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1．Advantage:

def fun(a, b):

return a+b

result = fun(1, 2)

result = fun(3.3, 4.7)

result = fun(“aaa”, “bbb”)

Only one function need to be written, the function can calculate integer, float, string type and so on.

Disadvantage:

A[0] = 1

A = 2

A[1] = 3

The mistake above cannot be detected by the compiler, only be carried out at runtime, waste of time.

2. In SurvivalGame.java In survival\_game.py

a:

for (Object o : teleportObjects) { for i in range(self.n + self.O):

if (o instanceof Player) { pos = self.teleportObjects[i].getPos()

Pos pos = ((Player) o).getPos(); if pos.getX() == randx and pos.getY() == randy:

if (pos.getX() == randx && pos.getY() == randy) return True

return true;

} else {

Pos pos = ((Obstacle) o).getPos();

if (pos.getX() == randx && pos.getY() == randy)

return true;

}

b:

for (Object obj : teleportObjects) { for i in range(self.n + self.O):

if (obj instanceof Human) self.teleportObjects[i].teleport()

((Human) obj).teleport();

else if (obj instanceof Chark)

((Chark) obj).teleport();

else if (obj instanceof Obstacle)

((Obstacle) obj).teleport();

}

in java code, when object call its function, it need to specify which class it belongs to, but python needn’t, so the python code is more concise than java

3.python:

for i in range(self.n/2):

self.teleportObjects[i] = Human.Human(0,0,i,self)

self.teleportObjects[i+self.n/2] = Chark.Chark(0,0,i,self)

# last one get Wand

self.teleportObjects[(self.n/2) - 1].equipment = Wand.Wand(self.teleportObjects[(self.n/2) - 1])

self.teleportObjects[self.n - 1].equipment = Wand.Wand(self.teleportObjects[self.n - 1])

java:

for (int i = 0; i < (n/2 - 1); i++) {

teleportObjects[i] = new Human(0, 0, i, this, false);

teleportObjects[i + n / 2] = new Chark(0, 0, i, this, false);

}

teleportObjects[n/2 - 1] = new Human(0, 0, n/2 - 1, this, true);

teleportObjects[n-1] = new Chark(0, 0, n/2 - 1, this, true);

in python, I can directly let the last player on each race get the wand

but in java I need to add a parameter to control weather the player will get the wand