Knowledge Discovery and Management
Project Phase – II Report

By

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Blogger Locale

Introduction:

  Blogger Locale is an online blog which provides a smart way of posting articles, promotions, questions and all types of software related enquiries. Latest technological improvements, new ideas can be shared with different people. People can get aware of social issues; new languages can be others.

  Human right groups, NGOs needs a medium to interact with the people to create social awareness of a social cause, our bog will help them to reach huge number of people online. One can use our blog to communicate with their friends and families. People will use to have fun and to be creative.

Project Goals and Objectives:

  Here in our project we are going to design a blog which helps the people to share their knowledge. Our main objective is to make it more user friendly by inclusion of some interesting NLPs which will help the people to raise the questions from the already available ones. People can filter they needs based on the tags we provide.

  Users can register themselves and can customize their profiles according to their interests. People can comment on the post already been online and can get feedback for that.

We are going to use most popular framework, bootstrap to implement HTML, CSS and JS for developing responsive, mobile first projects on the web i.e., we can even operate this blog from the mobile devices, tablets which makes it more convenient.

Objectives:

1. Make it available both on we as well as on the mobile platforms.
2. Designing a better looking User Interface.
3. Usage of NLPs for suggestions to the user posts.

System Design:

  We are designing a three tier architecture which contains front end, business layer and database layer**.**

Front End:

  This layer provides and Graphical User Interface, through which the users can operate and can request for information and can visualize the results.
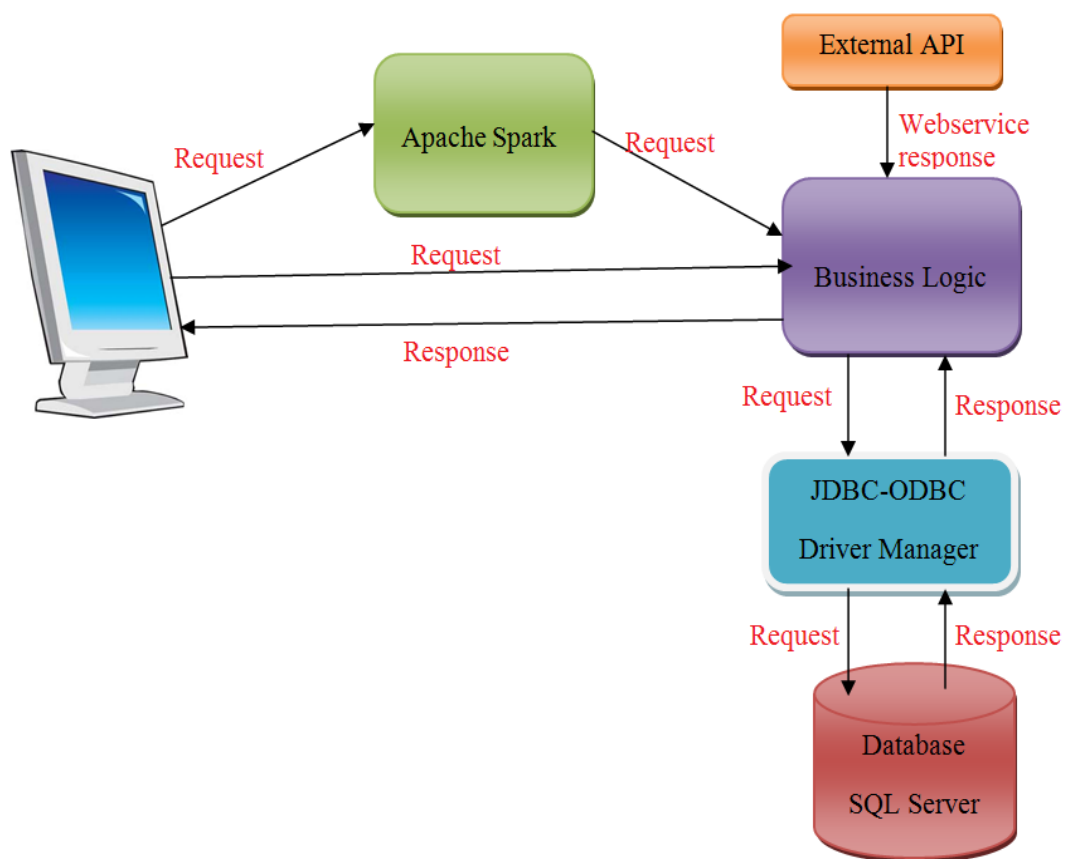
Business Layer:

This layer contains all the business logic and functionalities that validates, updates and control the data through and out of the database.
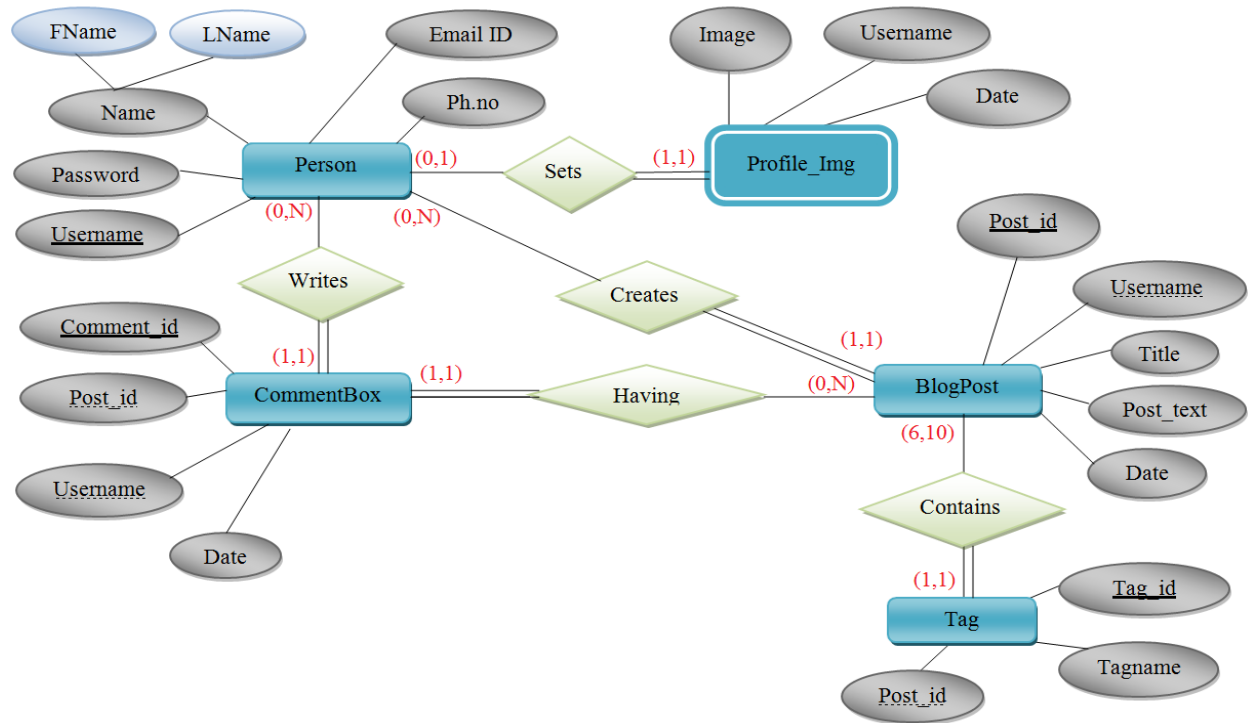
Database Layer:

This layer acts as a storage unit for the Blog which can store and retrieve data as per the request from the user and as per the commands from the business logic.
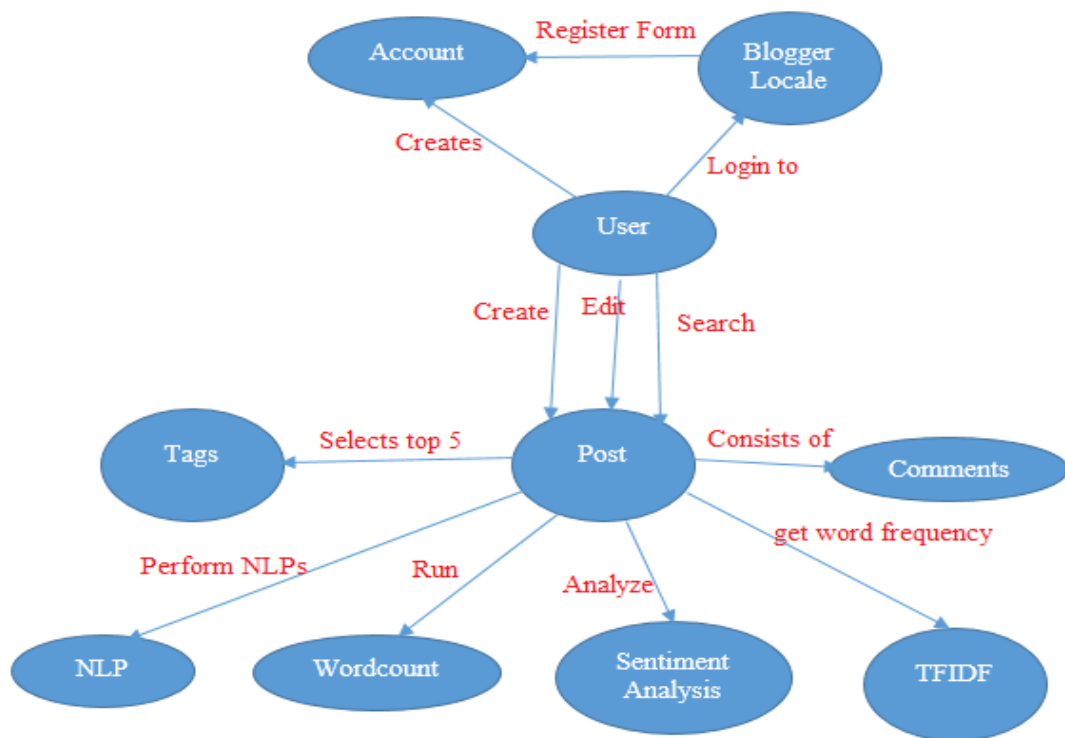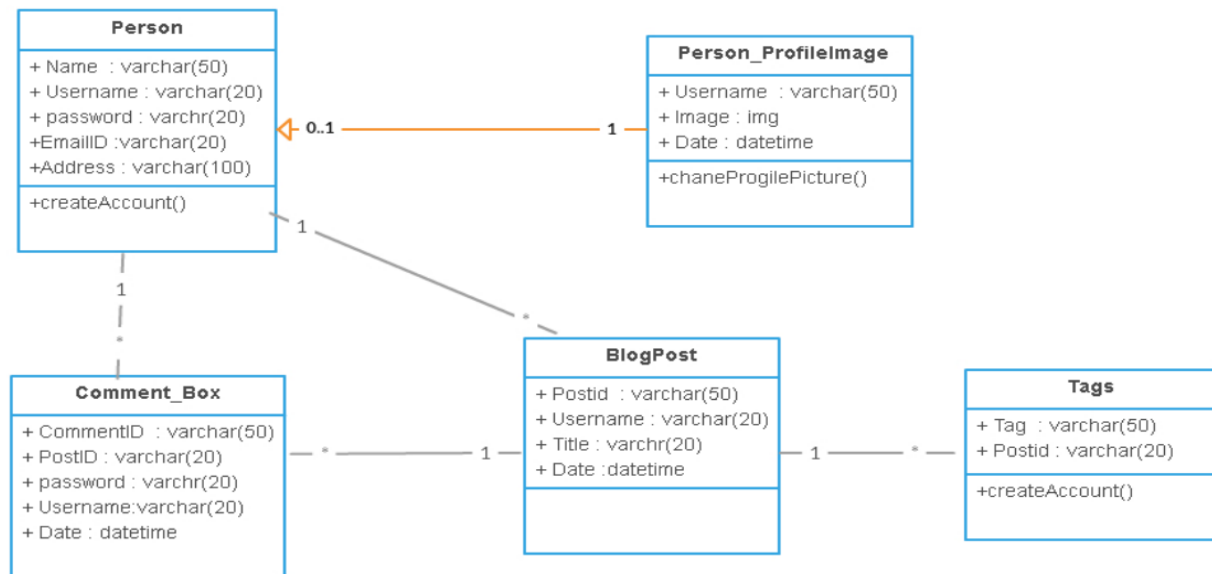
Architecture Diagram:

ER Diagram:

An entity-relationship diagram is a model representing the information system in the graphical form which shows the relationship between places, concepts, people, objects, or events within that system.

FName LName Email ID Image Username

Name Ph.no Date

Password Person (0,1) Sets (1,1) Profile_Img

(0,N) (0,N) Post_id

Username

Username

Comment_id Writes Creates Title

(1,1) (1,1) (0,N) Post_text

Post_id CommentBox Having BlogPost

Username (6,10) Date

Date Contains

(1,1) Tag_id

Tag

Post_id Tagname

Knowledge Graph:

Account — Register Form → Blogger Locale

Creates ↑ ↑ Login to

User

Create Edit Search

Selects top 5 ← Post — Consists of → Comments

Tags

get word frequency

Perform NLPs Run Analyze

NLP Wordcount Sentiment Analysis TFIDF

Class Diagram:

Person

+ Name : varchar(50)
+ Username : varchar(20)
+ password : varchr(20)
+EmailID :varchar(20)
+Address : varchar(100)

+createAccount()

Person_ProfileImage

+ Username : varchar(50)
+ Image : img
+ Date : datetime

+chaneProgilePicture()

0..1 —— 1

1

Comment_Box

+ CommentID : varchar(50)
+ PostID : varchar(20)
+ password : varchr(20)
+ Username:varchar(20)
+ Date : datetime

BlogPost

+ Postid : varchar(50)
+ Username : varchar(20)
+ Title : varchr(20)
+ Date :datetime

Tags

+ Tag : varchar(50)
+ Postid : varchar(20)

+createAccount()

1   *   1   1   *

Sequence Diagram:

Activity Diagram:
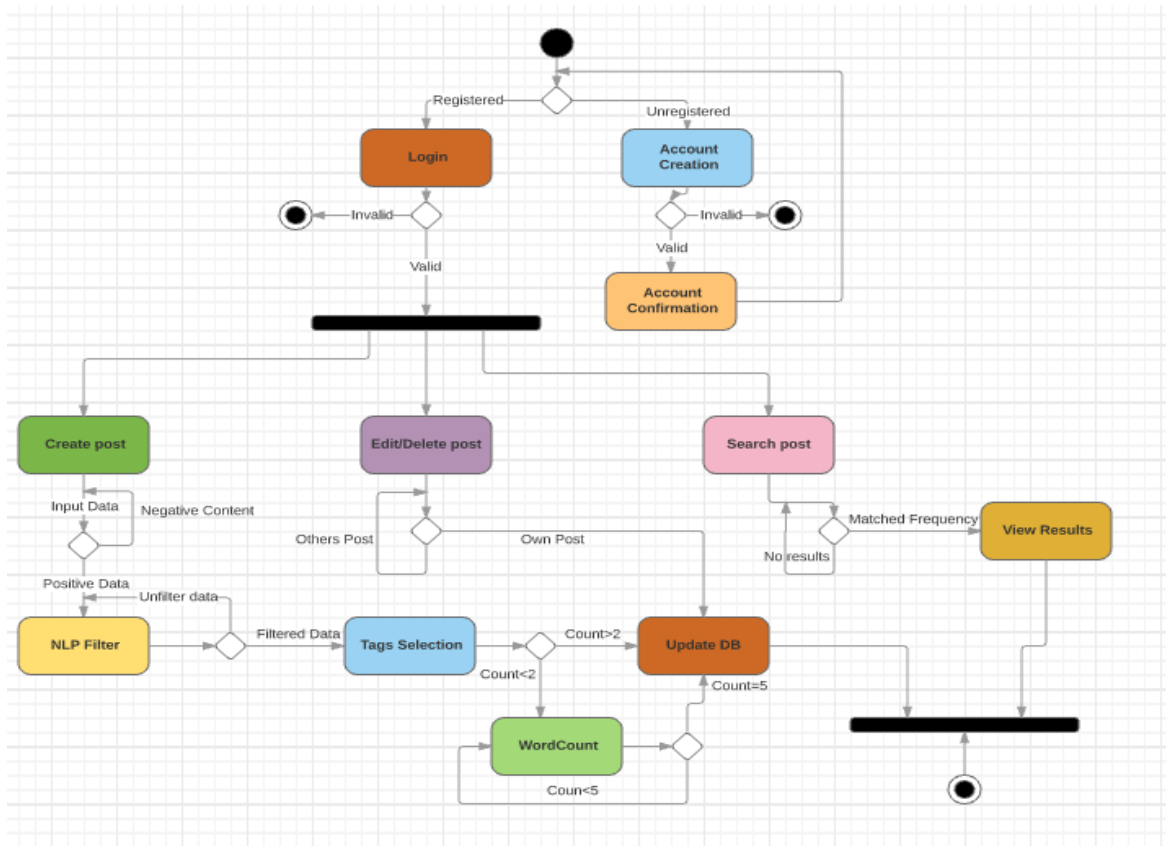
Work flow Diagram:
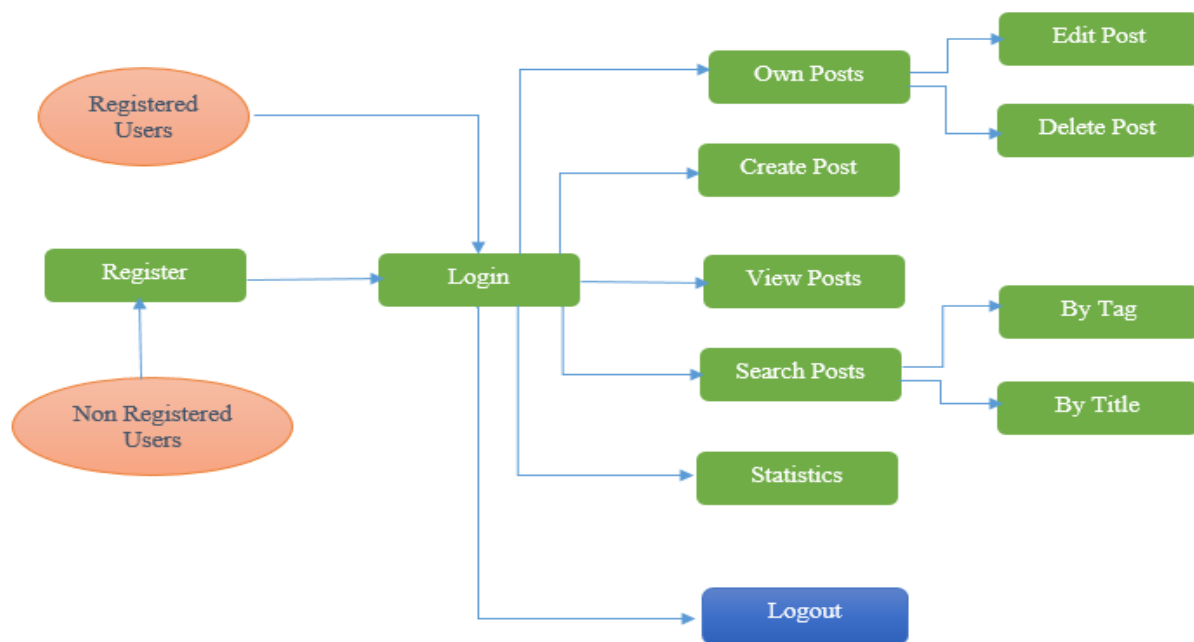
State Diagram:
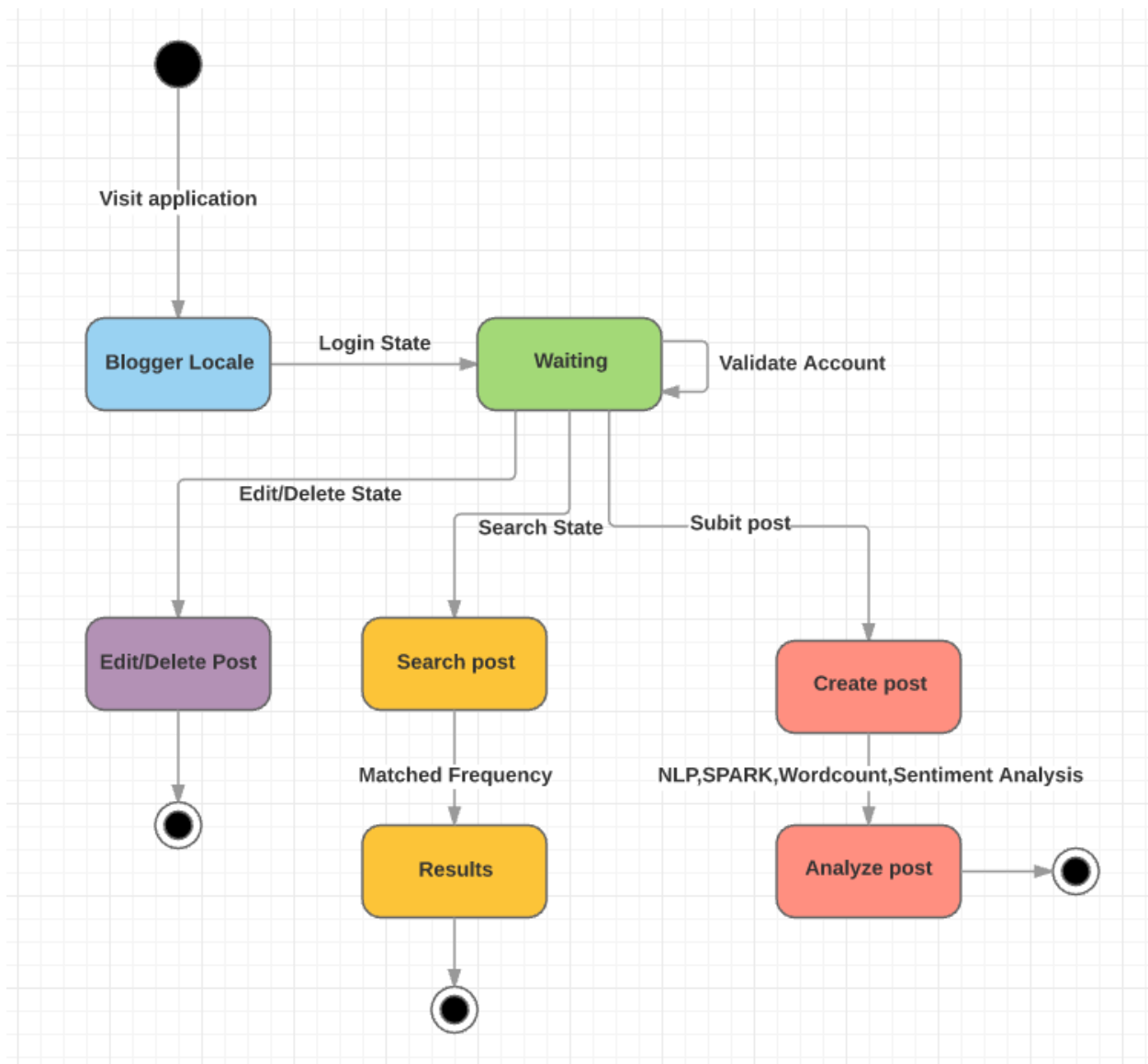
Technologies Being Used:

Front End   **:** Bootstrap, HTML, CSS, Jquery, Java Script.

Business Logic   **:** Java, Spark, JavaNLPs

Database   **:** MSSQL 2008

Tools   **:** Eclipse

Project Plan

Phase – I

1. Discussion of project Plan, requirements,
2. Requirements Review meeting
3. Designing class, UML, state and coming with an architecture diagram.
4. Design of web pages.
5. Form validations
6. Database integration
7. Functionalities
8. Analyzing a post by using sentimental analysis.

Phase -II

1. Inclusion of NLPs for Tag based search.
2. Inclusion of NLPs for showing the suggestions with machine learning from the data sets already available.
3. Wikipedia Search.
4. Google Search
5. Edit, delete or update post
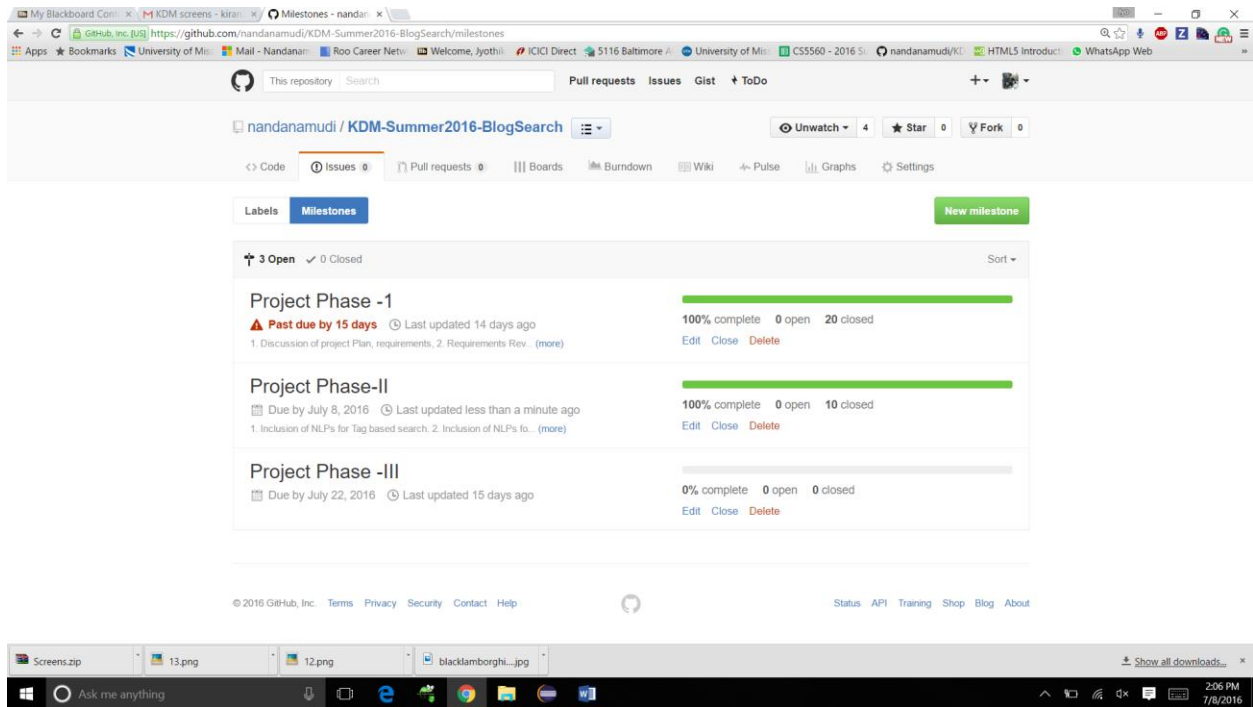
Phase - III

1. Hosting online.

Features of Our Project:

1. User account registration
2. Submission of post either by static or file upload or API
3. Usage of NLPs for Lemmatization and stop word removal.
4. Identification of tags using TF IDF NLP.
5. Inclusion of Word2vec NLP for tags of the post for filtering while searching for a post.
6. Suggestion of tags based on the existing data sets.
7. Intelligent search of posts from the existing data sets and searching online using Google API.
8. Wikipedia Search Engine for information while writing a post.
9. Google Search Engine for information while writing a post.
10. Edit, delete or update a post by using a filter of posts.
11. Comments on the post.
12. Statistics on post being posted daily.

Milestones:

Closed Issues for Phase – I:

Project Phase – I Burndown Chart:
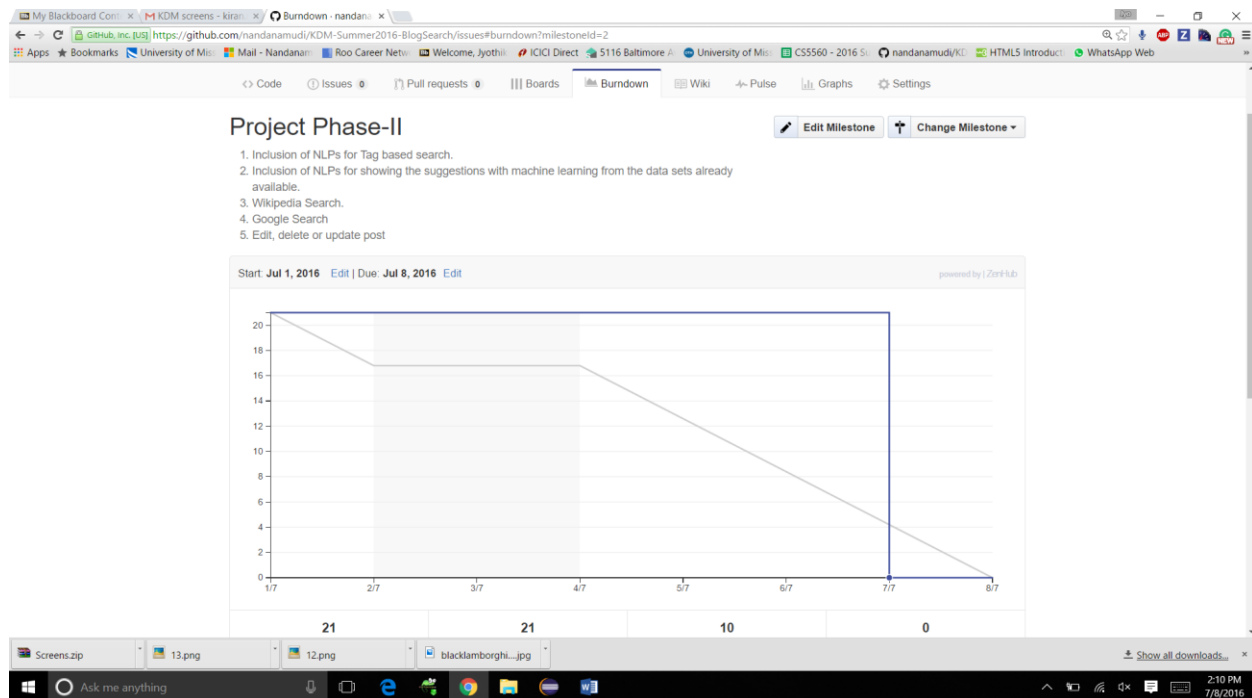
Project Management

Responsibilities:

- Discussing on API's implementation   - Whole team
- Implementation of Google API   - Ashok
- Implementation of Wikipedia Search API   - Jyothi Kiran
- Intelligence search within blog site to view post   - Pratap & Sai Tejaswi
- Implementation of spark wordcount, lemmentization, stopword removal, POS for dividing tags and saved to database   - Ashok & Jyothi Kiran
- Inclusion option for edit post details   - Sai Tejaswi
- Delete post details based on search   - Pratap
- Statistics on posting posts on each date   - Ashok
- Public search without actual login   - Jyothi Kiran
- comments on posts   - Pratap, Sai Tejaswi

Time taken: 84 Hrs
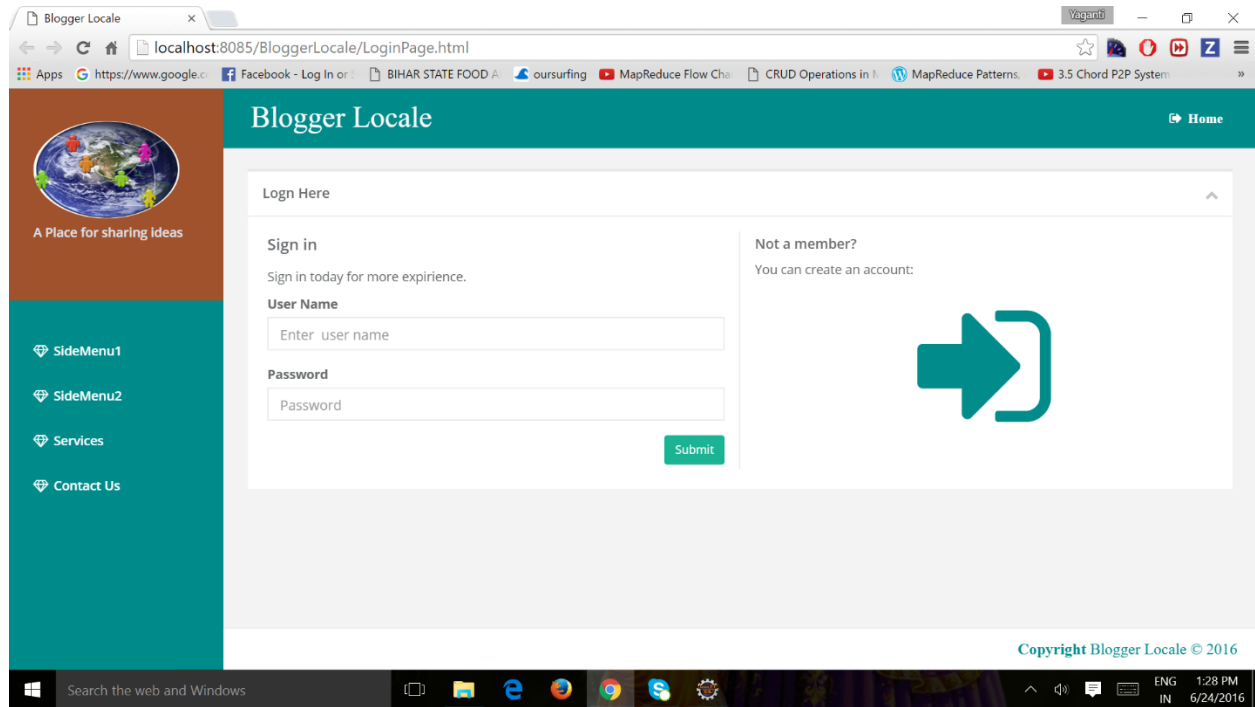
Contributions:

1. Ashok Yaganti   - 25%
2. Jyothi Kiran Nandanamudi   - 25%
3. Sai Tejaswi Pullela   - 25%
4. Pratap Rao Kadari   - 25%

Results:
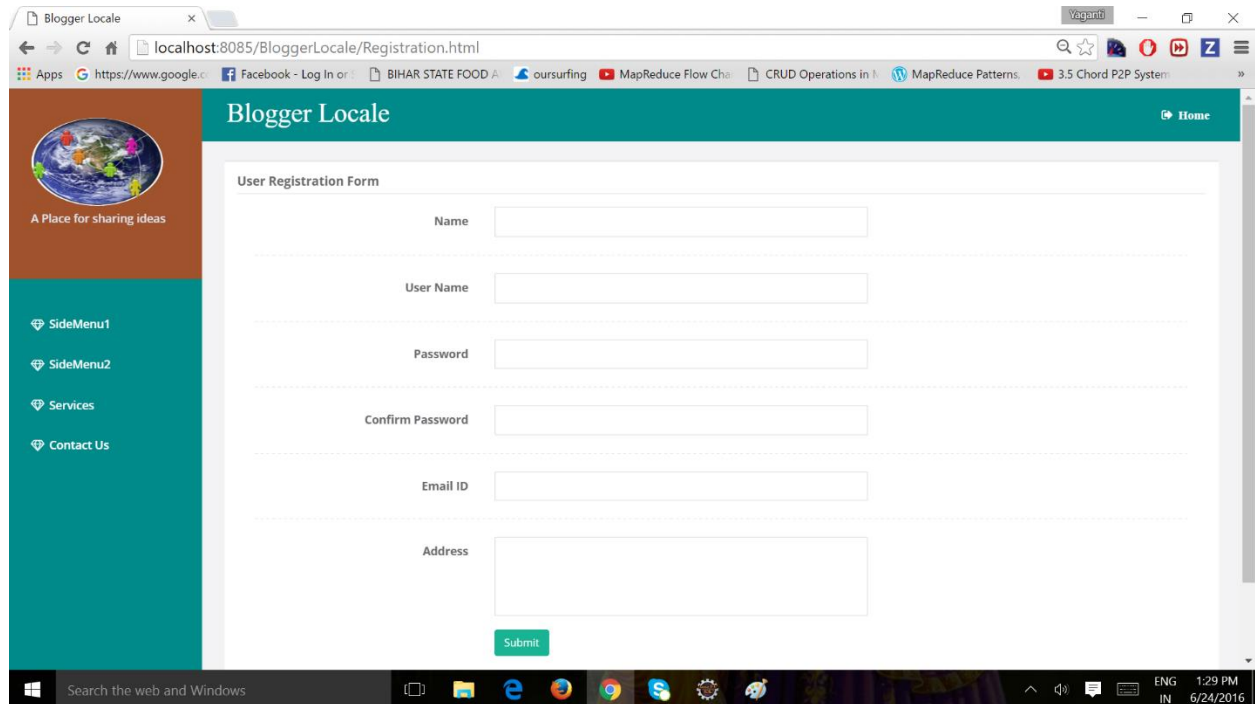
User Interface:

Login Page: User Can Login from Here

Register Page: User Can Register and can personalize his blog account

Post Submission: User can submit post after satisfaction with the content
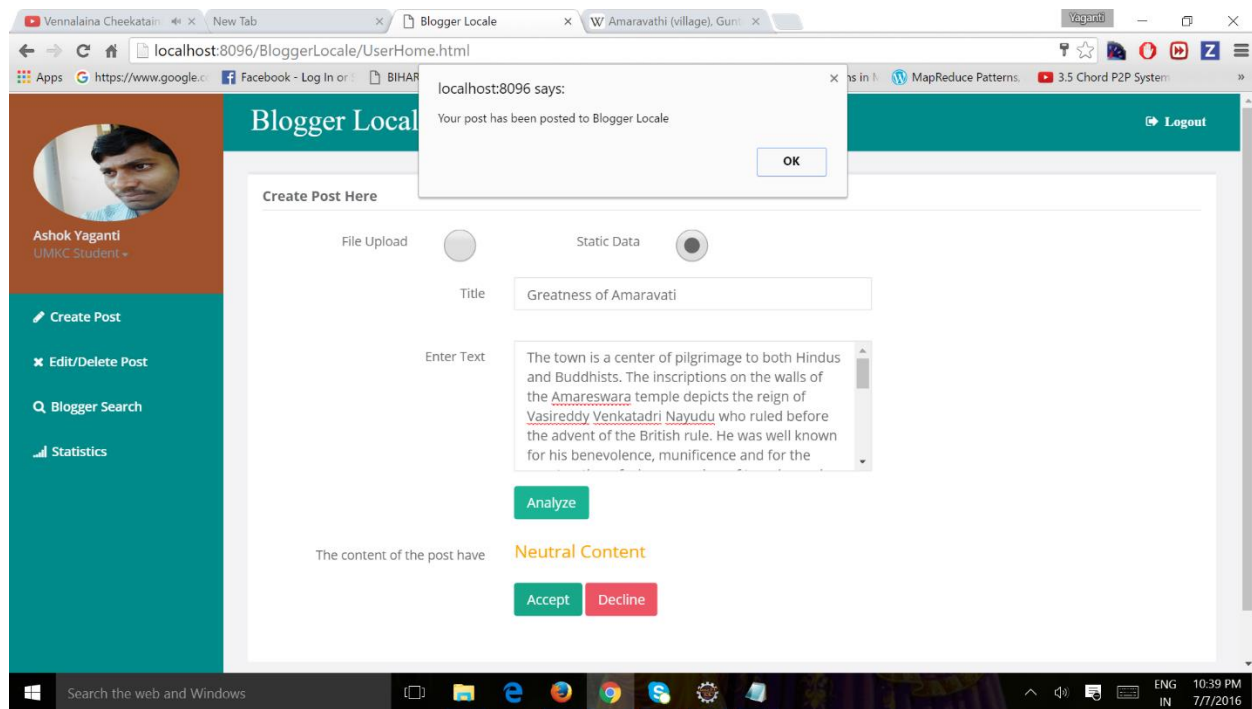
Search Based On Tags: Search posts, already posted based on title, tags & post.
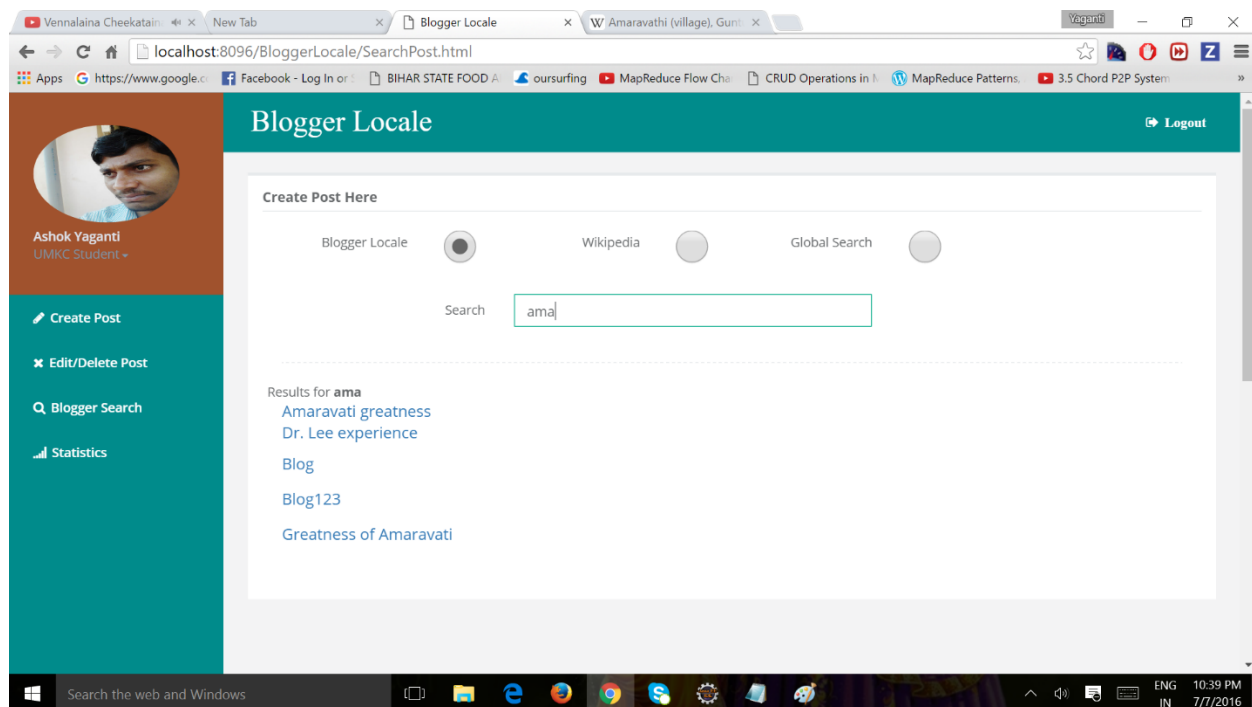
Wikipedia Search: Search Wikipedia for information while writing a post

