

# Learning Ruby - 1

## **Let's Learn Ruby AQAP**

As Quickly As Possible!

# Running Ruby Code

- Run the interactive ruby shell – **irb**
- Run ruby from the command line – **ruby**
- Use the **shebang!** line on GNU/Linux
- Use a *file association* on Windows

# Simple Ruby Number Objects

```
2 + 6
```

```
22 / 4
```

```
22.0 / 4
```

```
3 * 3
```

```
3 ** 3
```

```
big_number = 1_000_000_000
```

# Ruby Number Methods

```
Math.sqrt( 9 )
```

```
Math.methods
```

```
9.methods
```

```
27.class
```

```
3.times { print "Ho! " }
```

```
1.upto( 5 ) { |i| puts i }
```

# Number Conversions

```
one = "1"
```

```
two = "2"
```

```
one + two
```

```
Integer( one ) + Integer( two )
```

```
12.to_s
```

```
print "Happy ", 12.to_s, "th Birthday!"
```

```
puts "Happy ", 12.to_s, "th Birthday!"
```

```
puts "Happy " + 12.to_s + "th Birthday!"
```

# Ruby String Objects

```
a1 = "this is a string\n"  
a2 = 'and so is this\n'
```

```
print a1  
print a2
```

```
answer = 42
```

```
puts "The meaning of life is #{answer}"
```

```
puts "There's #{24*60*60} seconds in a day"
```

# Ruby Here Documents

```
formatted_text = <<END_OF_TEXT
  Let us turn our thoughts today
    To Martin Luther King
  And recognize that there are ties between us
    All men and women
      Living on the Earth
        Ties of hope and love
      Sister and brotherhood
    That we are bound together
      In our desire to see the world become
        A place in which our children
          Can grow free and strong
END_OF_TEXT

print formatted_text
```

# Ruby String Methods

```
formatted_text.methods.sort
```

```
formatted_text.size
```

```
formatted_text.downcase
```

```
formatted_text.upcase
```

```
formatted_text.capitalize!
```

```
formatted_text.reverse
```

```
formatted_text.crypt( "sh" )
```

```
formatted_text.empty?
```



# Working with Ruby Strings

```
song_lines = formatted_text.to_a
```

```
print song_lines[1]  
print song_lines[5]  
print song_lines[99]
```

```
print song_lines  
print formatted_text
```

```
song_lines.class  
formatted_text.class
```

# What About Variable Type?

```
a = 42
puts a
a = "The Ruby Programming Language"
puts a
a = 1.8
puts a
```

# Ruby So Far

- Everything - numbers, strings, data structures, etc. - is an **object**
- Methods are invoked using the dot (".") notation
- Variables are dynamically created as needed
- The traditional notion of a variable's "type" is not something the Ruby programmer concerns themselves with (too much)