



# 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.

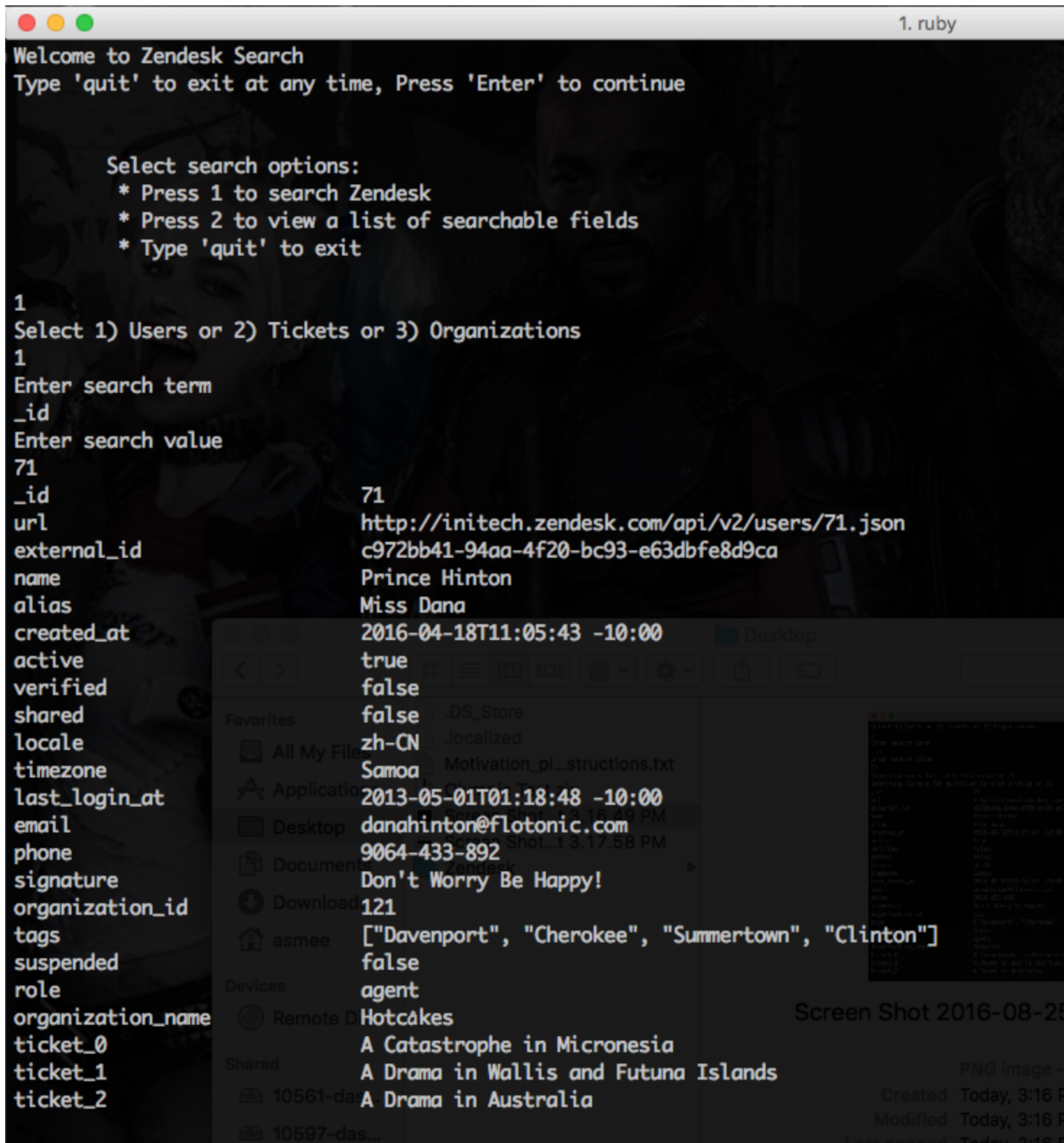
## **SUBMISSION**

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

## SAMPLE OUTPUT

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

### CLI - Display Results

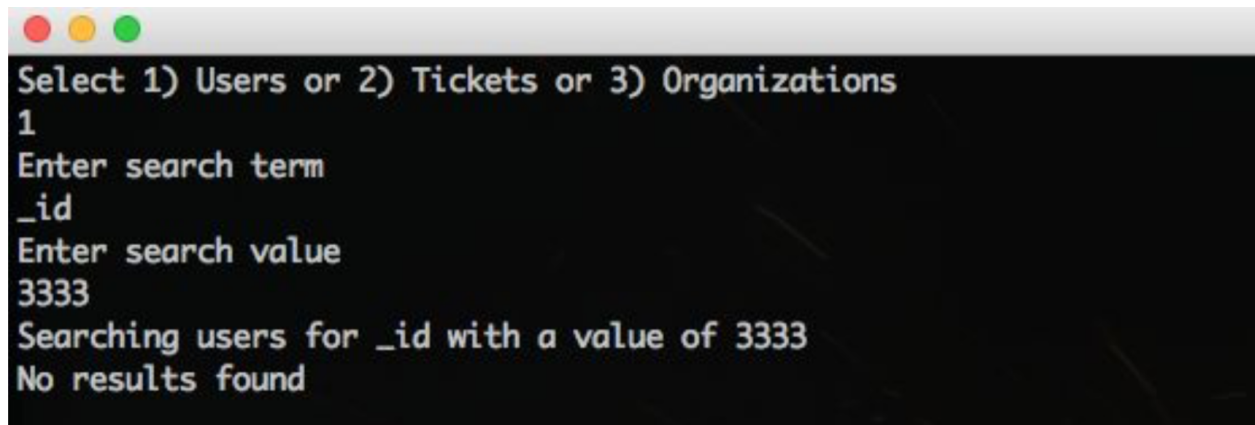


```
1. ruby
Welcome to Zendesk Search
Type 'quit' to exit at any time, Press 'Enter' to continue

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 green 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
```