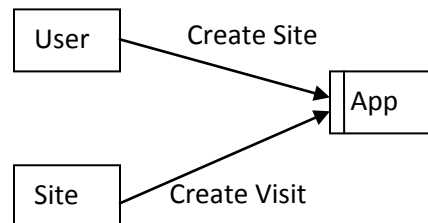


## Design Analysis for Web Analytics Service

### 1. Overview

This application is a web analytics service, similar to Google Analytics or Stat Counter, that provides data about the visits to websites, as well visits to individual pages in sites. It is meant to be a lightweight and easy to use service, not requiring account registration or extraneous details, and only showing vital information. Users register the hostname for a site and copy and paste a Javascript snippet into the webpages under that site to begin tracking them. All tracked hostnames are displayed on the main page, and each 'show' page for the name displays all urls under it with their average visit duration and number of visits.

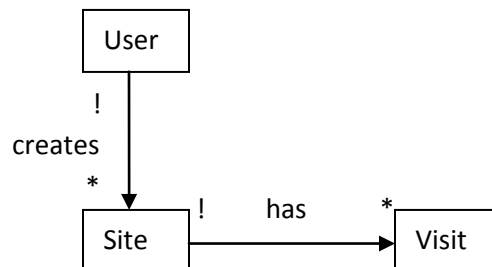
Context Diagram:



### 2. Concepts

The key concepts in this application are **sites** and **visits**. A site consist of a name and base url, or host name. A visit consists of a url and duration. A site has many visits, and a visit belongs to a single site.

Object Model Diagram:



### 3. Challenges

One challenge was how to deal with someone registering a site, and then putting their JavaScript snippet in multiple sites with different hostnames. To counter this, Visits are only created from sites with a hostname (gotten through the Javascript) matching the Site's base\_url.

Users must create a Site for each different hostname they wish to track. Another solution to this would be to not have Sites, and simply allow visits from any url, creating and sorting all visits on the server side. However, this wouldn't be as easy to manage for the user, since there would be no concept of a Site containing Visits, only Visits that must be searched through to find similar hostnames.

**Note on code design:** Duration was included as an attribute for Visits to allow for easier extensibility of this application in the future. If more analytics features are later required, like graphing visit duration per visitor, this design will allow for this without much modification.