Volley

https://developer.android.com/training/volley/

Cont ...

- Volley is an HTTP library that makes networking for Android apps easier and most importantly, faster. Volley is available on GitHub.
- Volley offers the following benefits:
  - Automatic scheduling of network requests.
  - Multiple concurrent network connections.
  - Transparent disk and memory response caching with standard HTTP cache coherence.
  - Support for request prioritization.

Cont ...

- Cancellation request API. You can cancel a single request, or you can set blocks or scopes of requests to cancel.
- Ease of customization, for example, for retry and backoff.
- Strong ordering that makes it easy to correctly populate your UI with data fetched asynchronously from the network.
- Debugging and tracing tools.

Cont ...

- Volley excels at RPC-type operations used to populate a UI, such as fetching a page of search results as structured data.
- It integrates easily with any protocol and comes out of the box with support for raw strings, images, and JSON.
- By providing built-in support for the features you need, Volley frees you from writing boilerplate code and allows you to concentrate on the logic that is specific to your app.

Cont ...

- **NB**: Volley is not suitable for large download or streaming operations, since Volley holds all responses in memory during parsing.
- For large download operations, consider using an alternative like DownloadManager.
- The easiest way to add Volley to your project is to add the following dependency to your app's **build.gradle** file:

```
dependencies {
    compile 'com.android.volley:volley:1.1.1'
}
```

Make a standard request

- StringRequest. Specify a URL and receive a raw string in response.
- JsonObjectRequest and JsonArrayRequest (both subclasses of JsonRequest). Specify a URL and get a JSON object or array (respectively) in response.
- If your expected response is one of these types, you probably don't have to implement a custom request.

Request JSON

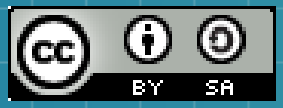
- Volley provides the following classes for JSON requests:
  - JsonArrayRequest—A request for retrieving a JSONArray response body at a given URL.
  - JsonObjectRequest—A request for retrieving a JSONObject response body at a given URL, allowing for an optional JSONObject to be passed in as part of the request body.

Cont ...

```
String url = "http://my-json-feed";
JsonObjectRequest jsonObjectRequest = new JsonObjectRequest
        (Request.Method.GET, url, null, new Response.Listener<JSONObject>() {

    @Override
     public void onResponse(JSONObject response) {
     }
}, new Response.ErrorListener() {

     @Override
     public void onErrorResponse(VolleyError error) {
     }
});
```



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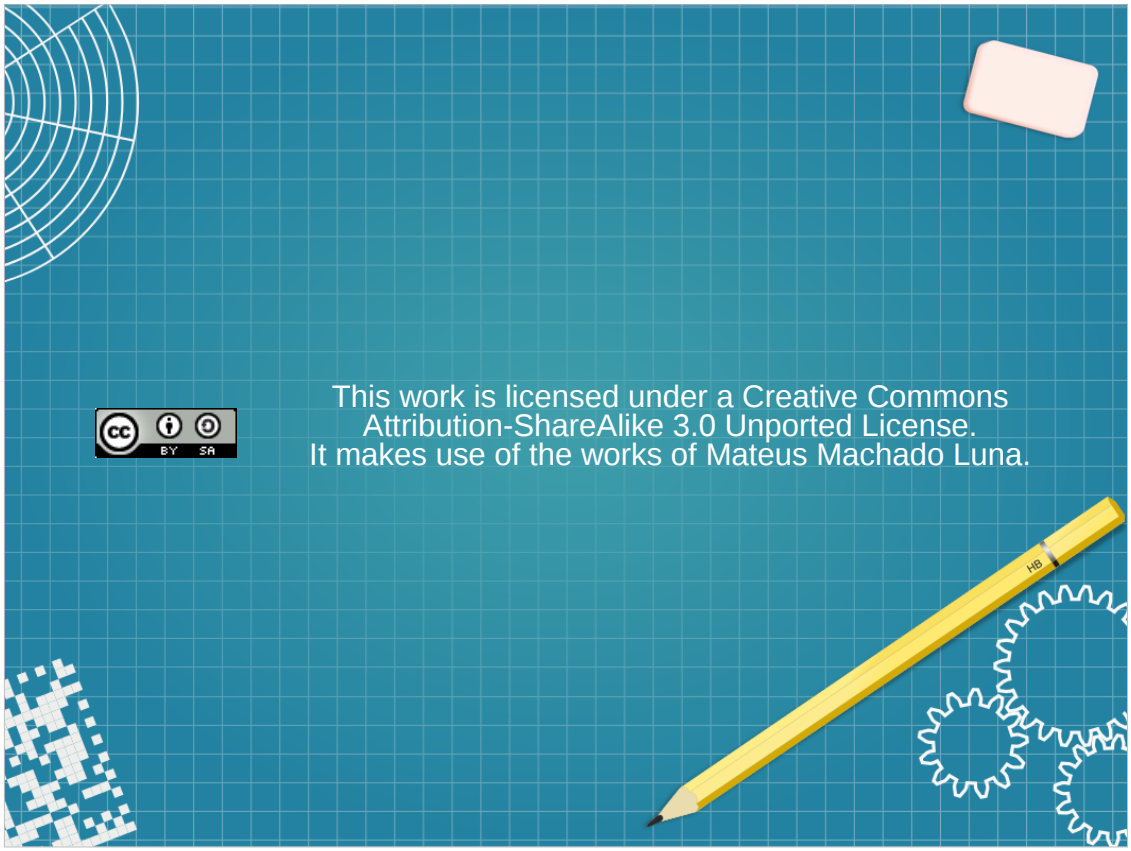
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