,tktk dd's HP decreases 10
Sage obtained 12 experience.
请按任意键继续. . .
C:\WINDOWS\system32\cmd.exe
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+100): 1
##
Please give command:
1 Plasma Arrow; 2 Lightning; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
tktk dd uses Lightning,Sage's HP decreases 62
tktk dd obtained 93 experience.
请按任意键继续. . .
tktk dd Level UP!
HP improved 10 points to 195
MP improved 35 points to 295
AP improved 1 points to 22
DP improved 1 points to 22
Speed improved 2 points to 19
Intelligence improved 5 points to 35
Luck improved 3 points to 31
请按任意键继续. . .
Sage is Dead.
请按任意键继续. . .
YOU WIN
tktk dd got1 Heal, and 1 Magic Water.
请按任意键继续. . .

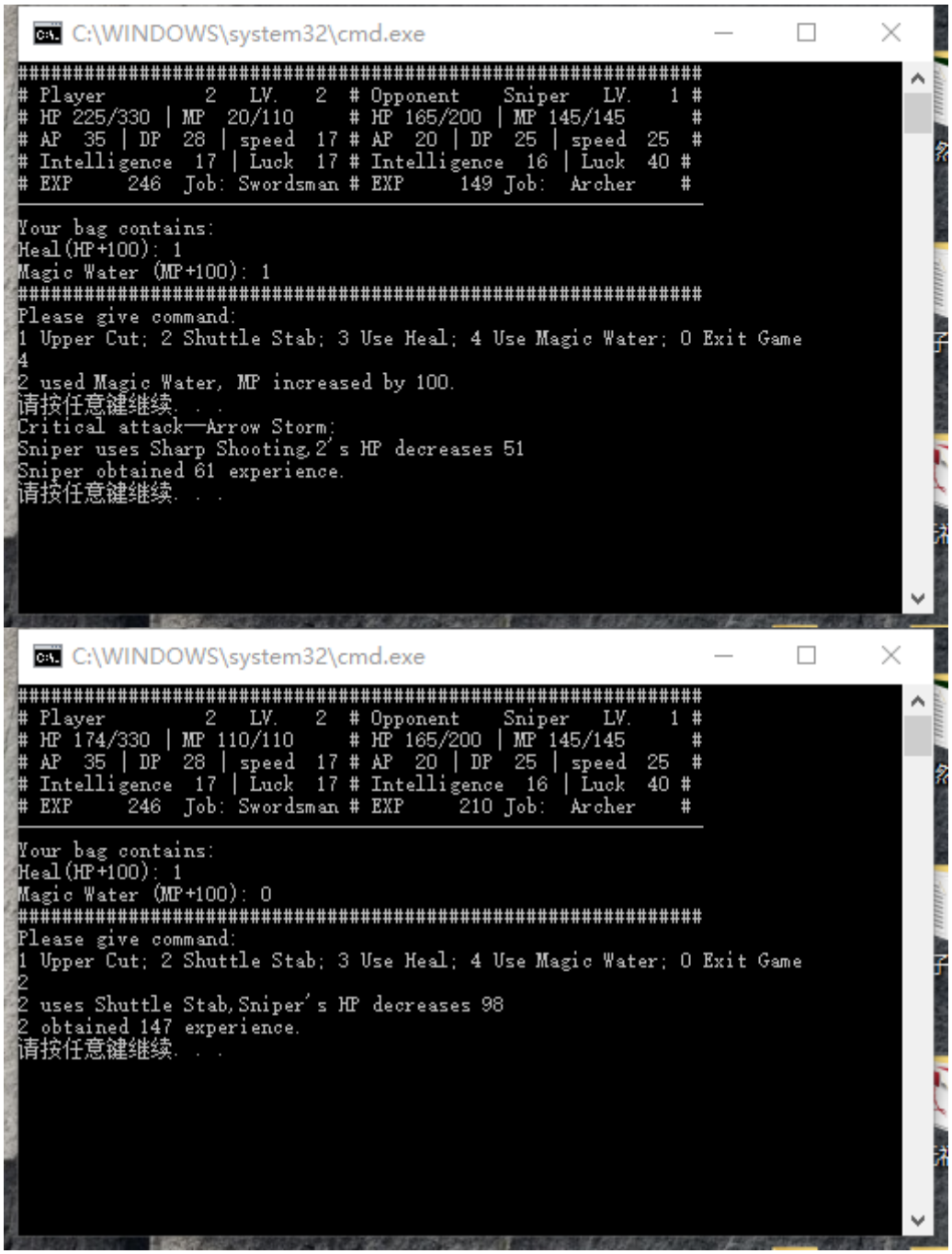

C:\WINDOWS\system32\cmd.exe
STAGE1
Your opponent, a Level 1 Archer
请按任意键继续. . .
C:\WINDOWS\system32\cmd.exe
##
Player   2   LV.   1 # Opponent   Sniper   LV.   1
HP 300/300 | MP 100/100   # HP 200/200 | MP 145/145
AP 30 | DP 25 | speed 16 # AP 20 | DP 25 | speed 25
Intelligence 16 | Luck 15 # Intelligence 16 | Luck 40
EXP   60 Job: Swordsman # EXP   60 Job: Archer
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+100): 1
##
Please give command:
1 Upper Cut; 2 Shuttle Stab; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
2 uses Shuttle Stab,Sniper's HP decreases 84
2 obtained 126 experience.
请按任意键继续. . .

