



Figure 4.3: Authentication for Google Contacts

This returns the secret token key, which is used with the applications token to access the contacts list. These two values are stored, along with the username, as a custom `SessionKeys` object in the memcache. The memcache is a short term memory primarily used for storing the results of commonly used queries from the datastore. When the memcache is full, elements are deleted to make way for the new data. The `SessionKeys` objects are set to expire after one hour, so each time a person visits the site they have to re-authenticate, but they will not have to perform this step again within an hour (unless the keys are pushed out of the memcache).

To fetch the contacts list the following code is used:

```

1  URL feedUrl = new URL("https://www.google.com/m8/feeds/contacts/
    default/full");
    ContactFeed resultFeed = myService.getFeed(feedUrl, ContactFeed.
        class);
3  int count = resultFeed.getTotalResults();
    URL feedUrl = new URL("https://www.google.com/m8/feeds/contacts/
        default/full");
5  Query myQuery = new Query(feedUrl);
    myQuery.setMaxResults(count);
7  myQuery.setStringCustomParameter("sortorder", "ascending");
    ContactFeed resultFeed = myService.query(myQuery, ContactFeed.
        class);
9  for (ContactEntry entry : resultFeed.getEntries()) {...}

```

The code above first fetches the results feed using the feedURL, and gets the total number of contacts. It then produces a query on the feedURL class so that the results are sorted. This