Module Assembly - Topcoder NodeJS Submit Des Challenge API v1.0 Deployment Guide

Revision History

Author	Revision Number	Date
kurtrips	1.0	2014/03/23

Deployment Instructions

1. Organization of Submission

The folder structure (the root directory of the submission is referred as the <base> throughout the document)

Name	Description
tc-api/	Main application source code of this assembly. Contains only new or changed files.
tc-api/doc/Module Assembly - TopCoder NodeJS Submit Des Challenge API v1.0.doc	This file.

2. Application Setup

2.1. Preconditions

- Linux 64bit System (preferably the Ubuntu 10.04), which is used by Heroku stack for Nodejs), with development tool, such as g++, maker.
- NodeJS 0.10.21 http://nodejs.org/
- Git
- Heroku Account and Toolbelt
  - Signup a Heroku account in https://api.heroku.com/signup/devcenter with your email address.
  - Download the Heroku Toolbelt from https://toolbelt.heroku.com, and make sure the Heroku CLI is working in your environment by typing the “heroku help”.
  - Login your Heroku account by typing the “**heroku login**”.

  This requires you to input your email and password, and then finally it will upload your public SSH key to the server so that you don’t have to provide your credential during the subsequent commands.

  If you have a “Permission denied (publickey)” error during deployment, you can use “heroku keys:add” to add the public key to the remote repo as described here.

2.2. Build Script Setup

Two BASH scripts are used to ease the deployment.

- deploy/development.sh

  It helps to launch the application locally.

It simply exports the configured environment variables and then launch the Node.js application.

- deploy/heroku.sh

  It helps to deploy the application onto the Heroku cloud.

  It has command line switches.

Switch	Description
clean	It cleans the current repository information by simply removing the .git folder.
commit	It initializes the local repository and commits all the current project files, if the current directory is not a GIT repo yet; or commit all the changes to the local repository, if the current directory is already a GIT repo.
create	It creates a Heroku app for the current logged-in Heroku account. This app will only be used if it is created when the current local GIT repo has not yet setup the remote repo of name “heroku”. If your local repo has already setup “heroku” remote for an existing app, this app will not be picked as the target app for other Heroku commands. If you want to create an new Heroku app and use it as the target app in this case, you can clean and re-initialize the current local repo first, or you explicitly rebase it to the new Heroku app.
config	It exports all the configured environment variables to the target Heroku app.
push	It pushes the current committed version to the “heroku” remote.
launch	It launches one Heroku dyno to run the target app.
all	It will execute all other steps in the order: “clean”, “commit”, “create”, “config”, “push”, and then “launch”.
deploy	It only executes the steps to deploy the projects to the Heroku cloud: “config”, “push”, and then “launch”. It assumes the code has been committed to the local repo, and the local repo has setup the “heroku” remote for the target app.

3. Database setup

1. Upload the submission to /mnt/shared/temp_files/
2. Login vm as ‘tc’ account
3. cd /mnt/shared/temp_files
4. unzip submission.zip
5. su informix -l
6. cd /mnt/shared/temp_files/submission/tc-api/db_scripts

7. Insert test data into DB using '**submit_des_challenge.insert**' in db_scripts folder. Use the following command:

   dbaccess < **submit_des_challenge.insert**

   There is also a '**submit_des_challenge.delete**' to clean the data.

4. Configurations

There are two BASH scripts used to ease the deployments and launching of the application.

The configurations are defined in these scripts to export the environment variables.

One of them is for local development “tcapi/deploy/development.sh”, where the configurations are defined.

Please replace VM_IP variable with your actual VM IP

```
VM_IP=54.204.253.124
```

No changes are required to tc-api/deploy/heroku.sh.

In this contest, there are additional configuration parameters added to the config.js.

They are described below:

Configuration	Description
designSubmissionsBasePath	The name of the folder where to store the submission files. Please make sure the directory already exists. It can be absolute or relative to the application base directory. This value is superseded by an environment variable of the name DESIGN_SUBMISSIONS_BASE_PATH, if it exists.
designSubmissionTmpPath	The name of the folder where to store temporary files while creating the unified submission. Please make sure the directory already exists. It can be absolute or relative to the application base directory. This value is superseded by an environment variable of the name DESIGN_SUBMISSIONS_TMP_PATH, if it exists. Please note that cleaning up this directory on a regular

	basis should be done by a backend cron job. This looks like it is already in place in the current TopCoder system.
redis.cacheFileTypesKey	The key to store the file types in cache. Defaults to "file_types"
redis.cacheDefaultLifetime	The default lifetime of objects stored in cache in redis.