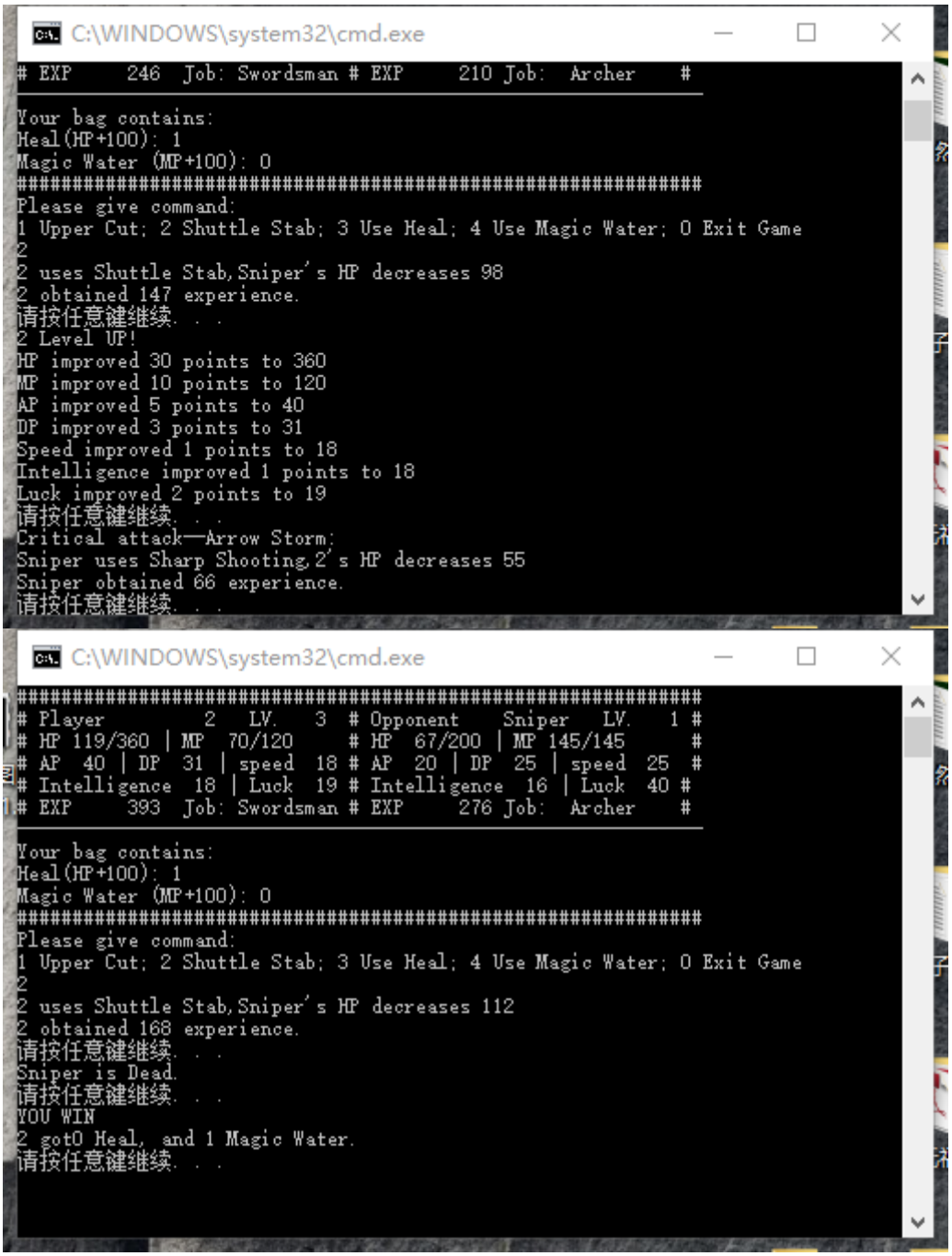

C:\WINDOWS\system32\cmd.exe
EXP 60 Job: Swordsman # EXP 60 Job: Archer
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+100): 1
Please give command:
1 Upper Cut; 2 Shuttle Stab; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
2 uses Shuttle Stab,Sniper's HP decreases 84
2 obtained 126 experience.
请按任意键继续. . .
2 Level UP!
HP improved 30 points to 330
MP improved 10 points to 110
AP improved 5 points to 35
DP improved 3 points to 28
Speed improved 1 points to 17
Intelligence improved 1 points to 17
Luck improved 2 points to 17
请按任意键继续. . .
Critical attack—Arrow Storm;
Sniper uses Sharp Shooting,2's HP decreases 51
Sniper obtained 61 experience.
请按任意键继续. . .

C:\WINDOWS\system32\cmd.exe
Player 2 LV. 2 # Opponent Sniper LV. 1
HP 249/330 | MP 60/110 # HP 116/200 | MP 145/145
AP 35 | DP 28 | speed 17 # AP 20 | DP 25 | speed 25
Intelligence 17 | Luck 17 # Intelligence 16 | Luck 40
EXP 186 Job: Swordsman # EXP 121 Job: Archer
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+100): 1
Please give command:
1 Upper Cut; 2 Shuttle Stab; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
1
2 uses Upper Cut,Sniper's HP decreases 29
2 obtained 34 experience.
请按任意键继续. . .
Sniper uses Sharp Shooting,2's HP decreases 13
Sniper obtained 15 experience.
请按任意键继续. . .

