

Project 1 part 1, Description of the Application

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We are going to develop a website to post and present articles and pictures, it belongs to the domain of the blog website. Examples of entities include user, blog, picture, and topic. Examples of relationship include user follows user, user posts blog/picture, and blog/picture belongs to topic. Real world constraints: a blog/picture should be only posted by one user, the Email address should be unique & valid, and the birthday should be from a valid range, etc. We plan to generate data for inserting into the database by ourselves, and we'll use some famous blogs/pictures from the Internet. Our website has a main page, where shows popular blogs/pictures (those "like" by many users) on the website. A visitor could register as a user, or just view blogs/pictures. User can follow each other when viewing blogs. Every user has a page of his own, here he has his events stream of his blogs/pictures, blogs/pictures from people he follows and blogs/pictures from the topic he subscribes. User can create blogs, delete blogs, update the contents of the blogs and upload pictures. And user is able to make comments on a certain blog and "like" the blog. Besides, we have a simple advertisement system where sponsors can push ads to a certain user set, which is a group of users selected by certain "filter". The "filter" follows JSON format, which defines the rules to select users. For example, {"age": [18, 20]} denotes users with an age between 18 and 20; {"sex": "male"} denotes all male users.