5. Deployment Instructions

1. Setup heroku as defined in section 2.1 and database in section 3.
2. Run **git clone** https://github.com/cloudspokes/tc-api and then checkout the commit number eeb0cabed397aa6889385849a187e0ac0dfc2ebb
3. Copy all files from **submission/tc-api** to checked out **tc-api** and override all files
4. Replace VM_IP as described in section 4.
5. Run **npm install**
6. In checked out tc-api run:
    a. chmod +x deploy/heroku.sh
    b. . deploy/heroku.sh all
    c. After running the script, you can use **"git remote -v"** to see the "heroku" remote repo. The remote repo will be like **git@heroku.com:<app-name>.git**, you can know the create app name here.
7. To deploy application in local environment run:
    a. chmod +x deploy/development.sh
    b. . deploy/development.sh
    c. npm start
    d. Server is listening on port 8080.

6. Verification by tests

6.1.Js lint

Install the node-jslint in your local environment globally by "sudo npm install jslint -g".

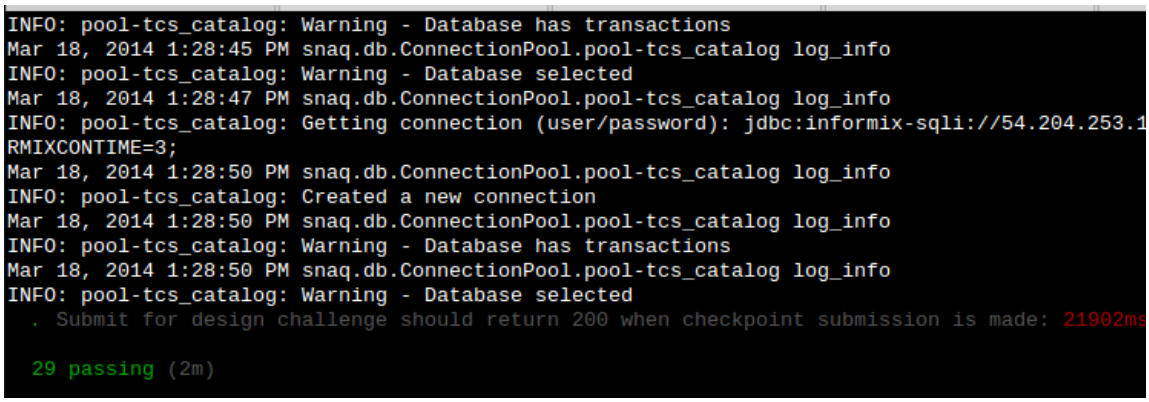
Check the following files (which contain the application code) under the <base>/tc-api

```
jslint -nomen actions/challenges.js
jslint -nomen initializers/helper.js
jslint -nomen config.js
jslint -nomen routes.js
jslint -nomen test/test.submitDesignChallenge.js
```

6.2.mocha

Run "**node_modules/.bin/mocha test/test.submitDesignChallenge.js**" from within the "<base>/tc-api/" directory.

There are 29 tests which should all pass.



7. Verification by pages

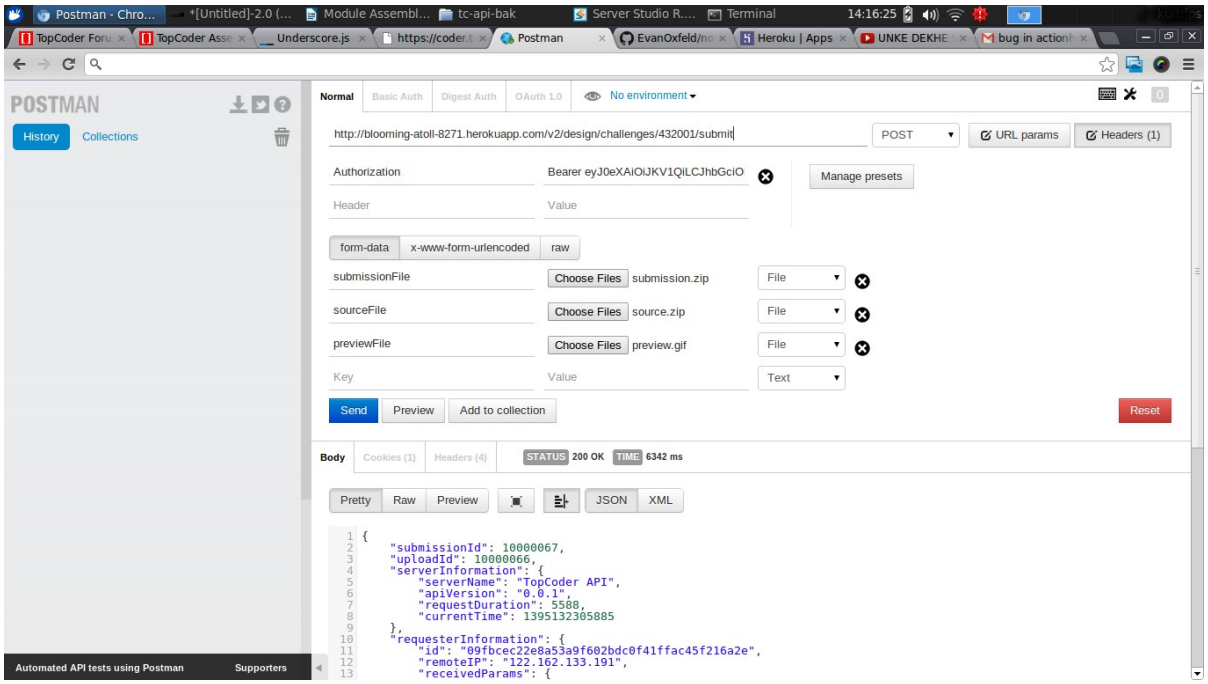
Please check updated apiary.apib docs for full parameter description.

