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Classes

The basis of User interaction revolves around three main classes: forum, post and reply (all of which inherit from the ApplicationRecord).

forum – Each instance of a forum has an id and a forum_subject. Forum access is mediated by the forums_controller.

post – Each instance has a content and a title and is linked to a forum. Post access is mediated by the posts_controller.

reply – Each instance has a content and is linked to an associated post. Reply access is mediated by the replies_controller.

Controllers

Access to the above classes is moderated by three controllers: forums_controller, post_controller and replies_controller (all of which inherit from the ApplicationController).

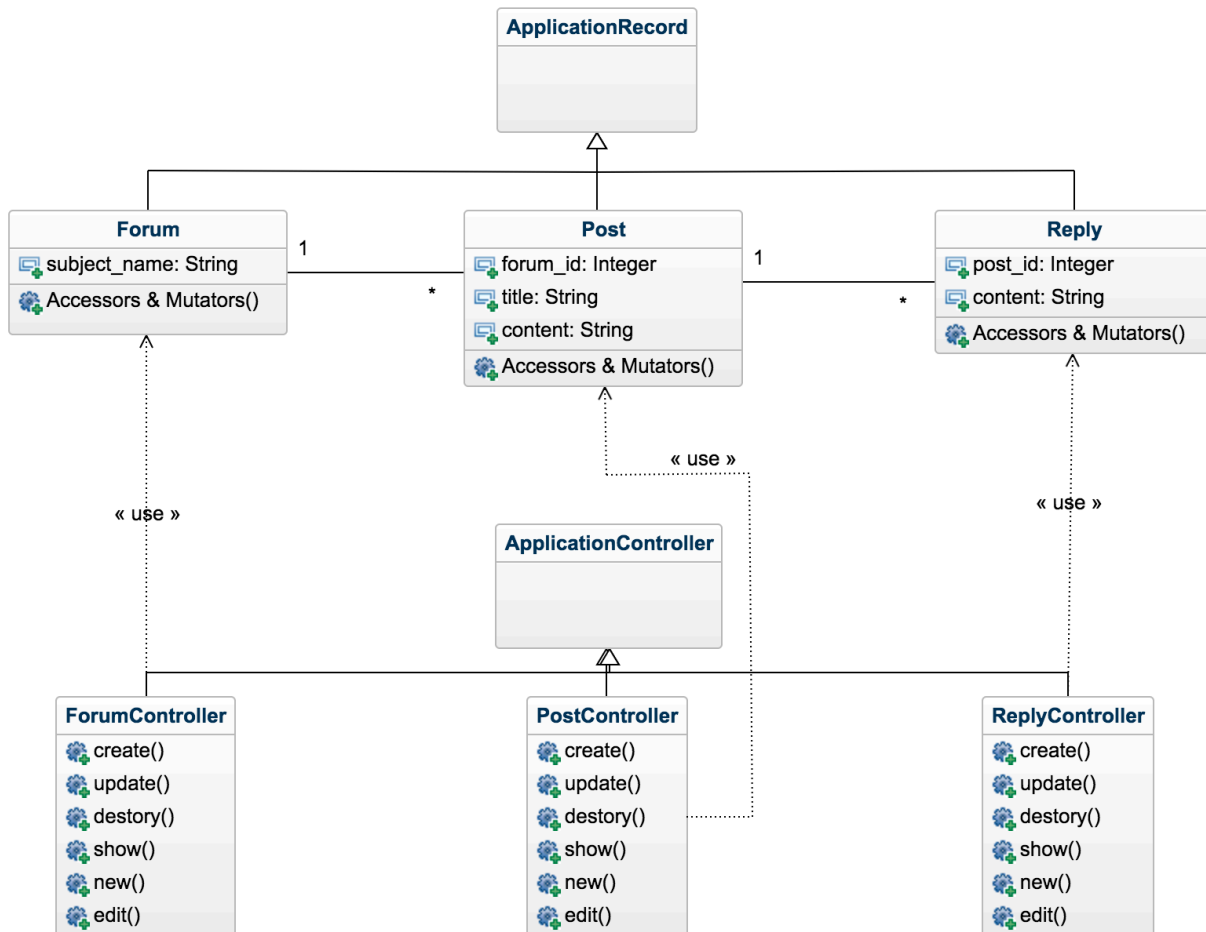
forum_controller – Given a subject_name, the forum_controller will use the necessary CRUD operation to create an instance of the forum class.

post_controller – Given a title, content and the forum_id of an existing forum instance, the post_controller will call upon the proper CRUD operation to create a new instance of the post class.

replies_controller – Given a content and the post_id of an existing post instance, the replies_controller will create an instance of the reply class.

