Enterprise Access to Financial Data

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Abstract: For any organization, whether it is maintained by government or controlled privately, it is very important to maintain a list of datasets with pointers to how those datasets can be accessed. It includes the consumer, who can access the data, download the bulk data and use it for their future reference. The publisher is generally an employee of the organization who is responsible for publishing the data or other content on the portal.

1. Introduction

When data size for any organization increases beyond a limit, it becomes necessary to monitor the data at a macro level. If data is not maintained properly with all the data entries being updated at a regular interval by capturing meta data about each dataset, paucity of data leads to misinterpretation. So, we need a discrete mechanism to track real time, monthly or yearly growth for a spatially organized data, which makes data easily available to all the stakeholders.

1.1. Data Storage And Management

Consumers:
Must be able to download stored data in bulk
May be able to access stored data through a REST API

Publishers:
Must be able to create new data resources.
Must be able to replace or update existing data resources.

Administrators:
Must be able to manage permissions for other administrators and publishers

2. The subscribe functionality

In order to provide a better accessibility of data to the user, we can allow them to select any option among daily, monthly and weekly, save the option chosen in the database and send mail to them according to the choice made, from the date of subscription.

3. Review of Existing Work

Presently, either the organization maintained all its insights using Google analytics or any alternative analytical tools. These tools are fine till you don’t have very large data or your website is not providing too many features that it becomes difficult to handle, but if your data grows to a large extend, it becomes annoying with the limit of how many goals you can create within it. Moreover, most of the analytical tool, including Google keeps track of our website data, dishonoring the “Cookie Law”, which describes in detail how you must inform your visitors of cookies being used. Also upgrading to analytics premium is insanely expensive, so organizations are slowly moving towards the concept of open data. In fact, this concept is utilized by government of many countries like United States of America, Germany, United Kingdom, Canada and Kenya to name a few.

4. Security Aspect

SSL with Express and Node.js: SSL (Secure Socket layer) is a standard security technology for establishing an encrypted link between a server and a client—typically a web server (website) and a browser, or a mail server and a mail client. Moreover, the administrator must be able to manage permissions for other administrators and publishers. An administrator must also be able to disable consumer accounts.

5. Scope of Work

This data portal provides instant extendibility with synchronous communication and will be based on the service oriented architecture (SOA), which uses the RESTful services and JavaScript Object Notation (JSON) standard for data storage and representation so that data can be transferred in a form that is human readable.

The uniform interface in such implementation is obtained through HTTP verb or methods: POST, GET, PUT, DELETE, which defines a CRUD (Create, Retrieve, Update, Delete) interface for any REST resource. Resources are identified by means of URIs which provide with syntax to build unique identifiers.
6. Conclusion and Future Work

A notification engine will be developed which will invoke a CTA (Call to Action). Based on the choice made by the user for notification, a notification will be sent. It can be both application based and browser based for desktop.

7. Acknowledgment

I would like to thank Dr. B. K. Sarkar for his expert advice and encouragement throughout this project and his brilliance in lab.

8. References