The example screenshots are taken from Google Chrome's POSTMAN client. It is used because we need to use custom Authorization header and custom POST parameters. It can be found at
https://chrome.google.com/webstore/detail/postman-rest-client/fdmmgilgnpjigdojojpjoooidkmcomcm?hl=en

To generate the header, use **node test/helpers/manualJwt.js "facebook|fb124764"**
This will return a token like:
eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJmYWNlYm9va3xmYjQwMDAxMSIsImV4cCI6MTM5MTI2MDM1MSwiYXVkIjoidG9wY29kZXIiLCJpYXQiOjEzOTEyMDAzNTF9.C4M3NVjzrMAYs2VTFX5d4chaNdIta388NhGEC3pkiOI
*The value of the Authorization header is **Bearer<space><token>***

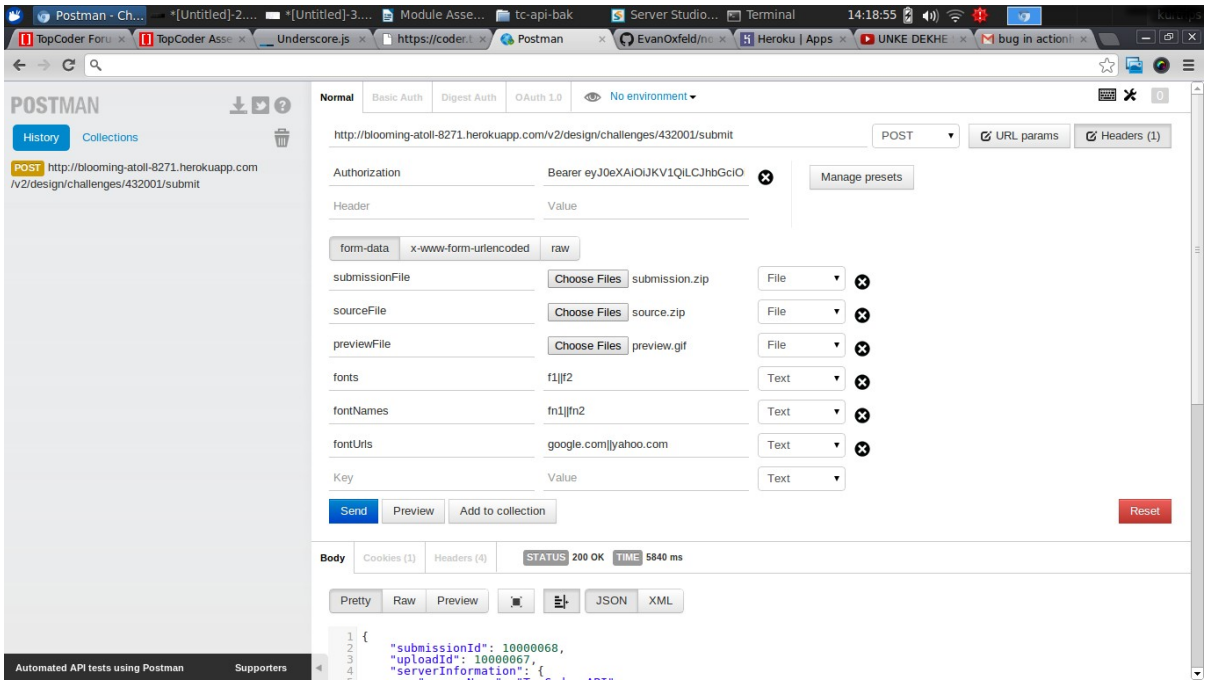
Submit Final Submission

Example
http://blooming-atoll-8271.herokuapp.com/v2/design/challenges/432001/submit