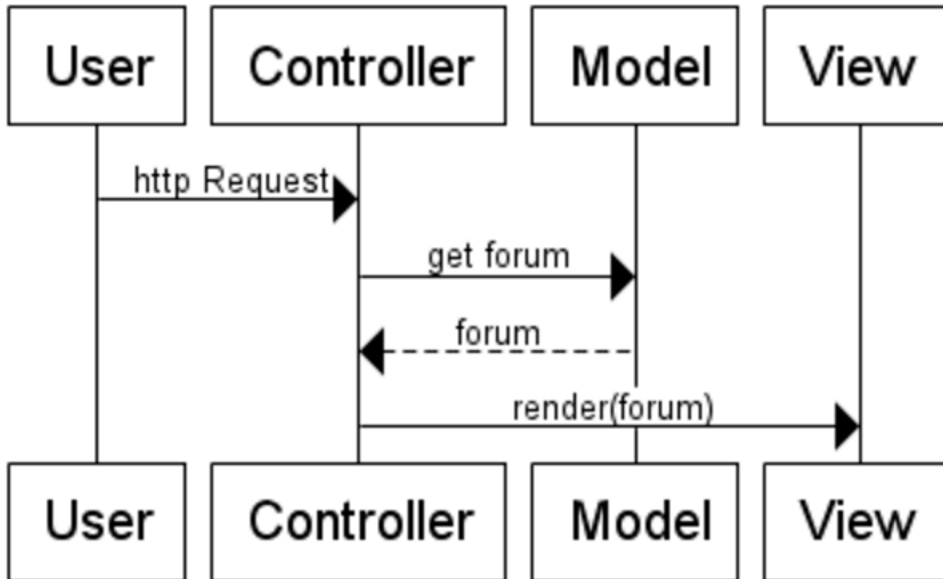
In addition, all the above controllers have CRUD operations to modify and delete entity instances (update and destroy respectively).

