RUBY ON RAILS
BEGINNERS

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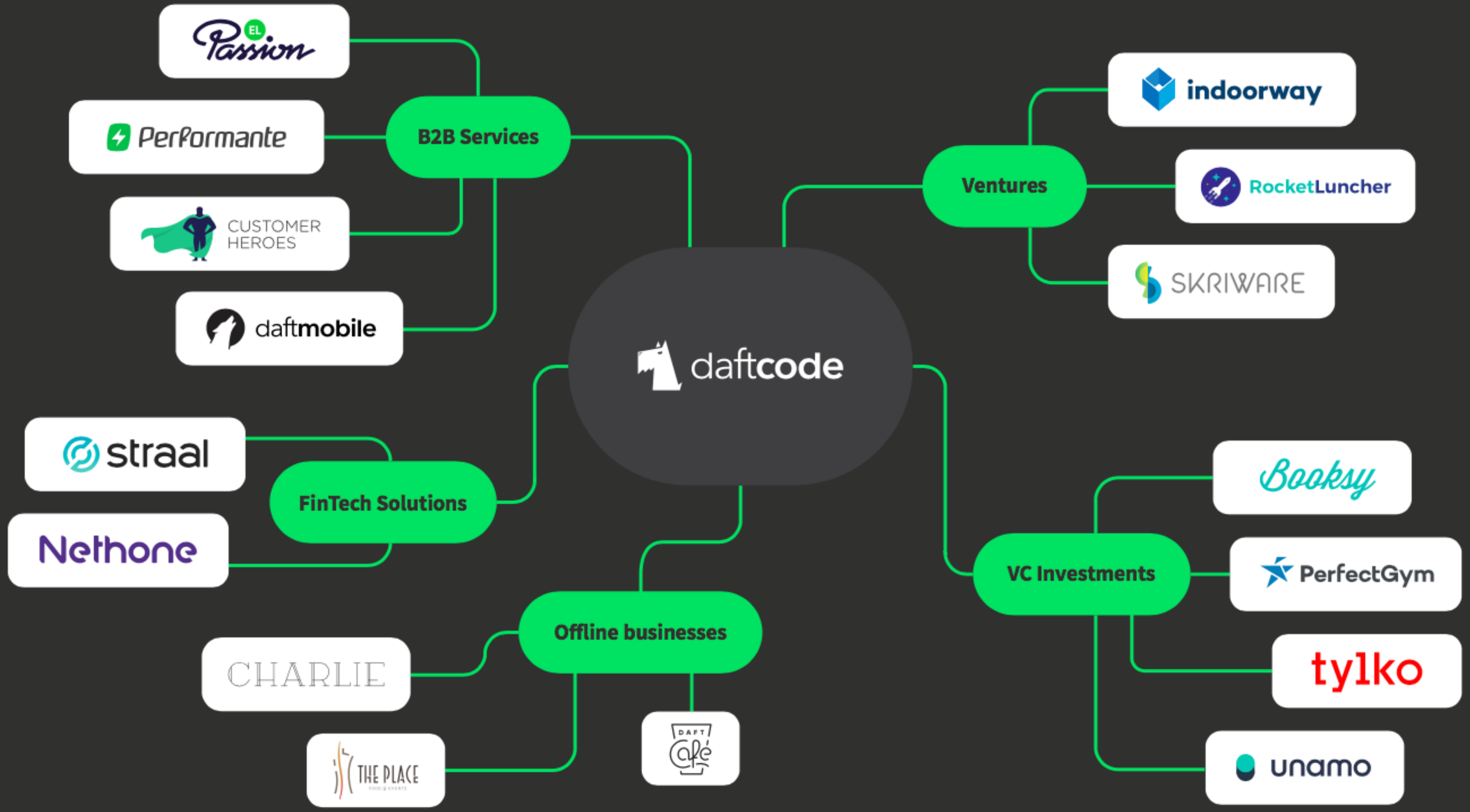
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B2B Services
El Passion
Performante
CUSTOMER HEROES
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Ventures
indoorway
RocketLuncher
SKRIWARE
FinTech Solutions
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Offline businesses
CHARLIE
THE PLACE
DAFT Café

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PLAN ZAJĘĆ

23.10.2017

1. **Witaj w świecie Ruby**

   Charakterystyka języka

30.10.2017

2. **Fundamenty Ruby on Rails**

   Wzorzec MVC i struktura frameworku

6.11.2017

3. **Reprezentacja danych w aplikacji**

   REST w teorii i praktyce

13.11.2017

4. **Zbuduj skracacz linków**

   Od prototypu do aplikacji

20.11.2017

5. **Upewnij się, że działa**

   Testowanie przy pomocy RSpec

27.11.2017

6. **Kontrola dostępu i bezpieczeństwa**

   Konta użytkownika i metody autoryzacji

4.12.2017

7. **Dla chcących więcej**

   Kolejne kroki w Ruby

Ruby

Cechy języka

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Obiektowy

```
3.even?              #=> false
5.78.round           #=> 6
'hello'.capitalize   #=> 'Hello'
[1, 2, 3].min        #=> 1
Time.now.friday?     #=> false
```

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Strukturalny

```
def factorial n
  outcome = 1
  base = 1

  while base <= n
    outcome *= base
    base += 1
  end

  return outcome
end

factorial 5 #=> 120
```

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Refleksyjny

```
my_method() #=> NoMethodError

define_method(:my_method) do
  'Works now!'
end

my_method() #=> 'Works now!'
```

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Typowanie

dynamiczne

```
things = [0, 0.5, 'string']

things[0].class #=> Fixnum
things[1].class #=> Float
things[2].class #=> String

things[2] = []
things[2].class #=> Array
```

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Typowanie

ducktype

```ruby
def get_excited_with thing
  "#{thing.class}s are awesome!"
end

get_excited_with 1.5                #=> Floats are awesome!
get_excited_with 'text'             #=> Strings are awesome!
get_excited_with [:this, 'array'] #=> Arrays are awesome!
```

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Typowanie

silne

```
'string' + 1          #=> TypeError
'string' * 'another'  #=> TypeError
10 - 'string'         #=> TypeError
```

Podstawowe konstrukcje

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Definicja metody

```ruby
def my_method(param1, param2='default value')
  param1 + param2
end

my_method('this is a ')          #=> 'this is a default value'
my_method('this is ', 'custom') #=> 'this is custom'
```

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Nil

```
nil.object_id #=> 8
nil.object_id #=> 8

5.nil?        #=> false

array = [0, 1, 2]
array[3]      #=> nil
```

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Symbol

```
'string'.object_id  #=> ...680
'string'.object_id  #=> ...540
'string' + 's'      #=> 'strings'

:symbol.object_id   #=> 795548
:symbol.object_id   #=> 795548
:symbol + :s        #=> NoMethodError
```

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Zmienne

```
local_variable = 1

@instance_variable = 2

@@class_variable = 3

$global_variable = 4

CONSTANT = 5
```

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Definicja klasy

```ruby
class MyClass < ParentClass

  attr_accessor :email, :age

  @@class_variable = 9

  def initialize email, age
    @email = email
    @age = age
  end

  def instance_method
    "#{email}: #{age}"
  end

  def self.class_method
    @@class_variable
  end
end
```

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Definicja klasy

```
my_object = MyClass.new('me@example.com', 25)
my_object.age                #=> 25
my_object.instance_method    #=> 'me@example.com: 25'
my_object.class_method       #=> NoMethodError

MyClass.instance_method      #=> NoMethodError
MyClass.class_method         #=> 9
```

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Raise/Rescue

```
begin
  do_something
rescue SomeError => e
  error_action
ensure
  always_do_this
end

do_something rescue error_action

raise SomeError
```

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If/Else

```
if condition
  condition_true
else
  condition_false
end

unless condition
  condition_false
else
  condition_true
end

do_something if condition
```

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Case

```ruby
def grade percent
  case percent
  when 100
    5
  when 70...100
    4
  when 50...70
    3
  else
    2
  end
end
```

```ruby
grade 100      #=> 5
grade 66       #=> 3
grade 'error'  #=> 2
```

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Warunkowe przypisania

```
variable = get_value rescue get_other_value

variable = get_value if condition_true

variable = if condition_true
  get_value
else
  get_other_value
end

variable = condition_true ? get_value : get_other_value

variable = get_value || get_other_value

variable ||= get_value
```

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Splat

```ruby
def sentence *args
  args.join(' ').capitalize
end

sentence 'hello', 'world' #=> 'Hello world'

array = ['ala', 'ma', 'kota']

sentence *array           #=> 'Ala ma kota'
```

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Hash

```ruby
hash = {
  'key' => 'value',
  3 => 8.5,
  symbol: :value
}

hash[3]           #=> 8.5
hash[:symbol]     #=> :value
hash['not_here'] #=> nil
```

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Range

```
(1..3).to_a           #=> [1, 2, 3]
(1...3).to_a          #=> [1, 2]

('a'..'e').to_a.join #=> 'abcde'

(0.2..1.6).bsearch { |f| Math.log(f) >= 0 } #=> 1.0
```

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While

```
while condition_true
  do_something
end

until condition_false
  do_something
end

loop do # while true
  do_something
  break if condition_false
end

do_something until condition_false
```

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Blok

```ruby
[1, 2, 3].each do |number|
  number.to_s
end

[1, 2, 3].each { |number| number.to_s }
```

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Wywołanie bloku

```ruby
def message_for number
  if number.is_a? Fixnum
    yield(number) if block_given?
  else
    'NaN'
  end
end

message_for(5) { |n| "#{n} is fine!" }      #=> '5 is fine!'
message_for('asd') { |n| "#{n} is not :(" } #=> 'NaN'
```

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For / foreach

```
10.times { |t| puts "hello #{t}" }

(0..10).each { |t| puts "hello #{t}" }
```

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Each / map

```
array = [1] * 10

array.each { |el| puts "hello #{el}" }

array.each.with_index { |el, i| puts "hello #{i}" }

array.map { |el| el + 1 }

array.map.with_index { |el, i| el + i }
```

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Shorthand bloku

```ruby
some_method do |first_argument, *all_the_rest|
  first_argument.do_something(*all_the_rest)
end

some_method(&:do_something)
```

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Przykład inject

```ruby
[1, 2, 3].inject { |element, sum| sum + element }

[1, 2, 3].inject { |element, sum| element + sum }

[1, 2, 3].inject { |element, sum| element.+(sum) }

[1, 2, 3].inject(&:+)

[1, 2, 3].inject(:+) #=> 6

[1, 2, 3].reduce(:+) #=> 6
```

The Ruby way

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Refactor

```
def factorial n
  outcome = 1
  base = 1

  while base <= n
    outcome *= base
    base += 1
  end

  return outcome
end

factorial 5 #=> 120
```

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Refactor

```
def factorial n
  outcome = 1

  (1..n).each do |base|
    outcome *= base
  end

  return outcome
end

factorial 5 #=> 120
```

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Refactor

```ruby
def factorial n
  outcome = (1..n).inject(1) do |base, acc|
    acc * base
  end

  return outcome
end

factorial 5 #=> 120
```

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Refactor

```ruby
def factorial n
  (1..n).inject(1) do |base, acc|
    acc * base
  end
end

factorial 5 #=> 120
```

daftcode

Refactor

```ruby
def factorial n
  (1..n).inject(1) { |base, acc| base * acc }
end

factorial 5 #=> 120
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daftcode

Refactor

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  (1..n).inject(1, :*)
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daftcode

Refactor

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    outcome *= base
    base += 1
  end

  return outcome
end

factorial 5 #=> 120
```

```ruby
def factorial n
  (1..n).inject(1, :*)
end

factorial 5 #=> 120
```

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Dlaczego RoR?

- kompleksowy
- popularny - dużo rozwiązań
- duże możliwości, niski entry level

Pytania?

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