Google Search: Search google for information while writing a post

Edit or Delete Post: Edit or delete post already posted based on the search.
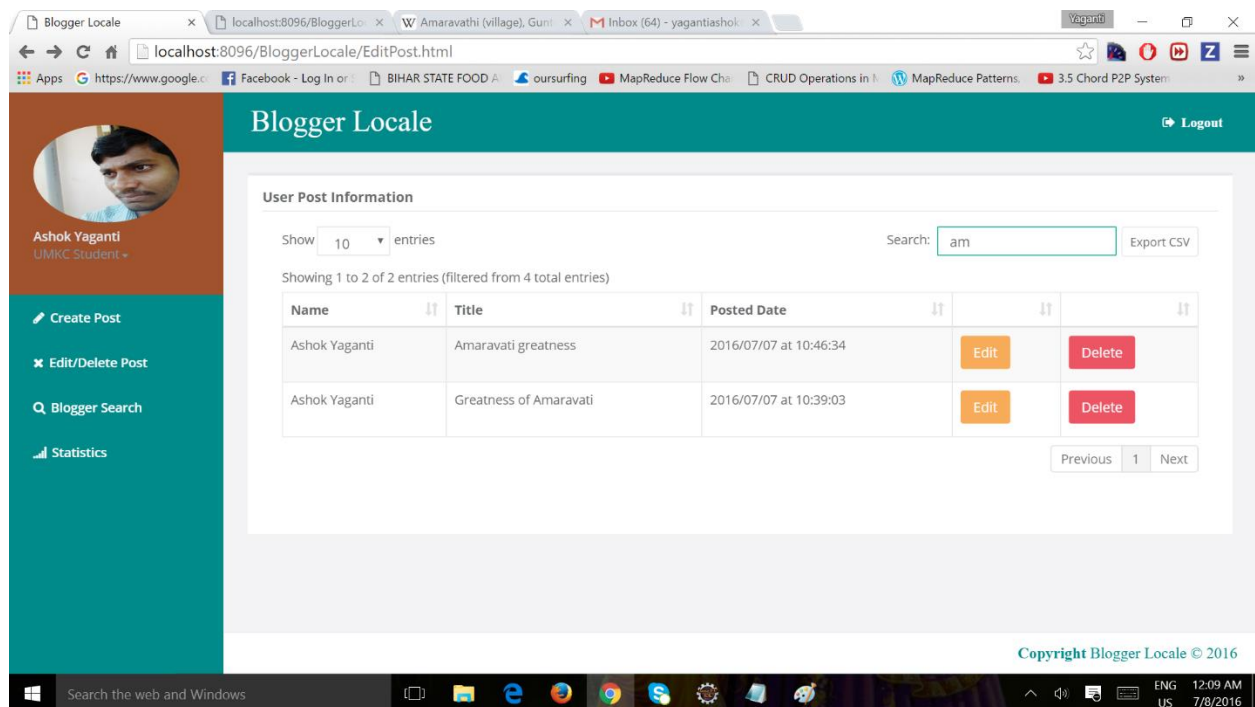
Search Based on Title: User can search based on the title, tags for editing or deleting.
