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Test Name:	MBA: Rails/ActiveRecord
Taken On:	1 Aug 2019 17:17:21 PDT
Time Taken:	19 min 57 sec/ 20 min
Work Experience:	1 years
Invited by:	Jeff
Invited on:	1 Aug 2019 17:14:52 PDT
Tags Score:	<div>Advanced10/20</div> <div>Essential65/75</div> <div>Full Stack9/9</div> <div>MVC9/9</div> <div>ORM10/10</div> <div>Rails95/115</div> <div>Rails ActiveRecord15/20</div> <div>Rails Associations25/25</div> <div>Rails Concerns5/5</div> <div>Rails Controllers35/40</div> <div>Rails Models45/55</div> <div>Rails Routes5/10</div> <div>Rails Validations10/15</div> <div>Rake5/5</div> <div>Ruby5/5</div>

84.5%
109/129

scored in **MBA:**
Rails/ActiveRecord in 19 min
57 sec on 1 Aug 2019 17:17:21
PDT


Recruiter/Team Comments:

No Comments.

	Question Description	Time Taken	Score	Status
Q1	MVC > Sentence Completion	12 sec	9/ 9	✓
Q2	Rails Routes > Multiple Choice	45 sec	5/ 5	✓
Q3	Rails Routes > Multiple Choice	4 min 36 sec	0/ 5	✗
Q4	Rails Controllers > Multiple Choice	1 min 9 sec	5/ 5	✓
Q5	Rails Controllers > Multiple Choice	14 sec	5/ 5	✓
Q6	Rails Associations > Multiple Choice	14 sec	5/ 5	✓

Q7	Rails Models > Multiple Choice	8 sec	5/ 5	✓
Q8	Rails Controllers > Multiple Choice	6 sec	5/ 5	✓
Q9	Rails Associations > Multiple Choice	58 sec	5/ 5	✓
Q10	Rails Associations > Multiple Choice	6 sec	5/ 5	✓
Q11	Rails ORM > Multiple Choice	9 sec	5/ 5	✓
Q12	Fill in the blank with a line of code that will enforce the rule that all users > Multiple Choice	19 sec	5/ 5	✓
Q13	Which of the following model class methods will trigger model validations? (Sele > Multiple Choice	1 min 18 sec	0/ 5	✗
Q14	In an example application, the developer wants to make the application more secu > Multiple Choice	52 sec	5/ 5	✓
Q15	What is the difference between > Multiple Choice	10 sec	5/ 5	✓
Q16	Given the following method inside a controller: > Multiple Choice	35 sec	5/ 5	✓
Q17	Params > Multiple Choice	15 sec	0/ 5	✗
Q18	Redirect vs. Render > Multiple Choice	25 sec	5/ 5	✓
Q19	Flash > Multiple Choice	10 sec	5/ 5	✓
Q20	What is the purpose of Rails concerns? > Multiple Choice	1 min 13 sec	5/ 5	✓
Q21	Cookies > Multiple Choice	13 sec	5/ 5	✓
Q22	The code below should add the authors of the 100 most recent tweets to the recen > Multiple Choice	25 sec	5/ 5	✓
Q23	Given the following example Rails model: > Multiple Choice	1 min 27 sec	0/ 5	✗
Q24	What SQL will be generated based on the following ActiveRecord query? > Multiple Choice	29 sec	5/ 5	✓
Q25	Flash > Multiple Choice		5/ 5	✓

QUESTION 1



Correct Answer

Score 9

MVC > Sentence Completion

Full StackMVC

QUESTION DESCRIPTION

Problem Statement

What does M.V.C. stand for?


Complete String


M. {blank} V. {blank} C. {blank}


INTERNAL NOTES

9

CANDIDATE ANSWER

M. model 

V. view 

C. controller 

No Comments

QUESTION 2



Correct Answer

Score 5

Rails Routes > Multiple Choice

Rails

Rails Routes

Essential

QUESTION DESCRIPTION

```
Rails.application.routes.draw do
  resources :users, only: [:index, :show, :create]
end
```

Given the following setup in `config/routes.rb` in a Ruby on Rails Project, **what routes will be created?**

A.

users	GET	/users{.:format}	users#index
	POST	/users{.:format}	users#create
user	GET	/users/:id{.:format}	users#show