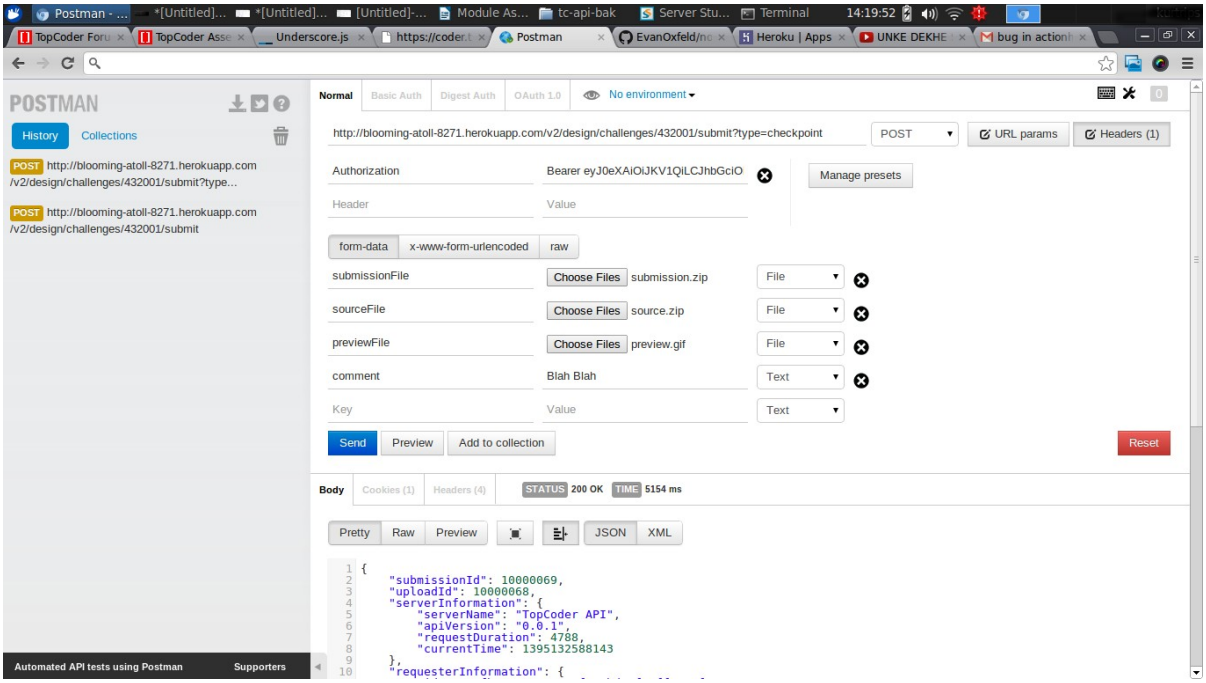
Submit Final Submission (with fonts)

Example
http://blooming-atoll-8271.herokuapp.com/v2/design/challenges/432001/submit
with the double pipe delimited font data



