



RUBY ON RAILS - CALCULATOR

Technical Overview

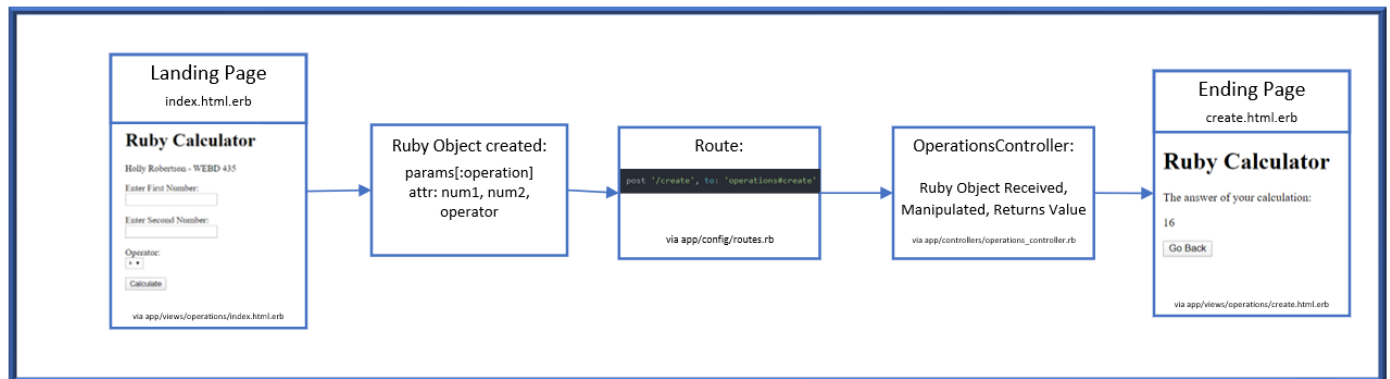
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Technical Overview

Technical Stack:

- Written with Ruby on Rails
- Developed within RubyMine IDE
- Hosted on local environment (localhost:3000)
- Code is available on [GitHub](#)
- Name of application: ruby_calculator
- Written by Holly Robertson for WEBD 435 course at Franklin University

Technical Diagram of Application Flow:



Technical Requirements:

- Must handle at least addition, subtraction, division, and multiplication
 - The physical view of these are held within **index.html.erb** in a **.select** tag

```
14 <%= f.label :operator, "Operator:" %><br>
15 <%= f.select :operator, ['+', '-', '*', '/'], :required => true %>
```

- The calculations done with these operators are done within the **create** method in the **OperationsController** (app/controllers/operations_controller)
 - Both numbers are converted to an **Integer** variable (**num1, num2**)
 - The operator is converted to a **String** variable (**operator**)
 - The value returned from the calculation is stored within a global variable - **@answer**



```
6  def create
7      num1 = params[:operation][:num1].to_i
8      num2 = params[:operation][:num2].to_i
9      operator = params[:operation][:operator].to_s
10
11      @answer = if operator == '+'
12                  num1 + num2
13              elsif operator == '-'
14                  num1 - num2
15              elsif operator == '*'
16                  num1 * num2
17              else
18                  num1 / num2
19              end
20  end
```

- The **@answer** variable is then called in the **create.html.erb** file

```
3  <p>
4      <%= @answer %>
5  </p>
```

- Must provide basic form validation on the numbers entered by end-user
 - The validation is held within **index.html.erb**

```
6  <%= f.label :num1, "Enter First Number:" %><br>
7  <%= f.text_field :num1, :required => true, :pattern => '\d' %>

10 <%= f.label :num2, "Enter Second Number:" %><br>
11 <%= f.text_field :num2, :required => true, :pattern => '\d' %>
```

- The validation is done with the HTML5 requirement and pattern attributes
- The attributes are written in Ruby, and then Rails converts it to HTML5
 - **:required => true**
 - Meaning: This field is required
 - Error: "Please fill out this field" (built within HTML5)



- `:pattern => '\d'`
 - Meaning: The input entered must be a digit
 - Error: “Please match the requested format” (built within HTML5)
- Examples of errors
 - User inputs a non-digit into field:

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Enter First Number:

dd

! Please match the requested format.

Operator:

+ ▼

Calculate

- User does not input anything into field:

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Enter First Number:

! Please fill out this field.

Operator:

+ ▼

Calculate