

Spring 2013 Midterm Answer Key (answerkey)

Score: 75

4. HTTP can be described as a....

- ☐ a protocol used only by web browsers and servers
 - ☐ a request protocol only
 - ☒ a request-response protocol
 - ☐ a response protocol only
-

5. HTTP requests can contain:

- ☒ a "headers" list of key-value pairs
 - ☒ a body that can contain text data
 - ☒ a resource locator
 - ☐ a "footer" list of key-value pairs
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6. A web-based API....

- ☐ always returns JSON, XML, or HTML
 - ☒ is a way for two programs to talk to each other
 - ☐ can never be used by a web browser directly
 - ☐ bypasses the typical HTTP requirements
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7. Browsers can send HTTP requests....

- ☒ using the GET method
 - ☒ using the POST method
 - ☐ using the PUT method
 - ☐ using the DELETE method
 - ☐ browsers don't actually use any HTTP methods
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8. What will the following command do?

```
rails server
```

- ☒ start a local web server on port 3000
 - ☐ deploy a web server to the internet
 - ☒ display a log of http traffic
 - ☐ create a new rails application
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9. A Rails "route"...

- ☐ connects controllers and views together
 - ☐ can include querystring parameters
 - ☒ connects a url path to a Ruby method in your app
 - ☐ must use lowercase characters only
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10. A Rails controller....

- ☐ can contain no more than seven methods
 - ☒ derives ultimately from ActionController::Base
 - ☒ is responsible for handling HTTP requests
 - ☐ must render a view template
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11. A Rails action...

- ☒ is a Ruby method
 - ☐ can reside inside any class in your app
 - ☐ must have a corresponding view template
 - ☒ is responsible for generating an HTTP response
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12. A Rails action...

- ☐ can access querystring parameters with the qrystring[] hash
 - ☒ can inspect dynamic route segments
 - ☒ can receive form input field values
 - ☐ should usually modify the params[] hash
-

13. The following are valid inputs to the render method in a controller action:

- ☐ render "<h1>Greetings</h1>"
 - ☒ render 'greetings'
 - ☒ render :json => ["hello", "goodbye"]
 - ☒ render
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14. A view template....

- ☐ can access local variables defined in the corresponding action method
 - ☒ can access instance variables defined in the corresponding action method
 - ☐ can access instance variables defined in any method of the same controller
 - ☒ can define its own local variables
 - ☒ can define its own instance variables
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15. A route can be named...

- ☒ by using the :as option in the route definition line
 - ☒ to help DRY up controller and view code
 - ☐ to generate three helper methods
 - ☒ differently from the name of the action
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16. Rails "assets" are....

- ☒ stylesheets
 - ☒ javascript files
 - ☒ images
 - ☐ Ruby code that will never change
 - ☐ static HTML files
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17. form_for is different than form_tag because...

- ☒ it will figure out the form method attribute value automatically
 - ☒ it will figure out the form action attribute value automatically
 - ☐ it can be used for any kind of form you need
 - ☒ it should only be used for model-based forms
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18. Models...

- ☒ **represent real-world things inside our software**
 - ☐ can access the `params[]` hash
 - ☒ **can contain methods that you manually write**
 - ☐ always derive from `ActiveRecord::Base`
 - ☐ can be associated to at most one other model
 - ☐ can render views
 - ☒ **should use the singular noun form, i.e. Car, instead of the plural noun form, i.e. Cars**
 - ☐ cannot be accessed from views
 - ☐ can contain action methods if the route specifies the model class using the `:controller =>` option
 - ☒ **are often database-backed**
 - ☐ allow mass-assignment to all columns by default
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19. RESTful routing...

- ☐ expects the intended action to be in the URL path string
 - ☒ **leverages the HTTP notion of resources**
 - ☐ always requires seven actions
 - ☐ provides automatic security features
 - ☒ **defines conventions for all dynamic segments**
 - ☐ requires that your route names must match your model names
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20. The following are Rails features that intentionally embrace the DRY principle

- ☒ **partials**
 - ☐ rake routes
 - ☒ **layouts**
 - ☐ embedded ruby syntax
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21. Data validations are best implemented by...