B.

users	GET	/users{.:format}	users#index
	GET	/users{.:format}	users#create
user	GET	/users/:id{.:format}	users#show

C.

users	GET	/users{.:format}	users#index
	POST	/users{.:format}	users#create
new_user	GET	/users/new{.:format}	users#new
edit_user	GET	/users/:id/edit{.:format}	users#edit
user	GET	/users/:id{.:format}	users#show
	PATCH	/users/:id{.:format}	users#update
	PUT	/users/:id{.:format}	users#update
	DELETE	/users/:id{.:format}	users#destroy

D.

new_user	GET	/users/new{.:format}	users#new
edit_user	GET	/users/:id/edit{.:format}	users#edit
	PUT	/users/:id{.:format}	users#update
	DELETE	/users/:id{.:format}	users#destroy

CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)

☒ A.☐ B.☐ C.☐ D.

No Comments

QUESTION 3



Wrong Answer

Score 0

Rails Routes > Multiple Choice

Rails

Rails Routes

Essential

QUESTION DESCRIPTION

Given a Rails app that is running at `http://localhost:3000/`, we want the app to respond to a **GET** request to `http://localhost:3000/tweets/search?query=movies` by calling `TweetsController#search`.

Given the following `config/routes.rb`, fill in the missing line to accomplish this goal.

```
Rails.application.routes.draw do

  # *****
  # Missing code goes here
  # *****

end
```

A.

```
resources :tweets
```

B.

```
resources :tweets, only: [:search]
```

C.

```
get "/tweets/search", to: "tweets#search"
```

D.

```
get '/tweets/search?:params', to: 'tweets#search'
```

CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)

- ☐ A.
- ☐ B.
- ☒ C.
- ☐ D.

No Comments

QUESTION 4



Correct Answer

Score 5

Rails Controllers > Multiple Choice Ruby Rails Controllers

QUESTION DESCRIPTION

Given the following controller, we want the **TweetsController#index** method to render the ``app/views/tweets/index.html.erb`` view.

```
class TweetsController < ApplicationController

  # *****
  # Missing code goes here
  # *****

end
```

Select the correct options to fill in the missing code. (**Multiple Selection**)

A.

```
def index; end
```

B.

```
def index
  render :index
end
```

C.

```
def index
  redirect_to :index
end
```

D.

```
def index
  render 'index.html.erb'
end
```

CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)

- ☒ ☐ A.
- ☒ ☐ B.
- ☐ C.
- ☒ ☐ D.

No Comments

QUESTION 5

Correct Answer

Score 5

Rails Controllers > Multiple Choice

Rails

Rails Controllers

Essential

QUESTION DESCRIPTION

What is wrong with the **UserController#search** method in the following code?

```
class TweetsController < ApplicationController
  def search
    render json: Tweets.where("body LIKE '%#{params[:username]}%")
  end
end
```

CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)

- ☒ ☐ This method leaves the database vulnerable to SQL injection attacks due to the unescaped string interpolation.
- ☐ `params` is not defined.
- ☐ % should be outside of the single quotes.
- ☐ Nothing is wrong with this code.

No Comments

QUESTION 6

Correct Answer

Score 5

Rails Associations > Multiple Choice

Rails

Rails Models

Rails Associations

Essential

QUESTION DESCRIPTION

In a Rails Model, what is the difference between **`has_one`** and **`belongs_to`**?


CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)

- ☐ The difference is purely semantic. They are equivalent.
- ☐ A **`belongs_to`** association needs an equivalent **`has_one`** association to function properly.
- ☒ ☐ **`belongs_to`** can only be used in a model that has a foreign key that references another table, and **`has_one`** is the inverse of that association.
- ☐ **`belongs_to`** can be used in a many-to-many association.

No Comments

QUESTION 7


Correct Answer

Score 5

Rails Models > Multiple Choice

RailsRails ModelsEssential

QUESTION DESCRIPTION

What is the purpose of a Rails Model?

CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)

☐ A Rails Model serves as a template for creating html pages embedded with Ruby.


☐ A Rails Model is a representation of the lifecycle of an HTTP request

☒ A Rails Model is used to create Ruby objects from entries in a database.

☐ A Rails Model is responsible for routing HTTP requests to the correct controllers.

