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.

* 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 amount of data provided (e.g 10000+ users).
5. Robustness - should handle and report errors.

If you have any questions about this 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 repo 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 is output is not prescriptive, in fact we encourage you to do better.

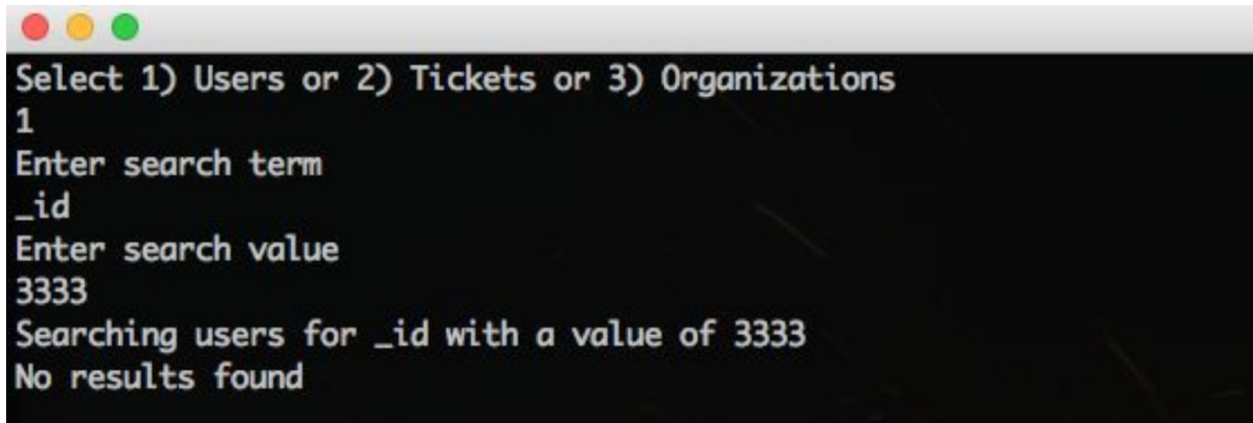## CLI - Display Results

```
●●●                                                         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

```
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
```