Place Based Social Networking

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Abstract—**Social Network has influenced the life of People by understanding user's behaviors andlocation history. Place based Social Networking provides a new platform to understand preference awarerecommendation system that offers a particular user a set of venues or places within ageospatial range. User's Personal preferences about the place can be learned from his history ofactivity on the website. This recommendation system can facilitate people's travel not only neartheir living area but also to a city that is new to them. We system would be using large-scale realdataset collected from Foursquare. This data will help about the place that they own and would liketo follow. We present a new approach, known as user-centered collaborative location and activityfiltering, to pull many users' data together and apply collaborative filtering to find like-mindedusers and like-patterned activities at different locations. The project would make user aware of theinformation that they need regarding a Business place or any other interesting place.**

IndexTerms— Hyper text Markup Language (HTML), Cascading style sheet (CSS), My Structural Query Language(MySQL), Graphical User Interface (GUI),Hypertext Preprocessor (PHP).

I. INTRODUCTION

A person will create his own account on the website through the Google, Facebook,Twitter or Email account.When user will enter in his profile he can create profile of any place, connection. User can perform four Posting activities and six types of activities on contents on which user have posted .These activities are on the feed page. After the feed page user will redirect to the three kinds of profiles. 1) People Profile 2) Place profile 3) Connection (interest) profile.

User then does the above mentioned posts activities and contents activities with these profiles. Person living in the place is called as the owner of the place and the person who wants to know about the place is called as the follower of the place. Owner place has full rights to put all the information about the place. Hecan also add all additional features about the place When the follower posts something on the place then these content also comes on profile of owner of the place.User can do the followings four posts Activities:

1.Broadcast(detail)

2.Expression(Title +Detail)

3.Photo

4.Question/Answer(Title +Detail)

When user will do these activities on these profiles then it can also do other six activities on the contents which he has posted. These 6 content activities are as follows:

1.PopUp(Promote)

2.Tagging or Sharing

3.Reward back

4.Comment

5.Comment Up vote / Down vote

6.Report Inappropriate

User can upload the currents updates of that place, connection. Follower of the place can view the information of the place which is uploaded about that
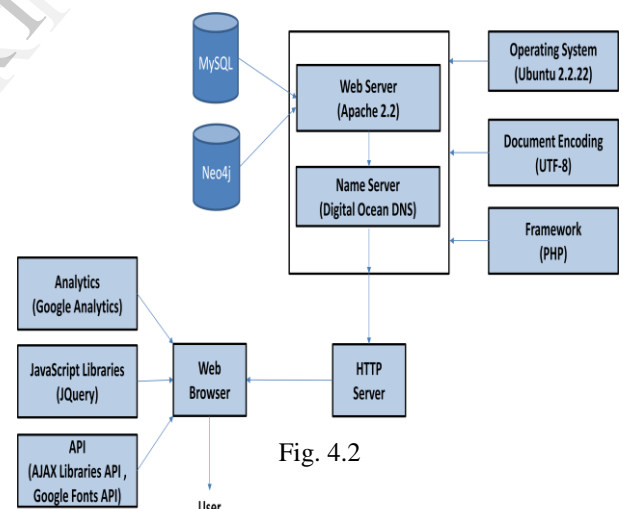
Architectural Diagram:

Fig. 4.2

Architectural Diagram for Places based social networking
Architectural Diagram Detail:
Architectural diagram of a system describes the technology used in the system and the communication between these technologies. Earlier mentioned technologies in above diagram gives component of our system, which are explain below:

1. Front end technology stack:
- Web browser: Web browserwill help our user to browse the web site and will behave like client.

- Analytics: We are using Google Analytics to analysis user's behavior we are collecting information such as Clients machine type, type of browser and screen resolution. So that in future we can provide better facility to our users.

- JQuery: JQuery is JavaScript library, and we are using it to compensate the difference in execution style of different browsers. It has also provided various functionalities which we can execute with ease.Query is a fast, concise, JavaScript Library that simplifies how you traverse HTML documents, handle events, perform animations, and add Ajax interactions to your web pages. JQuery is designed to change the way that you write JavaScript.

- API: Our project uses Ajax Library to fetch asynchronous request between browser and clients which gives dynamicity to the webpage. We also use Google font API to integrate different font style which is not present in user's machine.The AJAX Libraries API is a content distribution network and loading architecture for the most popular, open source JavaScript libraries.

