



Professional Diploma in Commercial Web Design

Lesson 7b

Object - game

By Raymond Tsang in Fevaworks

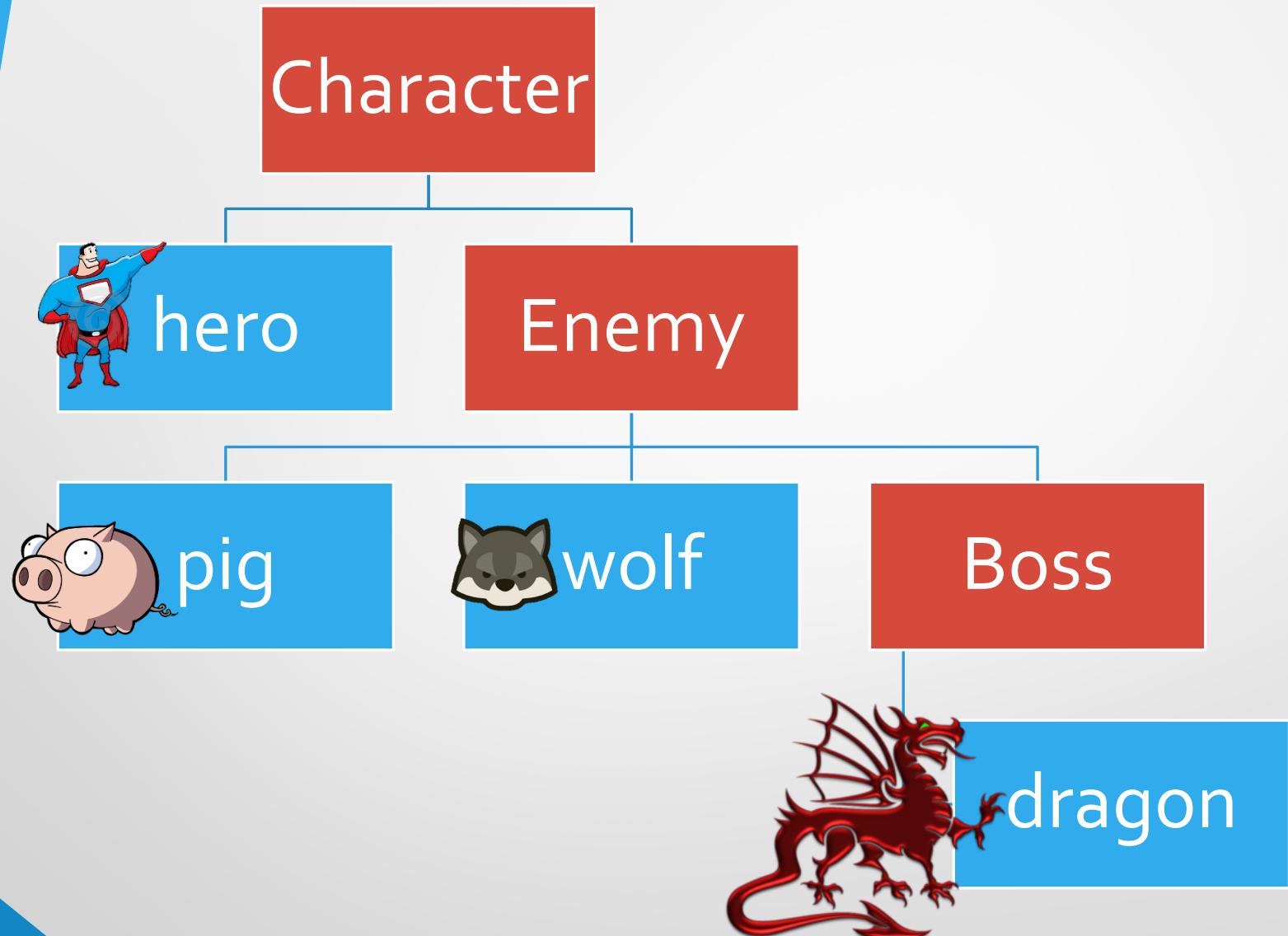
t-raymond.tsang@fevaworks.com

Objective



- Understand object in game example
- Create character and enemy object







The Makings of a Hero (1)

- Lets make a hero character!
- Create a class called “Character” and an object called “\$hero”.(game01.php)
- Every character will have properties such as “name”, “hp” and “atk”. Define them inside class. (game02.php)

The Makings of a Hero (2)

- Use a constructor in class and fill in the name, hp and atk of the hero. (game03.php)
- Display the properties of the hero. (game04.php)



HP:



Character losing health



- If the hero got hit by a monster, he/she will lose health. Create a method “hit” to show this game mechanic.

```
function hit($hit){}
```

- game05.php

If $\text{health}(\text{hero}) = \text{zero}$,

- If the hero's HP is zero, he/she will die and it will be game over. Expand the method "hit".
- game06.php, game07.php



Define Enemies (1)



- Now we create an enemy pig character.
- Since it is a character, it will have properties (name, hp, atk) and methods from the “Character” class. Yet there will also be enemy-exclusive methods. Thus we create a child class named “Enemy”. (game10.php)
- In this case, the child class will contain a method that echoes “Enemy is coming”. (game11.php)

Hero vs. Enemy



- Supposedly, the hero is fighting the enemy pig. The pig is faster and strikes first.
- `$hero->hit($pig->attack);` (game12.php)
- `$pig->hit($hero->attack);` (game13.php)

Fire Attack

- Some enemies may have stronger special attacks. We can include them by creating a method in the child class **“Enemy” only**. Here is the method of fire attack: (game14.php)

```
function fireAttack(){  
    $hit=$this->attack*2;  
    echo "FIRE ATTACK: ".$hit."<br>";  
    return $hit;  
}
```

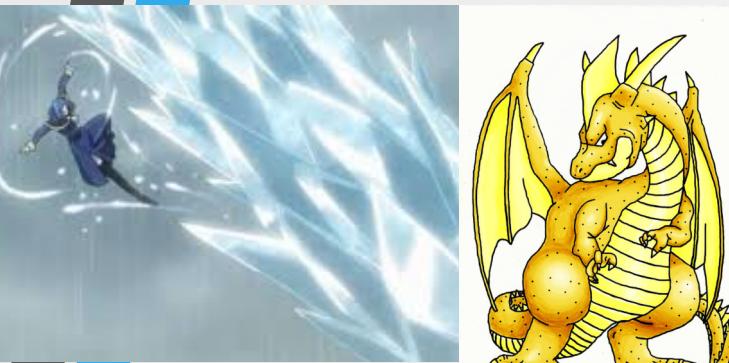


Define Enemies (2)

- Now we are going to make a wolf type enemy. Wolves are defined to be stronger than pigs. They use fire attacks against the character.
- The wolves are similar to pigs other than differences in property values.
- Again, the enemy strikes first.
- game15.php



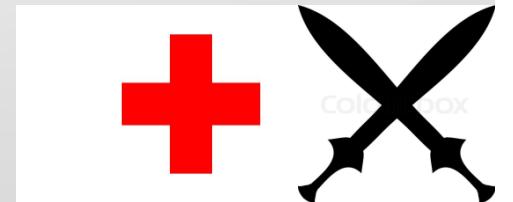
Define Boss



- Now to create the boss of this game – the dragon.
- The boss is a character, and an enemy. Yet only the boss can attack with ice. Hence we create another child class **“Boss”** extending from **“Enemy”**.
- Include a method named **“iceAttack”** in **“Boss”**, which will be similar to the method **“fireAttack”**.
- game16.php, game17.php

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- When hero hp is less than 0, then game over.



QUESTIONS