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Web Apps

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MIDTERM EXAM

1. What is the difference between an HTTP PUT request and a POST request?  
   While using a PUT request, the URI of where the resource will go must be decided by the client. For this reason, PUT requests are usually used to update resources on the server that already have a URI. POST requests take the resource information in the body of the message and send it to the server. These requests are usually used to create resources due to the fact that the URI is resolved by the server and then returned after the operation is preformed.
2. This URL is relative
3. An absolute URL shows the absolute location of a resource from anywhere, like ‘http://mysite.com/images/elephant.jpg’  
   A relative URL gives a location relative to the current location, like ‘../images/bill\_cosby.png’
4. This would generate a POST request.
5. Yes, the query string is ‘request\_type=PUT’
6. A tooltip to give a better explanation of what the link does
7. The web-browser renders the HTML that is returned from the server. The database supplies relevant data to the web application upon request.
8. This will usually contain a message body because 200 OK is the status code for a successful response. The contents of the body depend on which method was used to request the resource. For a GET request, the resource will be returned in the body and for a POST request, the response will contain a description of the result of the action.
9. class Troll

attr\_accessor :ugliness, :smelliness, :strength

def initialize(grunt = 'UNGAH')

@grunt = grunt

end

def speak()

for i in 1..42

puts @grunt

end

end

def reverse()

puts @grunt.reverse

end

def propogate()

Troll.new("eegah")

end

end

1. For this to be true, there must be a method in the Troll class with the name ‘fight’.
2. This method exhibits polymorphism because it is available for every class that is created in Ruby.
3. I would expect to receive a Boolean value.
4. The methods without an exclamation point are safe methods that return a copy of the object with the changes made to it by the method, leaving the original object unchanged. The methods with an exclamation point change the calling object itself.
5. Ruby’s type system is dynamic in that variables are instantiated when they are assigned a value, and there is no explicit type casting. This means that you do not have to explicitly define a variable as an integer or string, and you can later assign objects to variables with types that differ from the current type of the variable.
6. This expression yields an array with each of the words that are separated by white space in the sentence as entries.
7. Yes, those two approaches will print all of the objects in happy\_places, line-by-line.
8. Return statements are not needed in ruby methods unless you would like to stop the execution of the method conditionally at some point. The return of the method is just its last expression. For example,

def give\_me\_a\_word

“hello”

end

will return “hello” to the calling method

1. Before\_save, after\_save, after\_create, before\_create

|  |  |  |
| --- | --- | --- |
| HTTP Method | Controller action | CRUD operation |
| GET | Index | Read |
| GET | New |  |
| POST | Create | Create |
| GET | Edit | Read |
| PUT | Update | Update |
| DELETE | Destroy | Delete |

1. Rails simulates PUT and DELETE requests by using POST requests because they’re much more secure.
2. In the development environment, each page and associated code is regenerated on each request in order to reflect changes that may have been made by the developer. In production, the code is cached so that the response time is better and changes are not made to the source code.
3. A singular word would be used in the naming convention when there is only one of those things on the site. For example, the store controller in our depot application controlled the index of the site and basically ran an index operation on the products in the store.
4. Helpers are small snippets of code that can be used in your views. Helpers should be used to keep the application DRY, in that it reduces the amount of times that you have to repeat that snippet of code.
5. There must be a table in the schema called ‘bees\_flowers’ through which a M:N relationship can be represented.
6. All of these queries are not ok. You could cut down on these queries by using ‘Eager loading’. In the flower controller, you could use the :include symbol when you gather all of the flower records to also gather be and hive information.