- ☐ the controller
- ☒ **the model**
- ☐ the view
- ☐ the command line
- ☐ rails console

22. The one primary responsibility of a view is to...

- ☐ DRY up your code
 - ☐ generate JSON
 - ☒ **apply markup to controller-provided data**
 - ☐ retrieve data from the database
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23. Associations are....

- ☒ **implemented in models**
 - ☐ implemented in controllers
 - ☒ **used by models**
 - ☒ **used by controllers**
 - ☐ used in routes
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24. One-to-Many associations require...

- ☒ **that each model contain a primary key**
 - ☒ **that only one model contain a foreign key**
 - ☐ a belongs_to declaration
 - ☐ a has_many declaration
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25. belongs_to ...

- ☐ generates a foreign key column
 - ☒ **generates an instance method**
 - ☐ is contained in the model without the foreign key
 - ☒ **is contained in the model with the foreign key**
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26. has_many

- ☐ generates a foreign key column
 - ☒ **generates an instance method**
 - ☒ **is contained in the class without the foreign key**
 - ☐ is contained in the class with the foreign key
-

27. Many-to-many associations....

- ☐ always require only two tables
 - ☒ always require at least three tables
 - ☒ requires at least two foreign keys in one model
 - ☐ cannot be achieved in Rails
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28. Validation rules are triggered by calls to

- ☒ .valid?
 - ☐ .where
 - ☒ .save
 - ☐ .find_by_id
 - ☐ .new
 - ☐ .errors
 - ☒ .create
 - ☒ .update_attributes
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29. A Rails migration is best defined as...

- ☐ the schema of the entire database
 - ☐ the schema for one table
 - ☐ SQL instructions for at least one database schema change
 - ☒ a Ruby script that executes instructions for at least one database schema change
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30. Routes defined in routes.rb

- ☐ are evaluated using a best-match algorithm upon receiving an http request
 - ☒ are evaluated top-down for the first possible match upon receiving an http request
 - ☐ are uniquely defined by the URL path
 - ☒ are uniquely defined by the combination of the http method and the URL path
 - ☒ can contain multiple dynamic segments
 - ☐ must use :id as a dynamic segment
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31. The best way to determine the actual set of routes defined in a Rails application is...

- ☒ rake routes

- ☐ viewing the routes.rb file
 - ☐ watching the server log
 - ☐ rake db:migrate
 - ☐ rake about
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32. Controller instances....

- ☐ are held in memory for the life of the application
 - ☐ are held in memory until the action method returns
 - ☒ **are held in memory until an HTTP response has been generated**
 - ☒ **are created by Rails**
 - ☐ are created by the routes file
 - ☐ are created by code you must write yourself
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33. What does the following command do?

```
rails generate migration CreateBooks
```

- ☒ **generates a migration class file**
 - ☐ executes the migration file
 - ☐ generates a Book model class
 - ☐ generates a CreateBooks model class
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34. rails console...

- ☒ **is similar, but different from, irb**
 - ☐ is exactly the same as irb
 - ☐ shows the server log
 - ☐ is a simulator for making http requests
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35. In the following standalone Ruby 1.9/2.0 script...

36. The HTML generated by both form_tag and form_for is preferred over manually writing a <form> tag because...

- ☒ **they adhere to HTML5 standards for element syntax**
- ☒ **they generate an authenticity token inside of a hidden field to provide CSRF protection**

- ☒ they can generate a hidden field to simulate an HTTP method other than GET or POST
 - ☐ they apply built-in CSS styles automatically
 - ☒ they can make your source code easier to read
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37. In order to work, a form requires a minimum of...

- ☒ two actions
 - ☐ one partial
 - ☒ one HTML <form> element
 - ☐ two controllers
 - ☐ one action
 - ☒ two routes
 - ☐ one route
-

38. This code:

```
resources :products
```

- ☐ generates 4 total routes
 - ☒ generates 7 total routes
 - ☒ generates 4 named routes
 - ☒ assumes a controller named "ProductsController"
 - ☐ assumes a controller named "ProductController"
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39. "Mass assignment" can be triggered by the following ActiveRecord::Base methods:
