Arvados - Bug #3416

[API] Clean up exception raise/rescue usage, use 4xx and 5xx appropriately

07/30/2014 09:48 AM - Tom Clegg

Status:	New		**Start date:**	
Priority:	Normal		**Due date:**	
Assigned To:			**% Done:**	0%
Category:			**Estimated time:**	0.00 hour
Target version:	Arvados Future Sprints			

Description

Background:

- Most exceptions in API server result in 422, even if they arise from server bugs that the client doesn't have any hope of fixing.
- There is a specific list of exceptions that are rendered as 404.
- The render_error action asks the exception object for an http_status (if respond_to?(:http_status)). PermissionDeniedError uses this.

Desired behavior:

- Model validation errors, and similar exceptions we generate in normal server operation, should render 422.
- Exceptions other than the expected ones should render 500.

Implementation notes:

- In render_error, default to 500.
- Make a subclass of StandardError (something like RequestError) with an http_status method that returns 422.
- Subclass RequestError with more specific error classes, returning different http_status if appropriate. For example, ArvadosModel::PermissionDeniedError should subclass RequestError instead of StandardError.
- Use these new exceptions in some of the more obvious places. Over time we'll catch more 500s that should be 400s, and fix them.

Perhaps tangential, but in the same code:

- Report the name of the exception class in a separate hash key ("error_class"?) if the HTTP status code is 4xx. This can make it possible for clients to react appropriately to specific errors without having to parse the human-readable error message.
- In production mode, dump stack traces for 5xx but not 4xx. In dev mode, dump always. This should be accomplished by always dumping but using the appropriate log level (4xx debug vs. 5xx error) so the administrator still has the option of turning on 4xx stack traces.

History

#1 - 07/30/2014 10:12 AM - Tom Clegg

- Description updated

#2 - 07/30/2014 10:36 AM - Tom Clegg

- Target version set to Arvados Future Sprints

#3 - 07/30/2014 01:14 PM - Tom Clegg

- Description updated

#4 - 09/19/2014 06:29 PM - Brett Smith

Please also change the Python SDK so it no longer retries 422 after this is done.