No Comments

QUESTION 8


Correct Answer

Score 5

Rails Controllers > Multiple Choice

RailsRails ControllersEssential

QUESTION DESCRIPTION

What is the purpose of a Rails Controller?

CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)

☐ Creates Ruby objects from entries in the database.


☒ Interfaces with Models and Views to build responses to HTTP requests.

☐ Directly stores and retrieves values in the database.

☐ Is a template for embedding Ruby into HTML.

No Comments

QUESTION 9


Correct Answer

Score 5

Rails Associations > Multiple Choice

RailsRails ModelsRails AssociationsEssential

QUESTION DESCRIPTION

Given the following schemas and models:

```
# == Schema Information
#
# Table name: users
#
#   id                :integer          not null, primary key
#   username          :string           not null
#
class User < ApplicationRecord
  has many :likes
```



```
# *****
# Missing code goes here
# *****
end
```

```
# == Schema Information
#
# Table name: tweets
#
# id :integer not null, primary key
# author_id :integer not null
# body :string not null
#
class Tweet < ApplicationRecord
  has_many :likes
end
```

```
# == Schema Information
#
# Table name: likes
#
# user_id :integer not null, primary key
# tweet_id :integer not null
#
class Like
  belongs_to :tweet
  belongs_to :user
end
```

Which of the following code snippets would allow us to call `User.first.liked_tweets`?

A.

```
has_many :liked_tweets,
  through: :likes,
  source: :tweet
```

B.

```
has_many :liked_tweets,
  through: :tweets_id,
  source: :Tweet
```

C.

```
has_many :liked_tweets,
  through: :tweets
```

D.

```
has_many :liked_tweets,
  through: :tweets,
  source: :like
```

CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)

- ☒ A.
- ☐ B.
- ☐ C.
- ☐ D.

No Comments

QUESTION 10



Correct Answer

Score 5

Rails Associations > Multiple Choice

Rails

Rails Associations

ORM

QUESTION DESCRIPTION

ORM stands for _____.

CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)

- ☐ Object React MongoDB
- ☐ Open Rails Model
- ☒ Object-Relational Mapping
- ☐ Objective Rails Manager

No Comments

QUESTION 11



Correct Answer

Score 5

Rails ORM > Multiple Choice

Rails

Rails Associations

ORM

QUESTION DESCRIPTION

What is the built-in ORM framework for Ruby on Rails?


CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)

- ☐ Action Cable
- ☐ Application Controller
- ☐ PostgreSQL
- ☒ Active Record

No Comments

QUESTION 12

Correct Answer

Score 5

Multiple Choice

Rails

Rails Models

Rails Validations

Essential


QUESTION DESCRIPTION

Fill in the blank with a line of code that will enforce the rule that all users must have a **name**.

```
class User < ApplicationRecord
  # *****
  # Missing code goes here
  # *****
end
```

CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)



☒ validates :name, presence: true


☐ require :name, length: { minimum: 1 }

☐ require :name

☐ validates :name, exists: true

No Comments

QUESTION 13

Wrong Answer

Score 0

Multiple Choice

Rails

Rails Models

Rails Validations


Advanced

QUESTION DESCRIPTION


Which of the following model class methods will trigger model validations? (Select **all** that apply.)

CANDIDATE ANSWER


Options: (Expected answer indicated with a tick)




☒ create




☒ create!




☒ save



☒ save!



☒ update



☒ update!

☐ update_attribute


☐ update_all

☐ increment!

☐ decrement!

No Comments

QUESTION 14


Correct Answer

Score 5

Multiple Choice

Rails

Rails Models

Rails Validations

QUESTION DESCRIPTION

In an example application, the developer wants to make the application more secure by only storing a hash of a user's password rather than the password itself.
The user will still enter a username and password when signing up.
Given a user model that **validates the presence of a password_hash**, how can the developer correctly save a new user account to the database?

CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)

☐

Use a hashing function on the front end to hash the password before it is sent to the model.

☐

Save the user to the database, then retrieve the user and update the password value to be a hashed version of the password.

☒


Use an ActiveRecord callback (:before_validation) to create a hashed version of the password before the user is saved to the database.

☐

Remove the validation for the password_hash.

