REST Services

DESCRIPTION

Trello (https://trello.com/) is a popular web application that helps teams collaborate on projects. Click on the link and briefly explain how it conforms to all the REST design principles and constraints (specifically client-server architecture, layered, stateless, cacheable, uniform interface).

Using your browser or developer tools to see HTTP requests and responses will help with this assignment.

ANSWERS

Layered

Cannot actually prove that Trello is layered, but it can be assumed that it has a client-server layered architecture.

Client-server

The client is the trello web application and the server is the backend that responds to client responses.

Interactions are stateless

API requests include the information to grab all resources so that the server does not have to save information about user states.

Example of request:

https://trello.com/1/Members/me?boards=open%2Cstarred&board_fields=name%2Cclosed%2CdateLastActivity%2CdateLastView%2CdatePluginDisable%2CidOrganization%2Cprefs%2CshortLink%2CshortUrl%2Curl%2Csubscribed&boardStars=true&boardsInvited=all&boardsInvited_fields=name%2Cclosed%2CdateLastActivity%2CdateLastView%2CdatePluginDisable%2CidOrganization%2Cprefs%2CshortLink%2CshortUrl%2Curl%2Csubscribed&board_organization=true&board_organization_fields=name%2CdisplayName%2Cproducts%2Cprefs%2ClogoHash%2CidEnterprise%2Ctags&credits=invitation%2CpromoCode&organizations=all&organization_fields=name%2CdisplayName%2Cproducts%2Cprefs%2ClogoHash%2CidEnterprise%2Ctags%2Cmemberships&organizationsInvited=all&organizationsInvited_fields=name%2CdisplayName%2Cproducts%2Cprefs%2ClogoHash%2CidEnterprise%2Ctags&paid_account=true

Clients can cache responses – cacheable

Web browser saves login as cookies so that can stay logged in to make requests.

Uniform interface for communication - done through URLs and data communicated using XML or JSON

API requests use URL. Request URL example to get cards: https://trello.com/1/cards

API responses return JSON objects.

Example:

{"id":"59b5c0d89835e1c9b2b8fc48","badges":{"votes":0,"attachmentsByType":{"trello":{"board":0,"card":0}},"viewingMemberVoted":false,"subscribed":false,"fogbugz":"","checkItems":0,"checkItemsChecked":0,"comments":0,"attachments":0,"description":false,"due":null,"dueComplete":false},"checkItemStates":[],"closed":false,"dateLastActivity":"2017-09-10T22:46:48.682Z","desc":"","descData":{"emoji":{}},"due":null,"dueComplete":false,"email":"test@boards.trello.com","idBoard":"59b5c06710dee824c2771e36","idChecklists":[],"stickers":[],"idLabels":[],"idList":"59b5c06710dee824c2771e37","idMembers":[],"idShort":1,"idAttachmentCover":null,"labels":[],"manualCoverAttachment":false,"name":"test","pos":65535,"shortUrl":"https://trello.com/c/4hCddeXvv1","url":"https://trello.com/c/4hCeXsdvvv1/1-test"}