Experiment – 4: Use Google analytics tools to implement the following:

b. Visitor Profiles

Through the Google Analytics dashboard, you can learn details about your website and app visitors and create advanced audience segments based on information such as: Age and gender, Locations and languages and Devices most used to browse.

A Dashing widget for displaying the number of visitors to your website over a specified timeframe, as reported by Google Analytics

Dependencies

google-api-ruby-client

Add it to dashing's gemfile:

    gem 'google-api-client'

and run

    bundle install.

Usage

To use this widget, you'll first need to set up a Google API project and attach it to the Google Analytics profile you wish to monitor.

1. Create and download a new private key for Google API access.

1. Go to https://code.google.com/apis/console
2. Click 'Create Project'
3. Enable 'Analytics API' service and accept both TOS's
4. Click 'API Access' in the left-hand nav menu
5. Click 'Create an OAuth 2.0 Client ID'
6. Enter a product name (e.g. Dashing Widget) - logo and url are optional
7. Click 'Next'
8. Under Application Type, select 'Service Account'
9. Click 'Create Client ID'
10. Click 'Download private key' NOTE: This will be your only opportunity to download this key.
11. Note the password for your new private key ('notasecret')

12. Close the download key dialog

2. Attach your Google API service account to your Google Analytics profile

Note: you will need to be an administrator of the Google Analytics profile

1. Log in to your Google Analytics account: http://www.google.com/analytics/
2. Click 'Admin' in the upper-right corner
3. Select the account containing the profile you wish to use
4. Select the property containing the profile you wish to use
5. Select the profile you wish to use
6. Click the 'Users' tab
7. Click '+ New User'
8. Enter the email address you copied from step 13 above
9. Click 'Add User'

3. Locate the ID for your Google Analytics profile

1. On your Google Analytics profile page, click the 'Profile Settings' tab
2. Under 'General Information' copy your Profile ID (e.g. 654321) - you'll need it in your ruby code later

4. Start coding (finally)

1. Copy the visitor_count.rb file in to your dashing jobs\ folder.
2. Update the service_account_email, key_file, key_secret and profileID variables

   service_account_email = '[YOUR SERVICE ACCOUTN EMAIL]' # Email of service account

   key_file = 'path/to/your/keyfile.p12' # File containing your private key

   key_secret = 'notasecret' # Password to unlock private key

   profileID = '[YOUR PROFILE ID]' # Analytics profile ID.

3. Add the widget HTML to your dashboard

   <li data-row="1" data-col="1" data-sizex="1" data-sizey="1">

       <div data-id="visitor_count" data-view="Number" data-title="Visitors This Month"></div>

visitor_count.rb:

```ruby
require 'google/api_client'
require 'date'

# Update these to match your own apps credentials
service_account_email = '[YOUR SERVICE ACCOUNT EMAIL]' # Email of service account
key_file = 'path/to/your/keyfile.p12' # File containing your private key
key_secret = 'notasecret' # Password to unlock private key
profileID = '[YOUR PROFILE ID]' # Analytics profile ID.

# Get the Google API client
client = Google::APIClient.new(:application_name => '[YOUR APPLICATION NAME]',
  :application_version => '0.01')

# Load your credentials for the service account
key = Google::APIClient::KeyUtils.load_from_pkcs12(key_file, key_secret)
client.authorization = Signet::OAuth2::Client.new(
  :token_credential_uri => 'https://accounts.google.com/o/oauth2/token',
  :audience => 'https://accounts.google.com/o/oauth2/token',
  :scope => 'https://www.googleapis.com/auth/analytics.readonly',
  :issuer => service_account_email,
  :signing_key => key)

# Start the scheduler
SCHEDULER.every '1m', :first_in => 0 do

  # Request a token for our service account
  client.authorization.fetch_access_token!

  # Get the analytics API
  analytics = client.discovered_api('analytics','v3')
```

```ruby
# Start and end dates
startDate = DateTime.now.strftime("%Y-%m-01") # first day of current month
endDate = DateTime.now.strftime("%Y-%m-%d")  # now

# Execute the query
visitCount = client.execute(:api_method => analytics.data.ga.get, :parameters => {
  'ids' => "ga:" + profileID,
  'start-date' => startDate,
  'end-date' => endDate,
  # 'dimensions' => "ga:month",
  'metrics' => "ga:visitors",
  # 'sort' => "ga:month"
})

# Update the dashboard
# Note the trailing to_i - See: https://github.com/Shopify/dashing/issues/33
send_event('visitor_count',  { current: visitCount.data.rows[0][0].to_i })
end
```