



Zendesk Melbourne - Coding Challenge

OVERVIEW

Using the provided data (tickets.json and users.json and organization.json) write a simple command line application to search the data and return the results in a human readable format.

- Feel free to use libraries or roll your own code as you see fit. However, please do not use a database or full text search product as we are interested to see how you write the solution.
- Where the data exists, values from any related entities should be included in the results, i.e. searching organization by id should return its tickets and users.
- The user should be able to search on any field, full value matching is fine (e.g. "mar" won't return "mary").
- The user should also be able to search for empty values, e.g. where description is empty.

Search can get pretty complicated pretty easily, we just want to see that you can code a basic but efficient search application. Ideally, search response times should not increase linearly as the number of documents grows. You can assume all data can fit into memory on a single machine.

EVALUATION CRITERIA

We will look at your project and assess it for:

1. Extensibility - separation of concerns.
2. Simplicity - aim for the simplest solution that gets the job done whilst remaining readable, extensible and testable.
3. Test Coverage - breaking changes should break your tests.
4. Performance - should gracefully handle a significant increase in the amount of data provided.
5. Robustness - should handle and report errors.
6. Usability - Should provide installation instructions and how easy it is to use the

application

7. General technical skills - Demonstrate proficiency in the chosen language and strong attention to details

If you have any questions about these criteria please ask.

SPECIFICATIONS

- Use the language in which you are strongest.
- Include a README with (accurate) usage instructions.
- Document the assumptions and tradeoffs you've made.

SUBMISSION

GitHub is the preferred option (a public repository is fine) but we will also accept a .zip file if necessary.

HINT

One of the assessors wrote [How To Pass A Coding Test](#).

SAMPLE OUTPUT

Note: This output is not prescriptive, in fact we encourage you to do better.

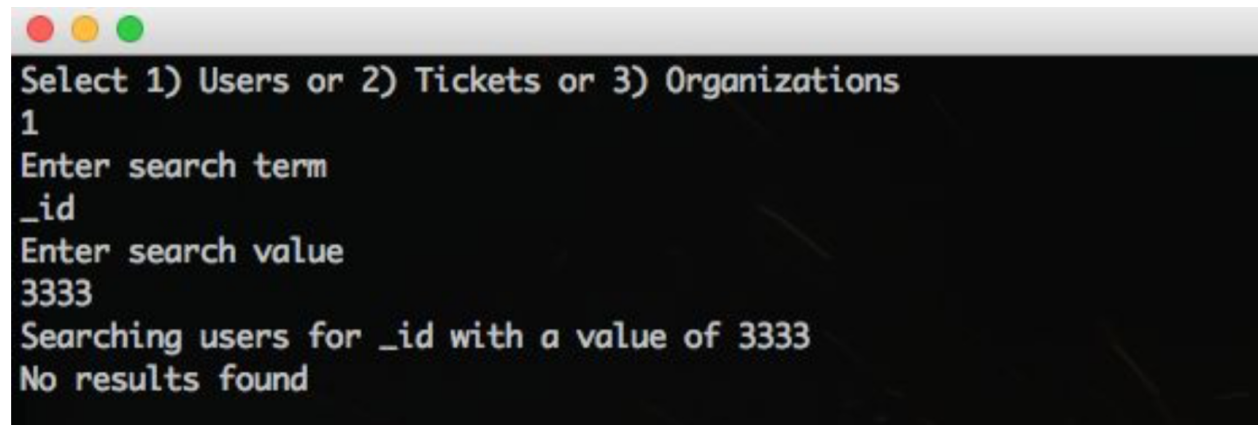
CLI - Display Results

```
1. ruby
Welcome to Zendesk Search
Type 'quit' to exit at any time, Press 'Enter' to continue

Select search options:
* Press 1 to search Zendesk
* Press 2 to view a list of searchable fields
* Type 'quit' to exit

1
Select 1) Users or 2) Tickets or 3) Organizations
1
Enter search term
_id
Enter search value
71
_id          71
url          http://initech.zendesk.com/api/v2/users/71.json
external_id  c972bb41-94aa-4f20-bc93-e63dbfe8d9ca
name         Prince Hinton
alias        Miss Dana
created_at   2016-04-18T11:05:43 -10:00
active       true
verified     false
shared       false
locale       zh-CN
timezone     Samoa
last_login_at 2013-05-01T01:18:48 -10:00
email        danahinton@flotonic.com
phone        9064-433-892
signature    Don't Worry Be Happy!
organization_id 121
tags         ["Davenport", "Cherokee", "Summertown", "Clinton"]
suspended    false
role         agent
organization_name Hotcakes
ticket_0     A Catastrophe in Micronesia
ticket_1     A Drama in Wallis and Futuna Islands
ticket_2     A Drama in Australia
```

CLI - No Search Result

A terminal window with a dark background and light gray text. The window has a title bar with three colored buttons (red, yellow, green) on the left. The text inside the terminal shows a sequence of prompts and user input. The prompts are "Select 1) Users or 2) Tickets or 3) Organizations", "Enter search term", and "Enter search value". The user input is "1", "_id", and "3333". The terminal then displays the message "Searching users for _id with a value of 3333" and finally "No results found".

```
Select 1) Users or 2) Tickets or 3) Organizations
1
Enter search term
_id
Enter search value
3333
Searching users for _id with a value of 3333
No results found
```

CLI - List Searchable Fields

```
-----  
Search Users with  
_id  
url  
external_id  
name  
alias  
created_at  
active  
verified  
shared  
locale  
timezone  
last_login_at  
email  
phone  
signature  
organization_id  
tags  
suspended  
role  
-----  
Search Tickets with  
_id  
url  
external_id  
created_at  
type  
subject  
description  
priority  
status  
recipient  
submitter_id  
assignee_id  
organization_id  
tags  
has_incidents  
due_at  
via  
requester_id  
-----  
Search Organizations with  
_id  
url  
external_id  
name  
domain_names  
created_at  
details  
shared_tickets  
tags
```