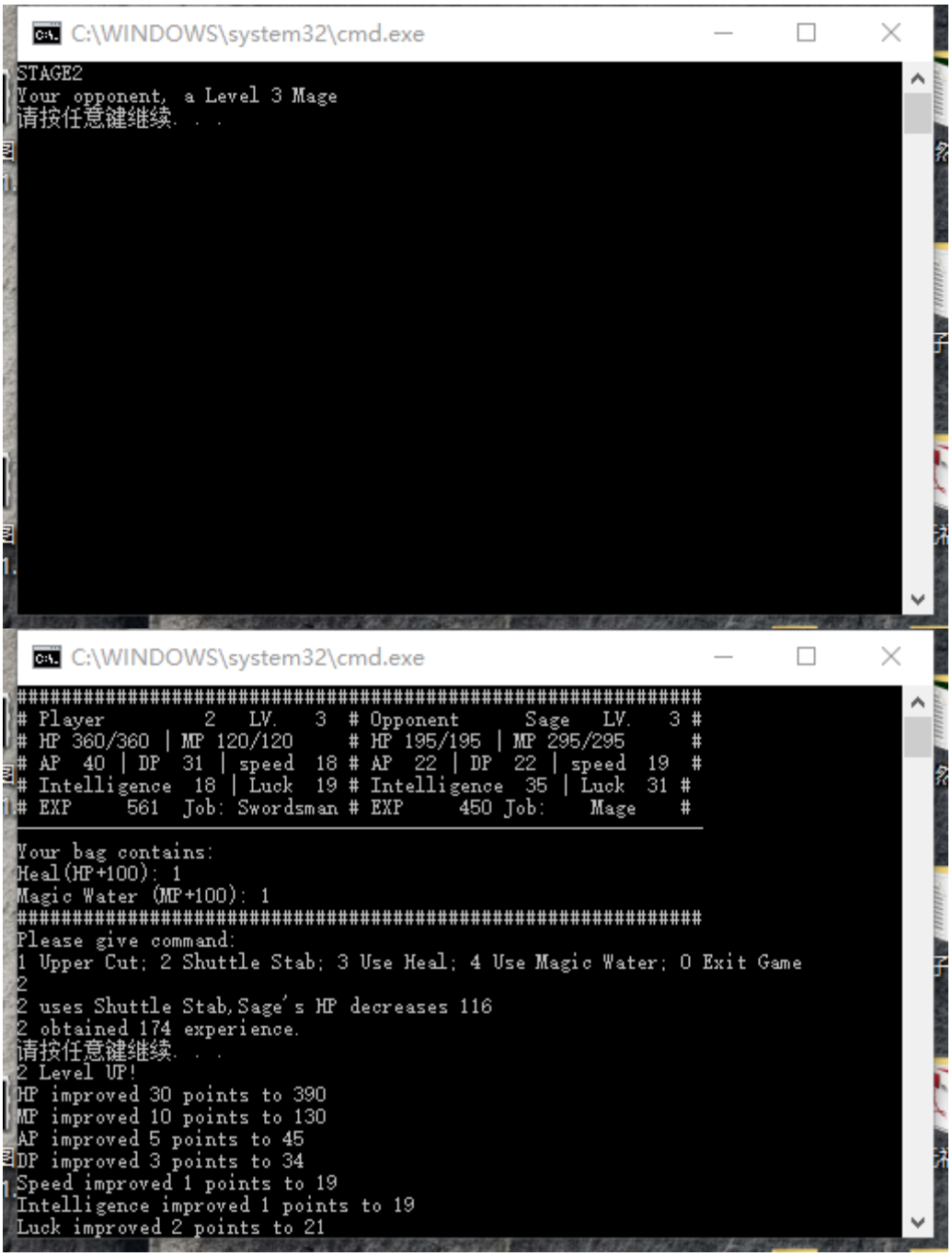

C:\WINDOWS\system32\cmd.exe
Player 2 LV. 2 # Opponent Sniper LV. 1
HP 236/330 | MP 60/110 # HP 87/200 | MP 145/145
AP 35 | DP 28 | speed 17 # AP 20 | DP 25 | speed 25
Intelligence 17 | Luck 17 # Intelligence 16 | Luck 40
EXP 220 Job: Swordsman # EXP 136 Job: Archer
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+100): 1
Please give command:
1 Upper Cut; 2 Shuttle Stab; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
2's Shuttle Stab has been evaded by Sniper
请按任意键继续. . .
Sniper uses Sharp Shooting,2's HP decreases 11
Sniper obtained 13 experience.
请按任意键继续. . .


C:\WINDOWS\system32\cmd.exe
Player 2 LV. 2 # Opponent Sniper LV. 1
HP 225/330 | MP 20/110 # HP 87/200 | MP 145/145
AP 35 | DP 28 | speed 17 # AP 20 | DP 25 | speed 25
Intelligence 17 | Luck 17 # Intelligence 16 | Luck 40
EXP 220 Job: Swordsman # EXP 149 Job: Archer
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+100): 1
Please give command:
1 Upper Cut; 2 Shuttle Stab; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
1
2 uses Upper Cut,Sniper's HP decreases 22
2 obtained 26 experience.
请按任意键继续. . .
Sniper used Heal, HP increased by 100.
请按任意键继续. . .

