



Backend Basics

Introduction to Ruby

First Ruby Program

```
puts "Hello World"
```

Variables

```
name = "Colin"
```

```
blackjack = 21
```

```
change = 2.5
```

Get user input

```
puts "Enter your name"
```

```
name = gets()
```

```
puts name
```

Chomp

```
puts "Enter your name"
```

```
name = gets.chomp
```

```
puts "Hello " + name + "!"
```

```
## Hello Colin!
```

String Concatenation

```
name = "Colin"
```

```
puts "Hello " + name + "!"
```

```
## Hello Colin!
```


Conditional Logic

```
if num < 10
```

```
    puts("That's not a big number!")
```

```
elsif num < 100
```

```
    puts("That's a pretty big number")
```

```
elsif num < 1000
```

```
    puts("Wow that's a large number")
```

```
else
```

```
    puts("That's a ridiculously large number!")
```

```
end
```

Conditional Logic

`5 < 10`

`1 == 1`

`1 <= 10`

`1 != 10`

AND, OR and !

```
puts (123 == 123)
```

```
puts !(123 == 123)
```

```
puts (123 == 123) && ("a" == "b")
```

```
puts (123 == 123) || ("a" == "b")
```

Arrays

```
fruits = ["apple", "banana", "peach"]
```

```
empty_array = []
```

Accessing & Setting Arrays

```
fruits = ["apple", "banana", "peach"]
```

```
fruits[0] # apple
```

```
fruits[0] = "strawberry"
```

Array Push

```
fruits = ["apple", "banana", "peach"]
```

```
fruits.push("strawberry")
```

```
p fruits
```

```
# ["apple", "banana", "peach", "strawberry"]
```

Array Push

```
fruits = ["apple", "banana", "peach"]
```

```
fruits.push "strawberry"
```

```
p fruits
```

```
# ["apple", "banana", "peach", "strawberry"]
```

Array Pop

```
fruits = ["apple", "banana", "peach"]
```

```
lastFruit = fruits.pop
```

```
p fruits
```

```
puts lastFruit
```

```
# ["apple", "banana"]
```

```
# "peach"
```


Array Shift

```
fruits = ["banana", "peach"]
```

```
firstFruit = fruits.shift
```

```
p fruits
```

```
puts firstFruit
```

```
# ["banana", "peach"]
```

```
# "apple"
```

Array Unshift

```
fruits = ["apple", "banana", "peach"]
```

```
fruits.unshift "strawberry"
```

```
p fruits
```

```
# ["strawberry", "apple", "banana", "peach"]
```

While Loops

```
puts("Input a number!")
num = gets.to_i

while num < 100
  puts("That number is too small! Try again!")
  # prompt again, re-assign `num`
  num = gets.to_i
end

puts("You typed " + num.to_s + " which is at
least 100!")
```

While Loops

```
i = 0
while i < 3
    puts i
    i = i + 1
end

puts ("All done!")
```

Writing Methods

```
def ask_for_name  
  puts "What is your name?"  
  name = gets.chomp  
end
```

Returning from a method

```
def ask_for_name  
  puts "What is your name?"  
  name = gets.chomp  
  return name  
end
```

Returning from a method

```
def ask_for_name  
  puts "What is your name?"  
  name = gets.chomp  
  name  
end
```

Method Arguments

```
def convert_to_celsius(temp_f)
    temp_c = (temp_f - 32) * 5 / 9
    return temp_c
end
```

```
converted_temp = convert_to_celsius(50)
```