No Comments

QUESTION 15


Correct Answer

Score 5

Multiple Choice

Rails

Rails Models

Rails ActiveRecord

Essential

QUESTION DESCRIPTION

What is the difference between

User.create(username: "Foo", password: "Bar")

and

User.create!(username: "Foo", password: "Bar")

CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)

☐

`User.create` will not save the record to the database.

☒

`User.create!` will raise an exception if the record is invalid (fails validation).

☐


`User.create!` will return the new User object. `User.create` will not.

☐

`User.create!` will bypass the model-level validations.

No Comments

QUESTION 16



Correct Answer

Score 5

Multiple Choice

Rails

Rails Controllers

QUESTION DESCRIPTION

Given the following method inside a controller:

```
def index
  @foos = Foo.all

  respond_to do |format|
    format.html
    format.json { render json: @foos }
  end
end
```

What is the purpose of **respond_to**?


CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)

- ☐ Ensures that the response rendered will always be JSON, regardless of the Accept header of an HTTP request.
- ☒ Specify a the type of response based on the Accept header of an HTTP request. A request for 'text/plain' will cause Rails to look for 'index.html.erb', and a request for 'application/json' will cause Rails to render a JSON response.
- ☐ Changes an HTTP request with an Accept header of 'text/plain' to a have an Accept header of 'application/json'.
- ☐ Ensures that an error will be displayed if a user requests a `text/plain`, and that JSON will be rendered if a user requests `application/json`.

No Comments

QUESTION 17



Wrong Answer

Score 0

Params > Multiple Choice

Rails

Rails Controllers

Essential

QUESTION DESCRIPTION

Inside a Rails controller, the params method returns a hash. **Where do the values in the params hash come from? (Select all that apply)**

CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)

- ☒ ☐ Wildcard values in the routes
- ☒ ☐ In the body of the HTTP request
- ☒ ☐ In the query string of an HTTP request
- ☐ ☐ In the HTTP request header

No Comments

QUESTION 18

Correct Answer

Score 5

Redirect vs. Render > Multiple Choice

Rails

Rails Controllers

Essential

QUESTION DESCRIPTION**What is the difference between render vs. redirect in Rails?****Examples:**

```
def destroy
  @post = Post.find(params[:id])
  render :show
end
```

VS.

```
def destroy
  @post = Post.find(params[:id])
  redirect_to post_url(@post)
end
```

CANDIDATE ANSWER**Options:** (Expected answer indicated with a tick)

The `redirect_to` method causes a new HTTP request to the URL provided. The `render` method stays on the same HTTP request and renders the HTML template provided.



The `redirect_to` and `render` methods are synonyms. Both create a new HTTP request to the url path given.





The `render` method causes a new HTTP request to the URL provided. The `redirect_to` method stays on the same HTTP request and renders the HTML template provided.



Neither creates a new HTTP request, they both render the HTML template provided.

No Comments

QUESTION 19  Correct Answer	Flash > Multiple Choice <div>Rails Rails Controllers Essential</div>
Score 5	QUESTION DESCRIPTION Which of the following best describes the purpose of the flash object?
	CANDIDATE ANSWER Options: (Expected answer indicated with a tick) <div><input checked="" type="radio"/> Provides a way to pass data from the current request to the next request. <input type="radio"/> Provides a way to store data that can be accessed through the entire browsing session. <input type="radio"/> Provides a way to integrate interactive content (Flash, ActionScript, etc.) into the view layer. <input type="radio"/> Provides a way to prevent CSRF attacks by passing temporary keys.</div> No Comments

QUESTION 20  Correct Answer	Multiple Choice <div>Rails Rails Models Rails Concerns Advanced</div>
Score 5	QUESTION DESCRIPTION What is the purpose of Rails concerns ?
	CANDIDATE ANSWER Options: (Expected answer indicated with a tick) <div><input checked="" type="radio"/> To allow developers to more easily factor out functionality that is shared between different models or between different controllers. <input type="radio"/> To allow developers a way to include the same module in a controller and a model. <input type="radio"/> To create a drop-in replacement of Ruby modules. <input type="radio"/> To create more descriptive errors for controllers and models.</div> No Comments