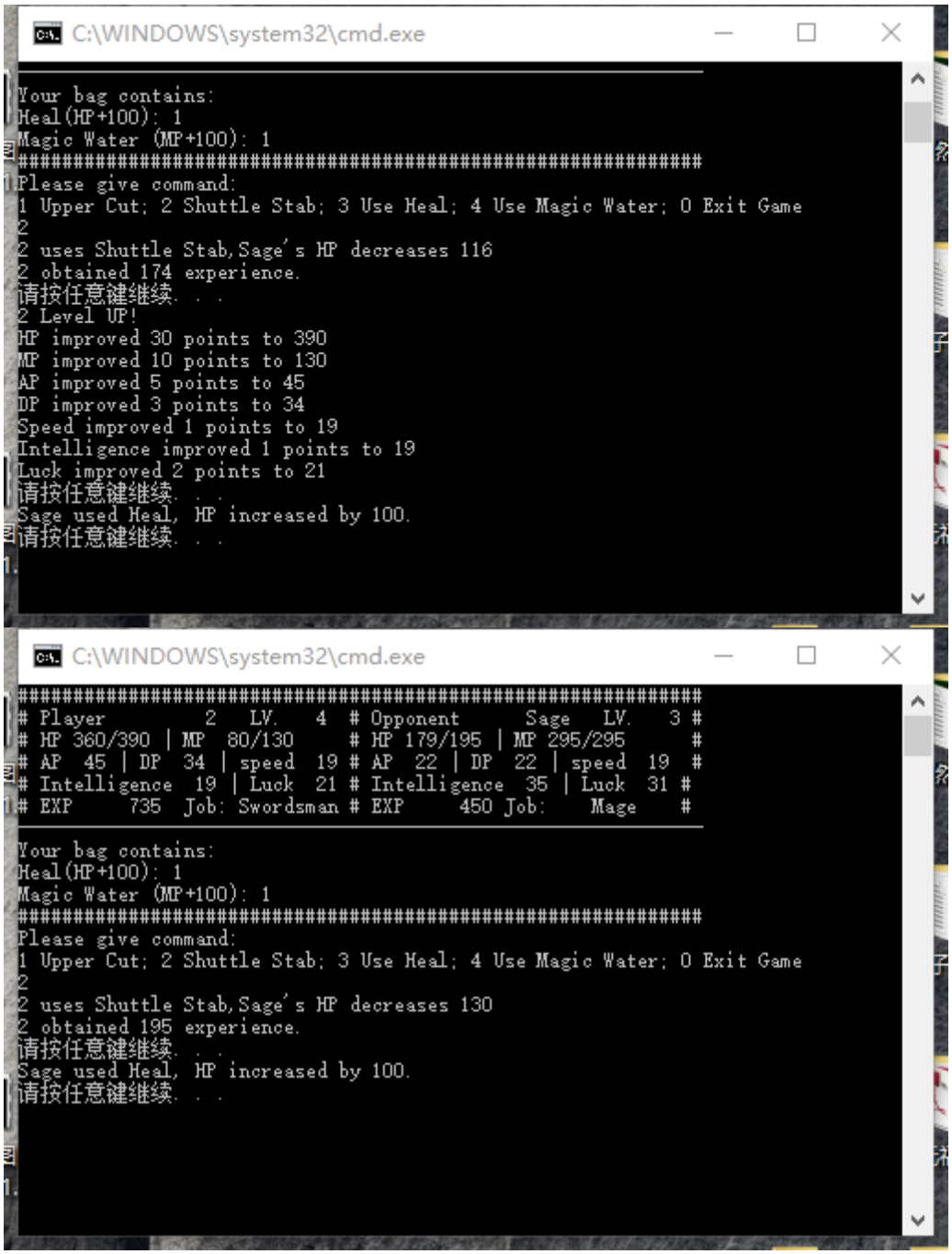

C:\WINDOWS\system32\cmd.exe
Player 2 LV. 2 # Opponent Sniper LV. 1
HP 225/330 | MP 20/110 # HP 165/200 | MP 145/145
AP 35 | DP 28 | speed 17 # AP 20 | DP 25 | speed 25
Intelligence 17 | Luck 17 # Intelligence 16 | Luck 40
EXP 246 Job: Swordsman # EXP 149 Job: Archer
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+100): 1
Please give command:
1 Upper Cut; 2 Shuttle Stab; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
4
2 used Magic Water, MP increased by 100.
请按任意键继续. . .
Critical attack—Arrow Storm:
Sniper uses Sharp Shooting,2's HP decreases 51
Sniper obtained 61 experience.
请按任意键继续. . .
C:\WINDOWS\system32\cmd.exe
Player 2 LV. 2 # Opponent Sniper LV. 1
HP 174/330 | MP 110/110 # HP 165/200 | MP 145/145
AP 35 | DP 28 | speed 17 # AP 20 | DP 25 | speed 25
Intelligence 17 | Luck 17 # Intelligence 16 | Luck 40
EXP 246 Job: Swordsman # EXP 210 Job: Archer
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+100): 0
Please give command:
1 Upper Cut; 2 Shuttle Stab; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
2 uses Shuttle Stab,Sniper's HP decreases 98
2 obtained 147 experience.
请按任意键继续. . .

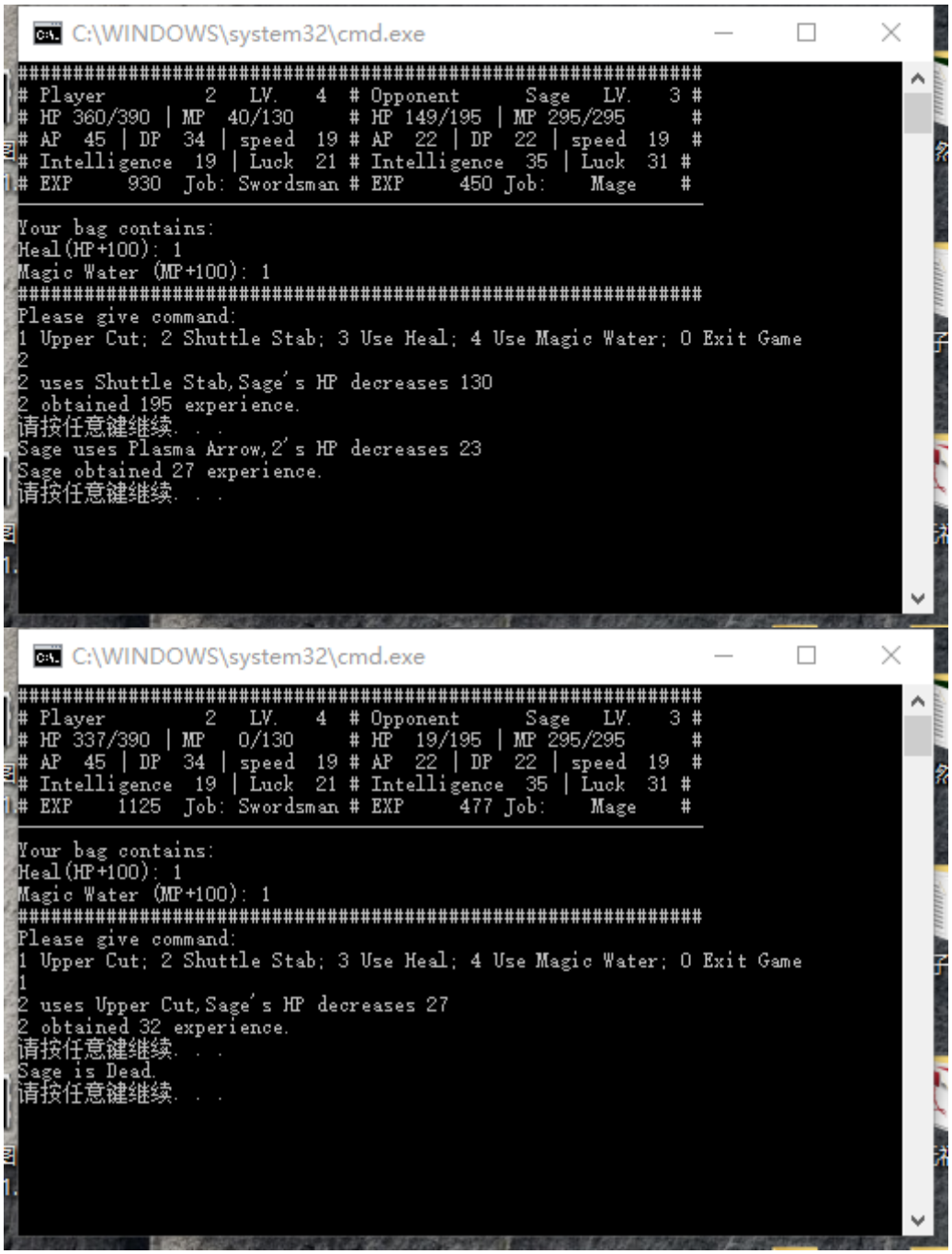

C:\WINDOWS\system32\cmd.exe
EXP 246 Job: Swordsman # EXP 210 Job: Archer
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+100): 0
Please give command:
1 Upper Cut; 2 Shuttle Stab; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
2 uses Shuttle Stab,Sniper's HP decreases 98
2 obtained 147 experience.
请按任意键继续. . .
2 Level UP!
HP improved 30 points to 360
MP improved 10 points to 120
AP improved 5 points to 40
DP improved 3 points to 31
Speed improved 1 points to 18
Intelligence improved 1 points to 18
Luck improved 2 points to 19
请按任意键继续. . .
Critical attack—Arrow Storm;
Sniper uses Sharp Shooting,2's HP decreases 55
Sniper obtained 66 experience.
请按任意键继续. . .

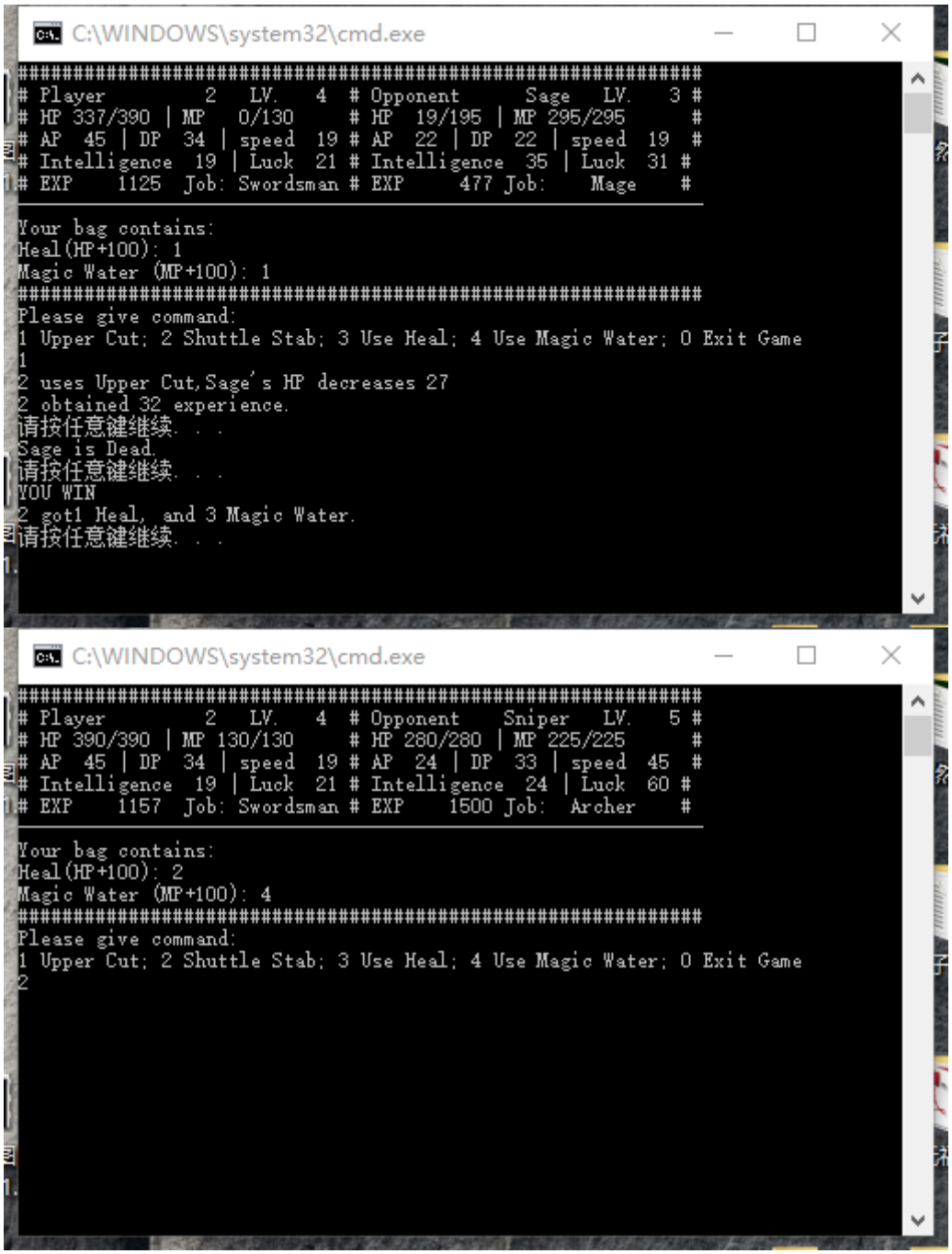
C:\WINDOWS\system32\cmd.exe
Player 2 LV. 3 # Opponent Sniper LV. 1
HP 119/360 | MP 70/120 # HP 67/200 | MP 145/145
AP 40 | DP 31 | speed 18 # AP 20 | DP 25 | speed 25
Intelligence 18 | Luck 19 # Intelligence 16 | Luck 40
EXP 393 Job: Swordsman # EXP 276 Job: Archer
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+100): 0
Please give command:
1 Upper Cut; 2 Shuttle Stab; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
2 uses Shuttle Stab,Sniper's HP decreases 112
2 obtained 168 experience.
请按任意键继续. . .
Sniper is Dead.
请按任意键继续. . .
YOU WIN
2 got0 Heal, and 1 Magic Water.
请按任意键继续. . .


C:\WINDOWS\system32\cmd.exe
STAGE2
Your opponent, a Level 3 Mage
请按任意键继续. . .
C:\WINDOWS\system32\cmd.exe
##
Player   2   LV.   3 # Opponent   Sage   LV.   3
HP 360/360 | MP 120/120   # HP 195/195 | MP 295/295
AP 40 | DP 31 | speed 18 # AP 22 | DP 22 | speed 19
Intelligence 18 | Luck 19 # Intelligence 35 | Luck 31
EXP   561 Job: Swordsman # EXP   450 Job: Mage