Class Diagram

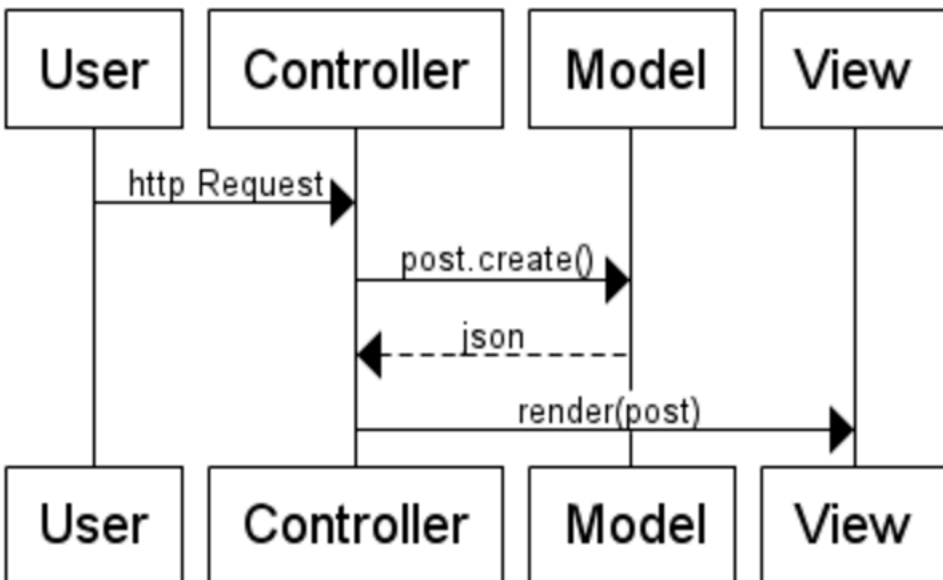


Sequence Diagrams

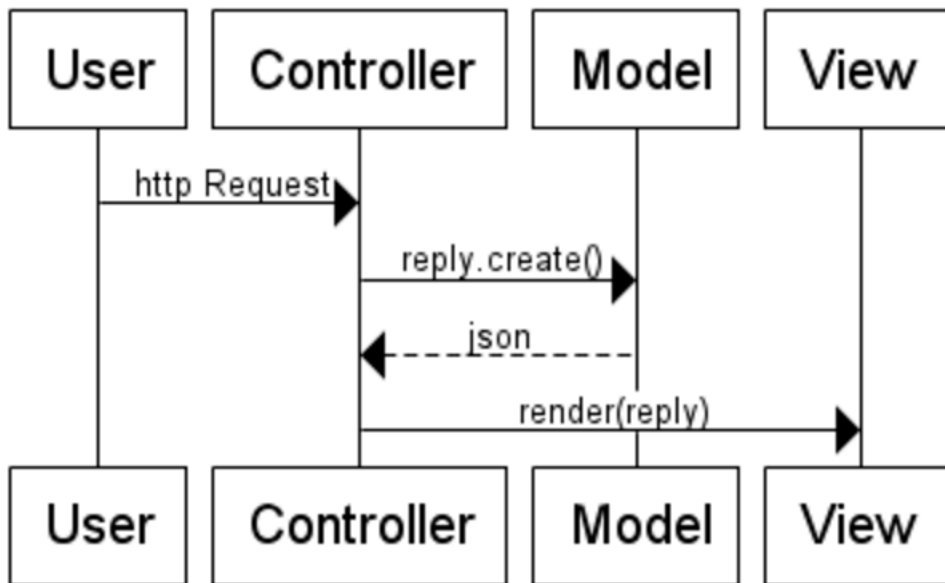
1. View Forum



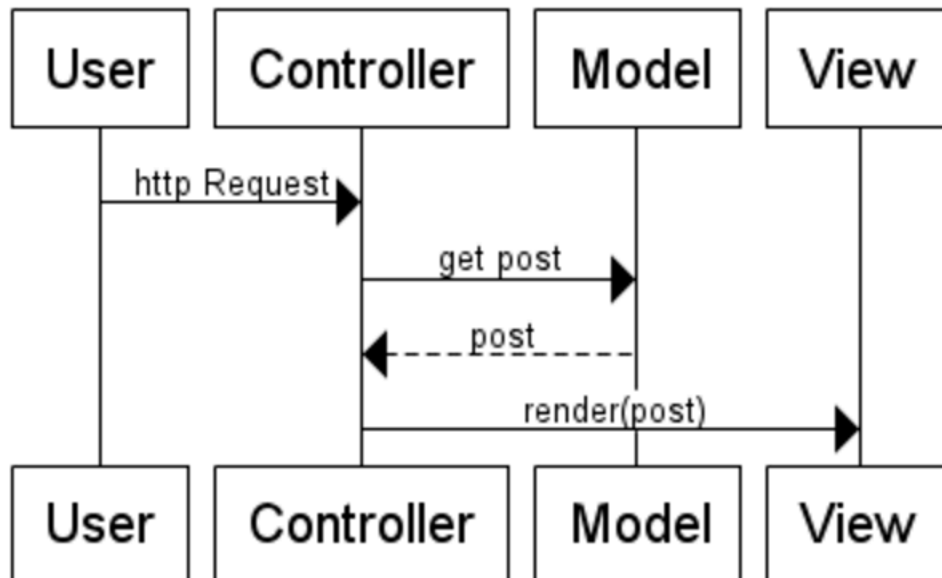
2. Ask Question



3. Answer Question



4. View Thread



Database

Tables:

Forum (corresponds to the forum model):

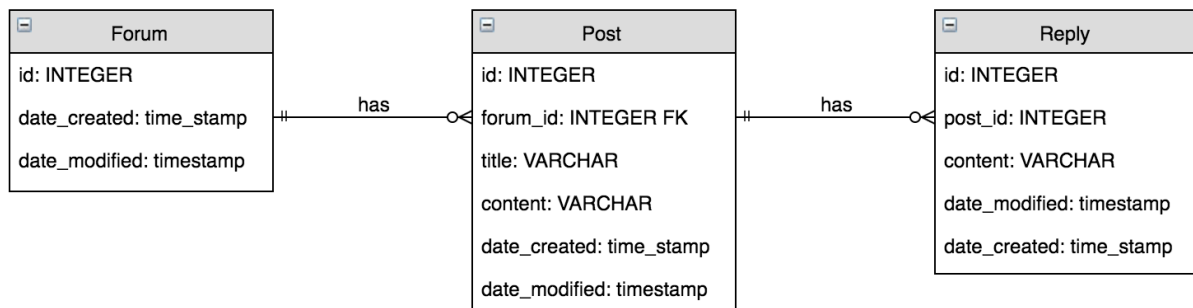
- id: integer
- date_created
- date_modified

Post (corresponds to the post model):

- id: integer
- forum_id: integer FK
- title: string
- content: string
- date_created
- date_modified

Reply (corresponds to the reply model):

- id: integer
- content: string
- date_created
- date_modified



Forum has 0...* Post entities associated to it. forum_id is a foreign key in the Post table.

Post has 0...* Reply entities associated to it. post_id is a foreign key in the Reply table.

Rails Console Commands

```
Forum.create(subject: "subject name")
```

```
Post.create(forum_id: "forum_id", title: "title", content: "content")
```

```
Reply.create(post_id: "post_id", content: "content")
```