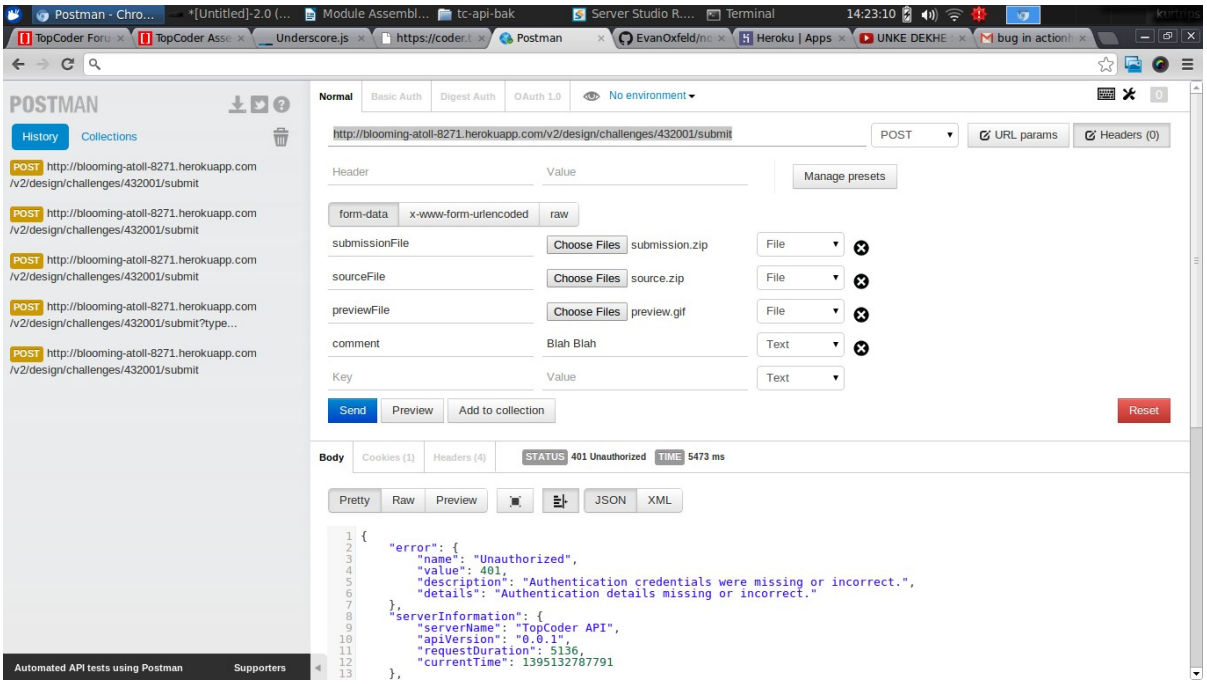
Submit Checkpoint Submission

Example
http://blooming-atoll-8271.herokuapp.com/v2/design/challenges/432001/submit?type=checkpoint



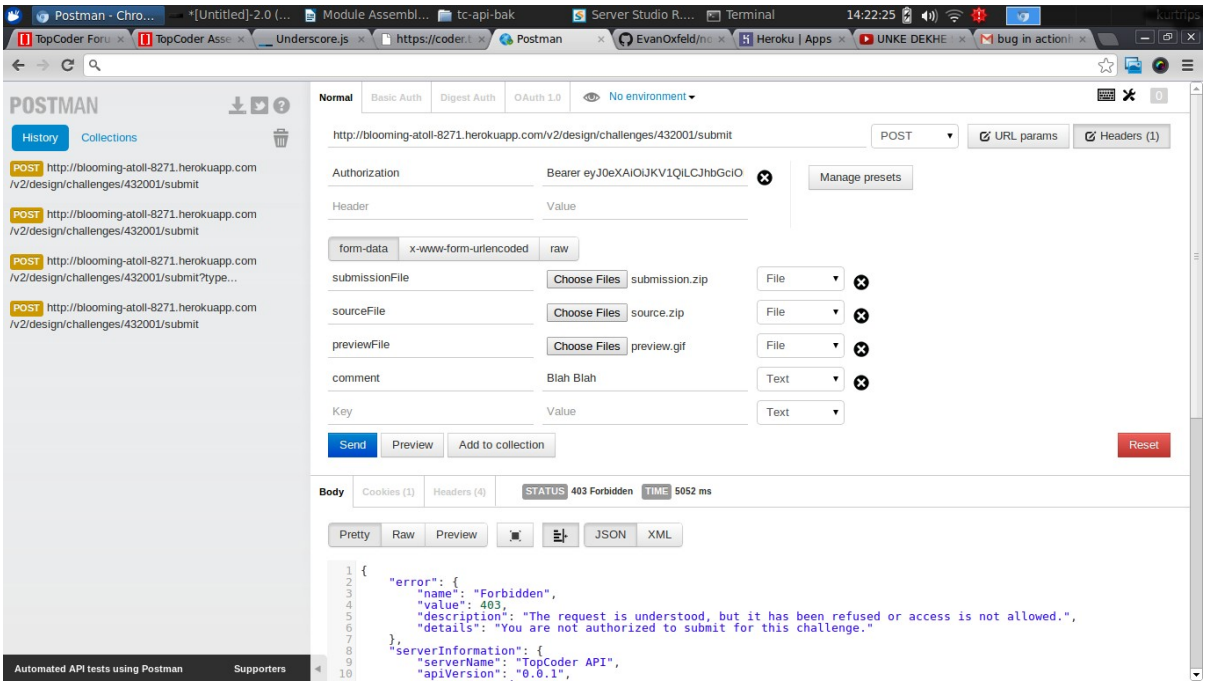
User not logged in

http://blooming-atoll-8271.herokuapp.com/v2/design/challenges/432001/submit
without the Authorization Header



User not a Submitter for the challenge

http://blooming-atoll-8271.herokuapp.com/v2/design/challenges/432001/submit
with Authorization Header of another user 'fb124766' who is not registered for challenge.



8. Resource Contact List

Name	Resource Email
TCSASSEMBLER	