QUESTION 21

Correct Answer

Score 5

Cookies > Multiple Choice

Rails

Rake

Advanced

QUESTION DESCRIPTION

Which of the following statements about cookies are true? **(Select Multiple)**

- A. stored on the server
- B. uploaded with every HTTP request
- C. safe from attacks
- D. can be used to store information on the client's browser

CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)

- ☐ A
- ☒ B
- ☐ C
- ☒ D
- ☐ All of the Above

No Comments

QUESTION 22



Correct Answer

Score 5

Multiple Choice

Rails

Rails Models

Rails ActiveRecord

Essential

QUESTION DESCRIPTION

The code below should add the authors of the 100 most recent tweets to the *recent_authors* array. A *Tweet* belongs_to an *Author*, and an *Author* has_many *Tweets*.

The below code currently creates an **N+1 query**. How could we rewrite `@tweets` to **avoid** the **N+1 query**?

```
#### Replace This!
@tweets = Tweet.order(published_at: :desc).limit(100)
####

recent_authors = []

@tweets.each.with_index do |tweet, idx|
  order_author = "#{idx}: #{tweet.author.name}"
  recent_authors.push(order_author)
end
```


CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)

- ☒ ☐ `@tweets = Tweet.order(published_at: :desc).includes(:authors).limit(100)`
- ☐ `@tweets = Tweet.order(published_at: :desc).with(:authors).limit(100)`
- ☐ `@tweets = Tweet.order(published_at: :desc).joins(:authors).limit(100)`

No Comments

QUESTION 23

Wrong Answer

Score 0

Multiple Choice

RailsRails ModelsRails ActiveRecordAdvanced

QUESTION DESCRIPTION

Given the following example Rails model:

```
class Tweet < ApplicationRecord
  belongs_to :author, inverse_of: :tweets
end

class Author < ApplicationRecord
  has_many :tweets, inverse_of: :author
end

first_author = Author.first
first_tweet_author = Tweet.first.author
```

In a Rails model, **inverse_of** _____.

CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)

☒ allows Rails to avoid additional database queries because `first_author` and `first_tweet_author` will reference the same object in memory.

☐ is required to have a properly functioning has_many relationship.


☐ raises an exception when two objects are created that reference the same row in the database.

☒ creates a joins table (in this scenario between Authors and Tweets).

☐ prevents changes to `first_author` from affecting the data in `first_tweet_author` by forcing Rails to create two separate objects.

No Comments

QUESTION 24

Correct Answer

Score 5

Multiple Choice

RailsRails ActiveRecordRails AssociationsRails ModelsEssential

QUESTION DESCRIPTION

What SQL will be generated based on the following ActiveRecord query?

```
Author.joins(:tweets, :comments).order(id: :asc).limit(10)
```

A.

```
SELECT "authors".*
FROM "authors"
ORDER BY id ASC
LIMIT 10
SELECT "tweets".*
FROM "tweets"
```

```
WHERE ("tweets"."author_id" IN (1,2,3,4,5,6,7,8,9,10))
SELECT "comments".*
FROM "comments"
WHERE ("comments"."author_id" IN (1,2,3,4,5,6,7,8,9,10))
```

B.

```
SELECT "authors".*
FROM "authors"
INNER JOIN "tweets"
ON "tweets"."author_id" = "authors"."id"
INNER JOIN "comments"
ON "comments"."author_id" = "authors"."id"
ORDER BY id ASC
LIMIT 10
```

C.

```
SELECT "tweets".*
FROM "tweets"
INNER JOIN "authors"
ON "authors"."tweets_id" = "tweets"."id"
SELECT "comments"
FROM "comments"
INNER JOIN "authors"
ON "comments.author_id" = "authors"."id"
ORDER BY id ASC
LIMIT 10
```

D.

Exception raised


CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)

- ☐ A.
- ☒ B.
- ☐ C.
- ☐ D.

No Comments

QUESTION 25



Correct Answer

Score 5

Flash > Multiple Choice


RailsRails ControllersEssential

QUESTION DESCRIPTION

Data in the flash object will persist for how long?

CANDIDATE ANSWER

Options: (Expected answer indicated with a tick)

☒

☐ The length of the current browsing session.

☐ Until the user clears their browsing cache.

☐ One request cycle.

☐ A predetermined amount of time, designated by the developer.

No Comments