

```
# 2/23/2020 class notes
```

```
import random
```

```
class Hero:
```

```
    # class variables/attributes
```

```
    side = "light"
```

```
    def __init__(self, hp, strength):
```

```
        # instance variables/attributes
```

```
        self.hp = hp
```

```
        self.strength = strength
```

```
        self.level = 1
```

```
    # instance method
```

```
    def levelup(self, x):
```

```
        self.level = self.level + x
```

```
    # instance method - introduction
```

```
    def intro(self):
```

```
        print(f"My hp is {self.hp} and my strength is {self.strength}")
```

```
    # class method
```

```
    def change_side(cls):
```

```
        if cls.side == "light":
```

```
            cls.side = "dark"
```

```
        else:
```

```
            cls.side = "light"
```

```
heroes = []
```

```
for i in range(20):
```

```
    hp = random.randint(5, 15)
```

```
    strength = random.randint(0, 20)
```

```
    heroes.append(Hero(hp, strength))
```

```
print(heroes)
```

```
for i in heroes:
```

**i.intro()**

```
#hp = random.randint(5, 15)
#strength = random.randint(0, 20)
#x1 = Hero(hp, strength)
#x1.intro()
```

```
#x1 = Hero(10, 10)
#x2 = Hero(15, 5)
```

```
#print(x1.level, x2.level)
#x1.levelup(5)
#print("After Levelup:")
#print(x1.level, x2.level)
```

```
#print(x1.side, x2.side)
#Hero.change_side(Hero)
#print(x1.side, x2.side)
```

```
#print(x1.side)
#print(x2.side)
#Hero.side = "dark"
#print("-----")
#print(x1.side)
#print(x2.side)
#print("-----")
#x1.side = "light"
#print(x1.side)
#print(x2.side)
```