2. Back end technology stack:

- Operating system: Our project willuse Ubuntu Operating system for hosting the files, which is by default provided by Digital ocean DNS providers.

- Document Encoding: UTF-8 (8-bit UCS/Unicode Transformation Format) is a variable-length character encoding for Unicode. It is the preferred encoding for web pages.

- Framework: PHP is a widely-used general-purpose scripting language that is especially suited for Web development and can be embedded into HTML.

- Web Server:Apache has been the most popular web server on the Internet since April 1996. We have used it to host our website on server.

- Name server:Our project will require DNS server which provide facility to run Neo4j database. Therefore we have used Digital Ocean services.

- MySQL Database: MySQL will contain tables formatted in rows and columns basis. It will store our user's information and users generated data.

- Neo4j: Neo4j will contain nodes of the content and all the algorithm works on this database. A single node in neo4j will be connected to many other nodes. Connection between these nodes will represent the relation between two entities It is graph based database.

II. RELATED WORK

Here we have created the project is to introduce an easy way to get the collective information about the unknown place.Places includes all types of locations such as institutions, railway stations, shopping malls, theaters ,industries, cities ,states, providences, states, countries and so on. Another special feature about out site is we are creating hierarchy of the places so that it's easy to search the place in the hierarchy and getting its photographs and current updates about that place so that user can visit that place with no difficulty. User can easily upload his views about the place and follower can easily follow it. The railway stations and all other such important places are covered and we can get to know about these places.

III. STRATEGY

A program running on the PHP installed PC will process the PHP file utilizing the power of MySQL and convert it into meaningful html file which will be send to browser, Brower interprets html document and render this content on the browser. To make UI interactive JavaScript and JQuery properties will be used, which will be interpreted by the JavaScript engine. CSS will play major role in making document easy to visualize. We make use of two additional useful facts:

1.PHP will make document dynamic utilizing the power of MySQL. But as we know that PHP can't be interpreted by browser therefore we install PHP software on server PC. This sends the PHP content in the form of html file.

2. Browser will be required to render the front end webpage to satisfy the need of customer. But it should be noted that different browser utilizes different rendering engines therefore the code should be checked on all the major browsers like IE, Firefox, and Chrome.

1. PHP
   - Make dynamic webpage
   - Apply preprocessing
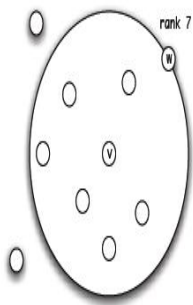   - Detect and validate data
2. MySQL
   - Generate tables to store data
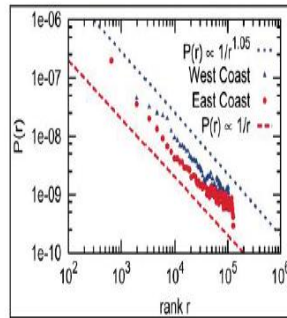   - Stores the data for future use.
3. Graphical User Interface
   - JavaScript, JQuery and CSS plays major role
   - Depends on browser rendering engine

IV. ALGORITHM

6.1 MATHEMATICAL MODEL FOR SOCIAL NETWORK:

Locations based
on rank

Social network graph

Overview Diagram of Rank-based friendship

Rank-based friendship: rank of w with respect to v is number ofpeoplex such that:d (v, x) <d (v,w).

- Decentralized search with (essentially) arbitrary populationdensity, when link probability proportional to rank -B.
- Efficient routing when B= 1, i.e. 1/rank.
- Generalization of lattice result (diff. from set systems).

A. Abbreviations, Acronyms and Definitions:

API: -   API is a particular set of rules and specifications that a software program can follow to access and make use of services and resources provided by another particular software programs that implements that API.

HTTP:-

It refers to Hypertext Transfer Protocol. It is the web's application layer protocol and is at the heart of the web. It is implemented in two programs.

Neo4J Database:

Neo4j is an open-sourcegraph database, implemented in Java. The developers describe Neo4j as "embedded, disk-based, fully transactional Java persistence engine that stores data structured in graphs rather than in tables". Neo4j is the most popular graph database.

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V. CONCLUSION

Thus by making a place based social networking we created website for people, through which they can learn about places they are interested in and will have all the current information about that place. And also provide preference aware recommendation system that offers a particular user a set of venues or places within a geospatial range. Its user friendly website we have made it easy for people to find new interesting places. Also by providing places hierarchy we will able to reach the vast population of world.

VI. ACKNOWLEDGEMENT

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