



Q&A

Ternary Operator

Three Part Conditional

```
def unlock_door  
  puts "door unlocked"  
end
```

```
def display_error  
  puts "there was an error with your input"  
end
```

```
x > 5 ? unlock_door : display_error
```

Object Oriented Programming (OOP)

Creating a Class

```
class Robot
```

```
...
```

```
end
```

Creating Instances

```
class Robot
```

```
...
```

```
end
```

```
roomba = Robot.new
```

Setting Initial State

```
class Robot
```

```
  def initialize(name)
```

```
    @name = name
```

```
  end
```

```
end
```

```
roomba = Robot.new( 'roomba' )
```


Instance Variables

```
class Robot
```

```
  def initialize(name)
```

```
    @name = name
```

```
  end
```

```
end
```

```
roomba = Robot.new( 'roomba' )
```

Class Variables

```
class Robot

  @@three_laws = [ "don't harm humans",
                  "obey orders", "protect yourself" ]

  def initialize(name)
    @name = name
  end

  def recite_laws
    puts @@three_laws
  end
end
```

Accessors

```
class Robot
  def initialize(name, speed)
    @name = name
    @speed = speed
  end
end
```

```
r = Robot.new('roomba', 10)
puts r.name      # => error
puts r.speed     # => error
```

we can't access name or speed of
the robot from the instance

attr_reader

```
class Robot

  attr_reader :name, :speed

  def initialize(name, speed)
    @name = name
    @speed = speed
  end

end

r = Robot.new('roomba', 10)
puts r.name      # => 'roomba'
puts r.speed     # => 10
```

attr_writer

```
class Robot
  attr_reader :name, :speed
  attr_writer :name
  def initialize(name, speed)
    @name = name
    @speed = speed
  end
end

r = Robot.new('roomba', 10)
r.name = 'roomba II'      # => 'roomba II'
```

attr_accessor

```
class Robot
```

```
  attr_accessor :name, :speed
```

```
  def initialize(name, speed)
```

```
    @name = name
```

```
    @speed = speed
```

```
  end
```

```
end
```

```
r = Robot.new('roomba', 10)
```

```
# we can read and write to speed and name
```

Public Methods

```
class Robot

  def initialize(name, speed)
    @name = name
    @speed = speed
  end

  def move(direction)
    # move the robot
  end

end
```

Private Methods

```
class Robot
  ...

  private
  def self_destruct
    # 3... 2... 1...
  end
end
```


Redefining Methods

```
class Robot

  def initialize(name, speed)
    @name = name
    @speed = speed
  end

  def move(direction)
    # move the robot
  end

end
```

Inheritance

```
class Robot
```

```
  attr_accessor :name, :speed
```

```
  def initialize(name, speed)
```

```
    @name = name
```

```
    @speed = speed
```

```
  end
```

```
  def move(direction)
```

```
    # move the robot
```

```
  end
```

```
end
```

```
class Roomba < Robot
```

```
  def start_vacuum( )
```

```
    # start the vacuum
```

```
  end
```

```
end
```

Tripmeter