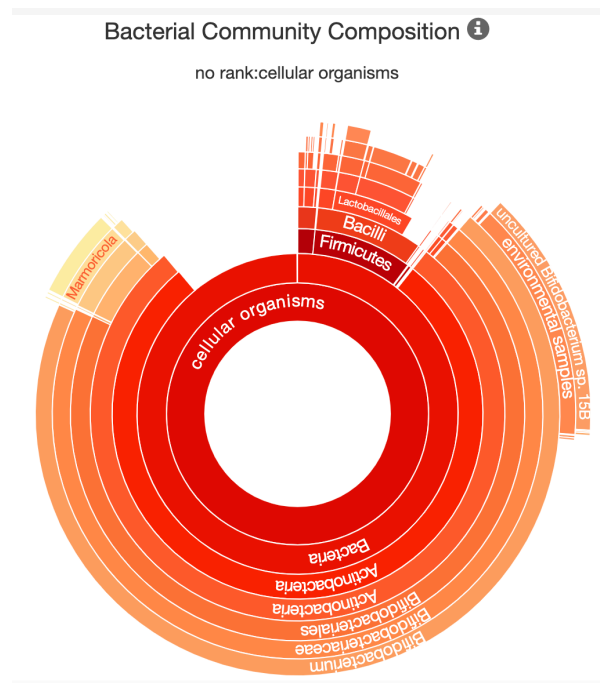


IDbyDNA QA Engineer Candidate Project

Background

[Taxonomer.com](https://www.taxonomer.com) is a web application created by IDbyDNA that allows researchers to analyze DNA/RNA sequencing data with the Taxonomer classification algorithm. Taxonomer takes sequences and for each one assigns the most likely organism from which the sequence originated. The analysis results are displayed in an interactive “sunburst” chart that allows the user to zoom in and out of the taxonomic tree of life.



You can register for an account for free at <https://www.taxonomer.com>. Taxonomer.com allows users to upload their own sequencing data or analyze data uploaded to the [NCBI Sequencing Read Archive](https://www.ncbi.nlm.nih.gov/sra/) (SRA), a public database of sequencing data.

Project

Please write automated tests for Taxonomer.com that perform the steps detailed below. The tests should **generate evidence of the results** in the form of screenshots or video. You can use any tool for browser automation, such as Selenium or Cypress. The tests can be implemented in any language.

Some test procedures describe entering a valid SRA Run ID. These are some example Run IDs that you can use for creating the tests:

SRR8641379
SRR8538332
ERR1978315

For invalid SRA Run IDs, you can use any string that doesn't start with "SRR", "ERR", or "DRR".

Create Analysis

Test Case	Page	Test Steps	Expected Result
Create an Analysis from the Analysis list page	Analysis List	Click the "New Analysis" button. Fill in the form and submit. Click "Select Reads" and choose "Enter SRA Run ID." Enter a valid SRA Run ID. Click Submit.	Analysis started
Create an Analysis on homepage from an invalid SRA Run ID	Home Page	Click the big yellow "Analyze your sequencing data" button. Fill in the form and submit. Click "Select Reads" and choose "Enter SRA Run ID." Click "Select Reads." Enter an invalid SRA Run ID. Click Submit.	Error message
Create an Analysis from the "Quick Analysis" button	Home Page	Click Quick Analysis and choose "Enter SRA Run ID." Enter a valid SRA Run ID.	Analysis started
Verify invalid SRA Run ID Quick Analysis	Home Page	Click Quick Analysis and choose "Enter SRA Run ID." Enter an invalid SRA Run ID.	Error message

Delete Analysis

Test Case	Page	Test Steps	Expected Result
Delete an analysis on the home page	Home Page	Click the red delete icon for any analysis. Click "Delete" to confirm	Analysis deleted
Delete an analysis on the home page and cancel	Home Page	Click the red delete icon for any analysis. Click "Cancel."	Analysis not deleted
Delete an analysis from the Analysis list page	Analysis List	Click the red delete icon for any analysis. Click "Delete" to confirm	Analysis deleted

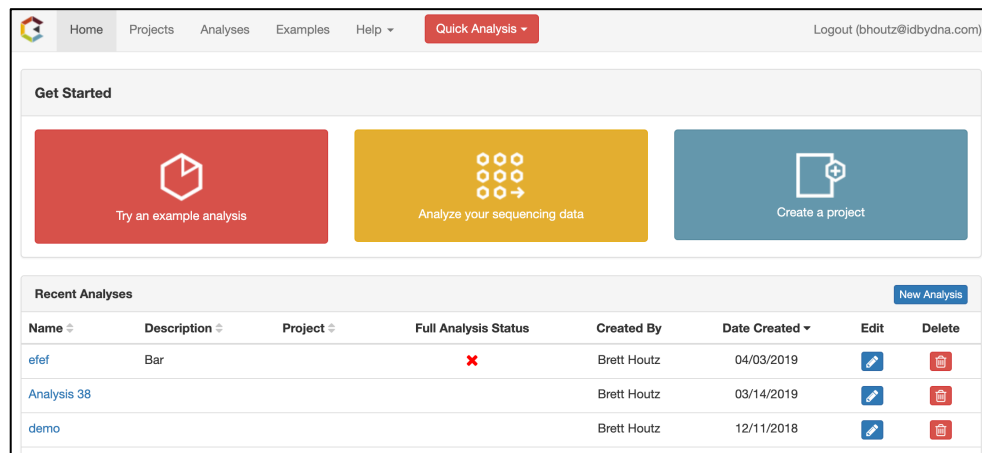
Edit Analysis

Test Case	Page	Test Steps	Expected Result
Update name and description via home page and save	Home Page	Click the "Edit" icon for an analysis. Append "updated" to both fields, then click "Update."	New analysis details saved
Update name and description via Analysis list page and save	Analysis List	Click the "Edit" icon for an Analysis. Append "updated" to both fields, then click "Update."	New analysis details saved
Update name and description via Results page and save	Analysis Results	Click the blue "i" in the right-hand corner. Click "Edit Analysis." Append "updated" to both fields, then click "Update."	New analysis details saved

Appendix – Pages

Home Page

This is the page that is displayed upon first logging in. You can return to it by clicking “Home” in the navigation bar.



Analysis List

The Analysis List page shows the list of all analyses a user has created. You can navigate to it by clicking “Analyses” in the navigation bar.

HomeProjectsAnalysesExamplesHelpQuick AnalysisLogout (bhoutz@idbydna.com)

Analyses

New Analysis

Name	Description	Project	Full Analysis Status	Created By	Date Created	Edit	Delete
efef	Bar		✖	Brett Houtz	04/03/2019		
Analysis 38				Brett Houtz	03/14/2019		
demo				Brett Houtz	12/11/2018		
a2		test1		Brett Houtz	11/16/2018		
a1		test1		Brett Houtz	11/16/2018		
SRR077313				Brett Houtz	11/06/2018		
ERR2021502				Brett Houtz	11/06/2018		

Analysis Results

The Analysis Results page displays the results of an analysis that a user created.

