

# Object Oriented Programming with Python

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Session 07

# Content

- Logs
- Physics problem
- Static methods/functions
- Use our Physics lib

# Logs

```
# use logging package
import logging

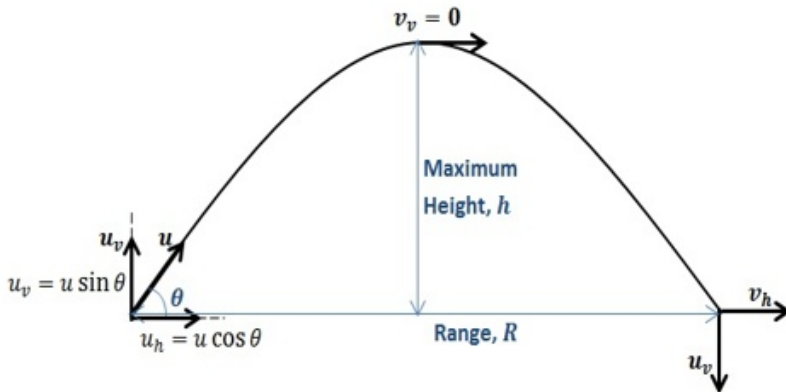
# Configure logging
logging.basicConfig(filename='test.log',
                    level=logging.DEBUG)

# how to use
logging.debug('<Class_name>:<Function_name>: {}'.format(args))
```

# Physics problem

**Let's use all the things that we learn until now**

As a user I would like to have lib that help me to calculate physics problems, in this case parabolic movement.



# Physics formulas

$$V_{ox} = V_o * \cos <\text{angle}>$$

$$V_{oy} = V_o * \sin <\text{angle}>$$

$$D = V_o^2 * \sin 2<\text{angle}>$$

$$T = 2V_o \sin <\text{angle}>$$

$$D = (V_o * \sin 2<\text{angle}>) / g$$

Where:  $V_o$  = initial velocity  $V_{ox}$  = initial velocity in X  $V_{oy}$  = initial velocity in Y  $T$  = run time  $D$  = Distance

# Static Methods/Functions

*# to use static methods you can use the  
# following decorator*

```
@staticmethod  
def my_method():  
    pass
```

# Use the new Physics lib

A goalkeeper shoot the ball out of his goal with velocity 26 m/s and 40 grade. Calculate:

- The max height
- The distance
- The time that the ball would be in the air