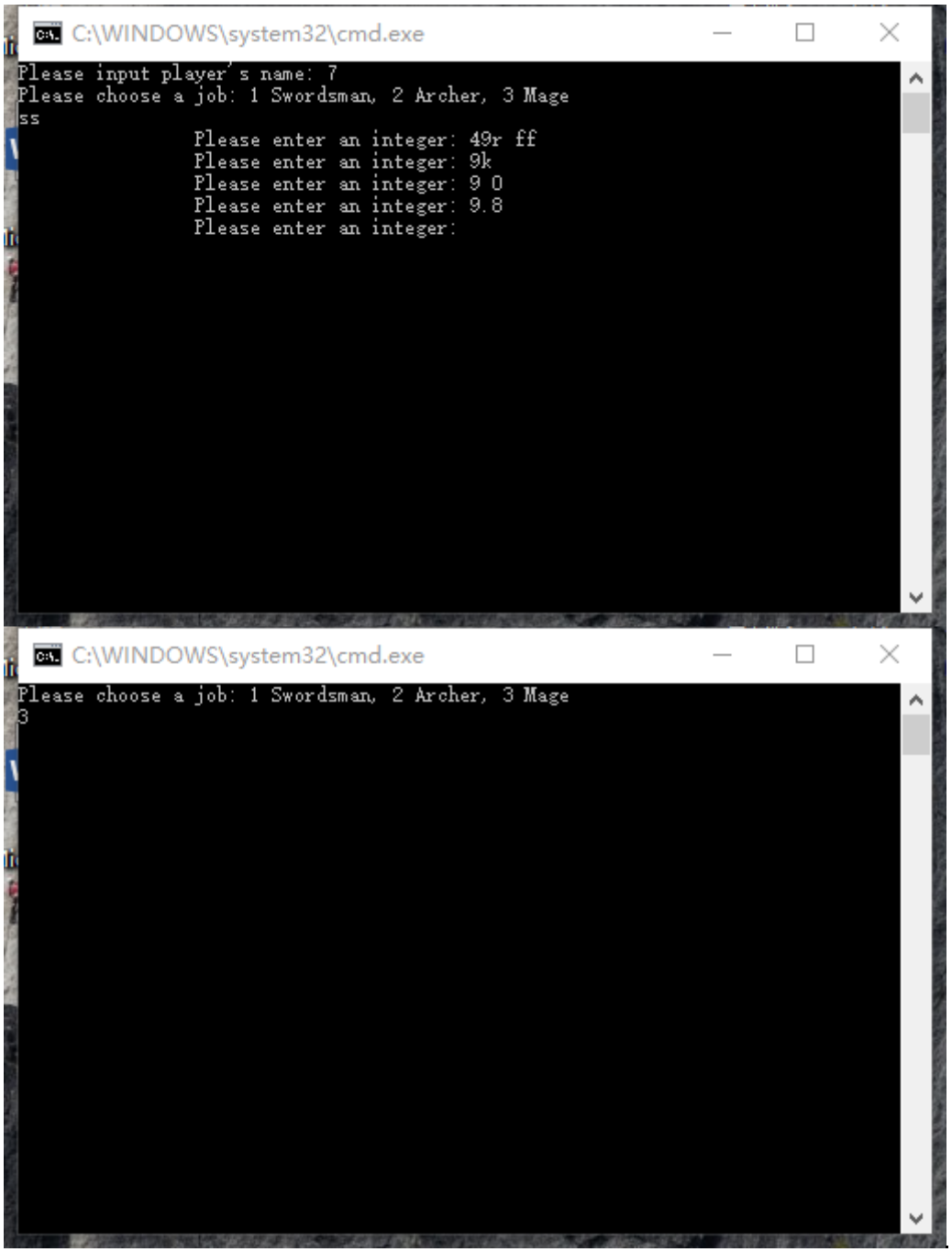
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+100): 1
##
Please give command:
1 Upper Cut; 2 Shuttle Stab; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
2 uses Shuttle Stab,Sage's HP decreases 116
2 obtained 174 experience.
请按任意键继续. . .
2 Level UP!
HP improved 30 points to 390
MP improved 10 points to 130
AP improved 5 points to 45
DP improved 3 points to 34
Speed improved 1 points to 19
Intelligence improved 1 points to 19
Luck improved 2 points to 21

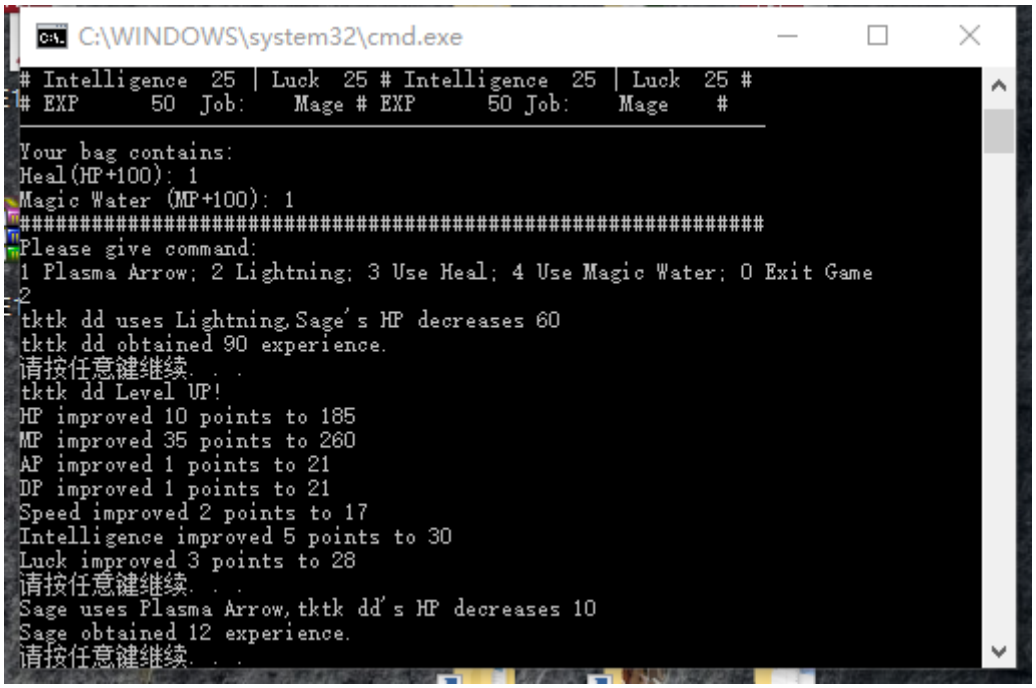

C:\WINDOWS\system32\cmd.exe
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+100): 1
Please give command:
1 Upper Cut; 2 Shuttle Stab; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
2 uses Shuttle Stab,Sage's HP decreases 116
2 obtained 174 experience.
请按任意键继续. . .
2 Level UP!
HP improved 30 points to 390
MP improved 10 points to 130
AP improved 5 points to 45
DP improved 3 points to 34
Speed improved 1 points to 19
Intelligence improved 1 points to 19
Luck improved 2 points to 21
请按任意键继续. . .
Sage used Heal, HP increased by 100.
请按任意键继续. . .
C:\WINDOWS\system32\cmd.exe
Player 2 LV. 4 # Opponent Sage LV. 3
HP 360/390 | MP 80/130 # HP 179/195 | MP 295/295
AP 45 | DP 34 | speed 19 # AP 22 | DP 22 | speed 19
Intelligence 19 | Luck 21 # Intelligence 35 | Luck 31
EXP 735 Job: Swordsman # EXP 450 Job: Mage
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+100): 1
Please give command:
1 Upper Cut; 2 Shuttle Stab; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
2 uses Shuttle Stab,Sage's HP decreases 130
2 obtained 195 experience.
请按任意键继续. . .
Sage used Heal, HP increased by 100.
请按任意键继续. . .


C:\WINDOWS\system32\cmd.exe
Player 2 LV. 4 # Opponent Sage LV. 3
HP 360/390 | MP 40/130 # HP 149/195 | MP 295/295
AP 45 | DP 34 | speed 19 # AP 22 | DP 22 | speed 19
Intelligence 19 | Luck 21 # Intelligence 35 | Luck 31
EXP 930 Job: Swordsman # EXP 450 Job: Mage
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+100): 1
Please give command:
1 Upper Cut; 2 Shuttle Stab; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
2 uses Shuttle Stab,Sage's HP decreases 130
2 obtained 195 experience.
请按任意键继续. . .
Sage uses Plasma Arrow,2's HP decreases 23
Sage obtained 27 experience.
请按任意键继续. . .
C:\WINDOWS\system32\cmd.exe
Player 2 LV. 4 # Opponent Sage LV. 3
HP 337/390 | MP 0/130 # HP 19/195 | MP 295/295
AP 45 | DP 34 | speed 19 # AP 22 | DP 22 | speed 19
Intelligence 19 | Luck 21 # Intelligence 35 | Luck 31
EXP 1125 Job: Swordsman # EXP 477 Job: Mage
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+100): 1
Please give command:
1 Upper Cut; 2 Shuttle Stab; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
1
2 uses Upper Cut,Sage's HP decreases 27
2 obtained 32 experience.
请按任意键继续. . .
Sage is Dead.
请按任意键继续. . .


C:\WINDOWS\system32\cmd.exe
Player 2 LV. 4 # Opponent Sage LV. 3
HP 337/390 | MP 0/130 # HP 19/195 | MP 295/295
AP 45 | DP 34 | speed 19 # AP 22 | DP 22 | speed 19
Intelligence 19 | Luck 21 # Intelligence 35 | Luck 31
EXP 1125 Job: Swordsman # EXP 477 Job: Mage
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+100): 1
Please give command:
1 Upper Cut; 2 Shuttle Stab; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
1
2 uses Upper Cut,Sage's HP decreases 27
2 obtained 32 experience.
请按任意键继续. . .
Sage is Dead.
请按任意键继续. . .
YOU WIN
2 got1 Heal, and 3 Magic Water.
请按任意键继续. . .

C:\WINDOWS\system32\cmd.exe
Player 2 LV. 4 # Opponent Sniper LV. 5
HP 390/390 | MP 130/130 # HP 280/280 | MP 225/225
AP 45 | DP 34 | speed 19 # AP 24 | DP 33 | speed 45
Intelligence 19 | Luck 21 # Intelligence 24 | Luck 60
EXP 1157 Job: Swordsman # EXP 1500 Job: Archer
Your bag contains:
Heal(HP+100): 2
Magic Water (MP+100): 4
Please give command:
1 Upper Cut; 2 Shuttle Stab; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2


C:\WINDOWS\system32\cmd.exe
Please input player's name: 7
Please choose a job: 1 Swordsman, 2 Archer, 3 Mage
ss
Please enter an integer: 49r ff
Please enter an integer: 9k
Please enter an integer: 9 0
Please enter an integer: 9.8
Please enter an integer:
C:\WINDOWS\system32\cmd.exe
Please choose a job: 1 Swordsman, 2 Archer, 3 Mage
3


C:\WINDOWS\system32\cmd.exe
Intelligence 25 | Luck 25 # Intelligence 25 | Luck 25
EXP 50 Job: Mage # EXP 50 Job: Mage
Your bag contains:
Heal(HP+100): 1
Magic Water (MP+100): 1
Please give command:
1 Plasma Arrow; 2 Lightning; 3 Use Heal; 4 Use Magic Water; 0 Exit Game
2
tktk dd uses Lightning,Sage's HP decreases 60
tktk dd obtained 90 experience.
请按任意键继续. . .
tktk dd Level UP!
HP improved 10 points to 185
MP improved 35 points to 260
AP improved 1 points to 21
DP improved 1 points to 21
Speed improved 2 points to 17
Intelligence improved 5 points to 30
Luck improved 3 points to 28
请按任意键继续. . .
Sage uses Plasma Arrow,tktk dd's HP decreases 10
Sage obtained 12 experience.
请按任意键继续. . .