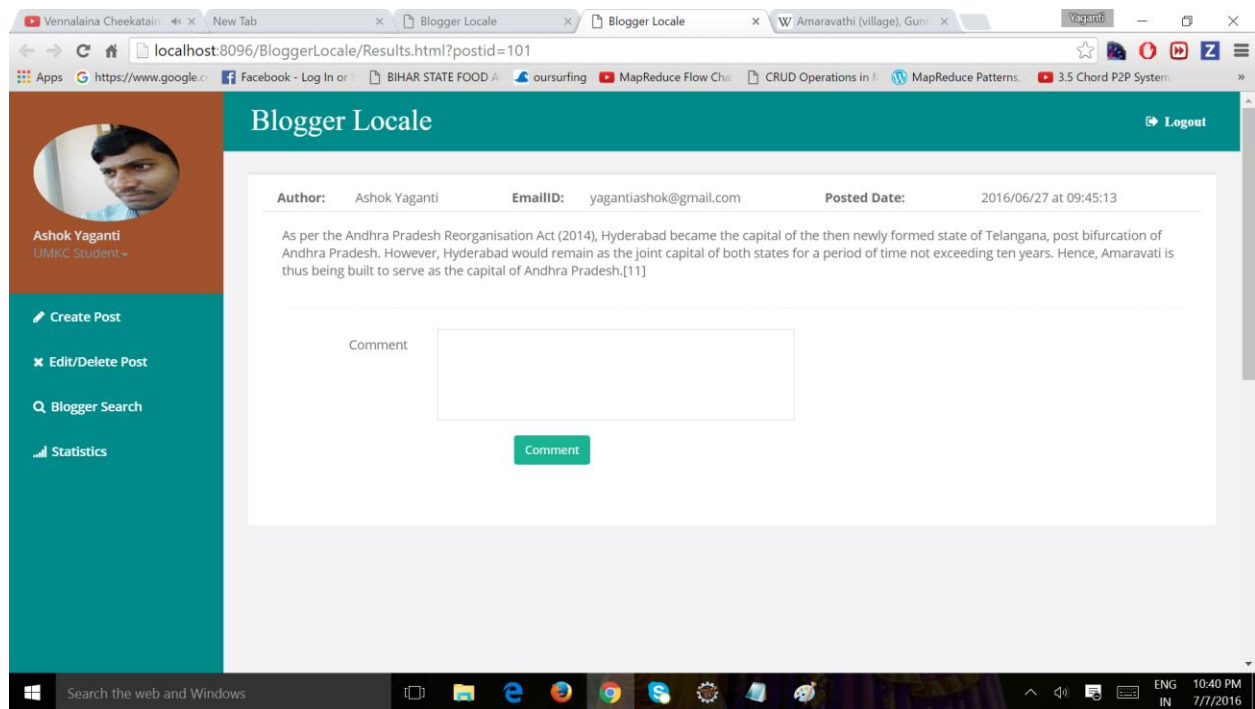
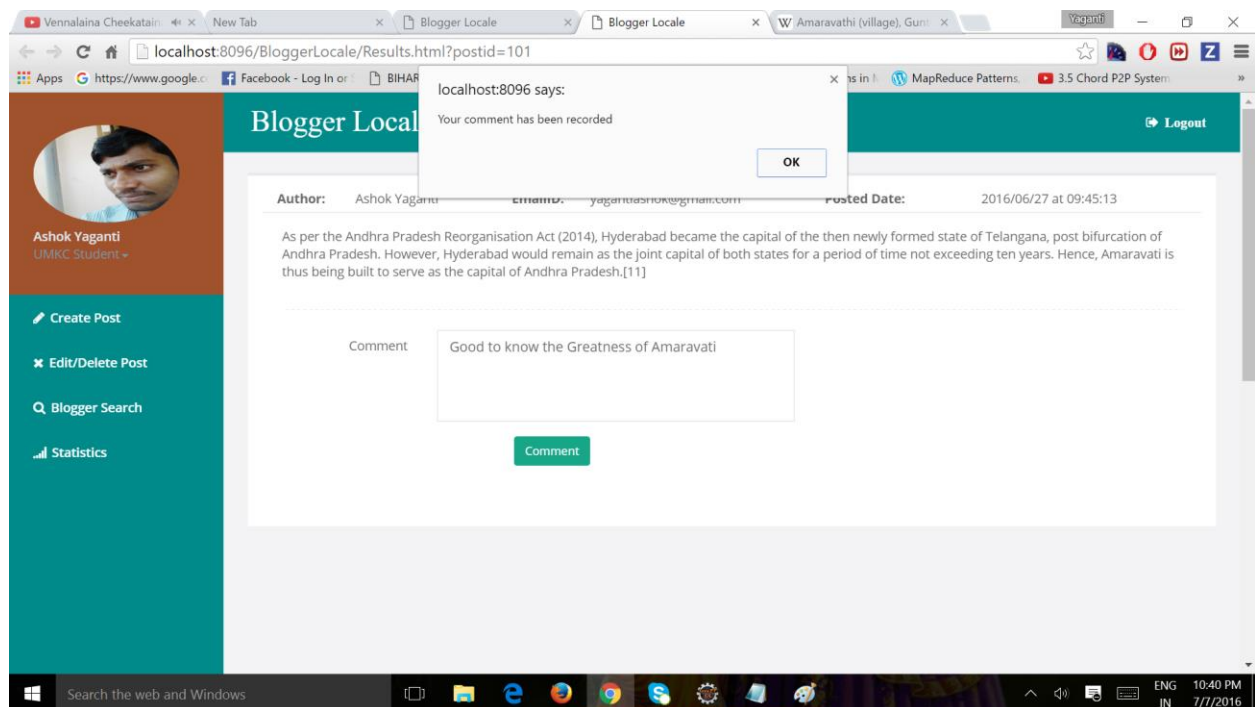**Update Post:** Update post which is already posted.
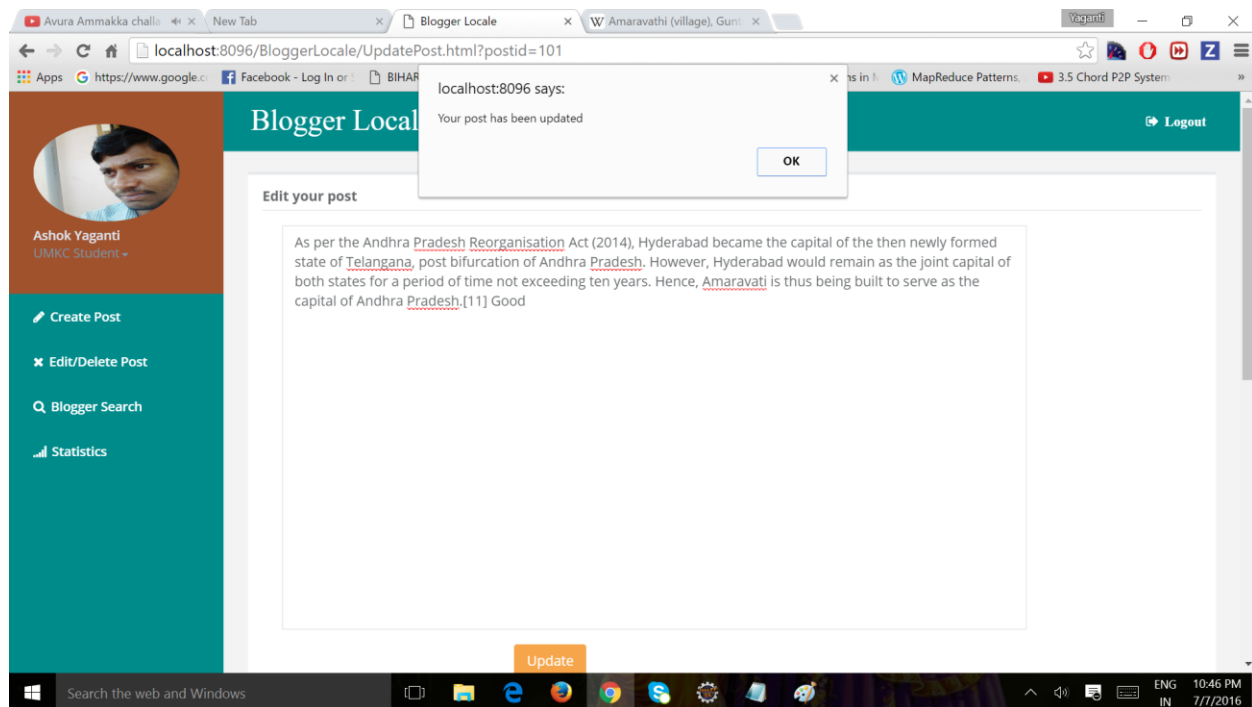
Delete Post: Delete post which is already posted.
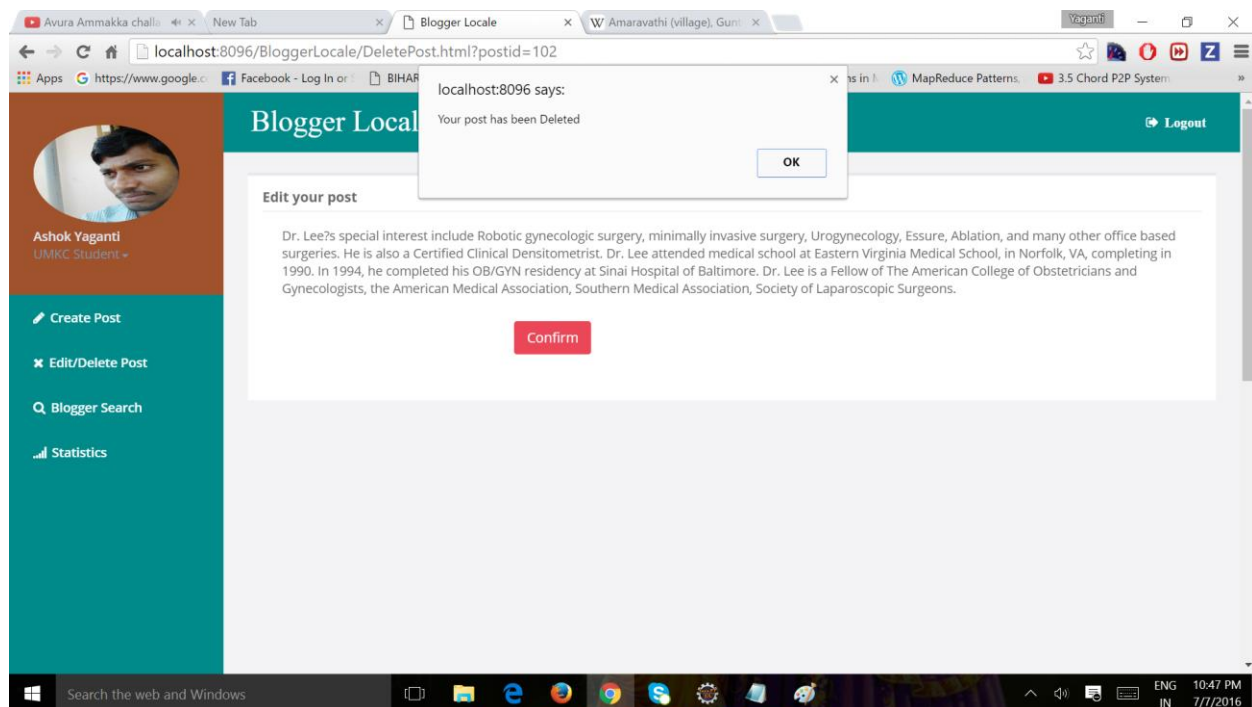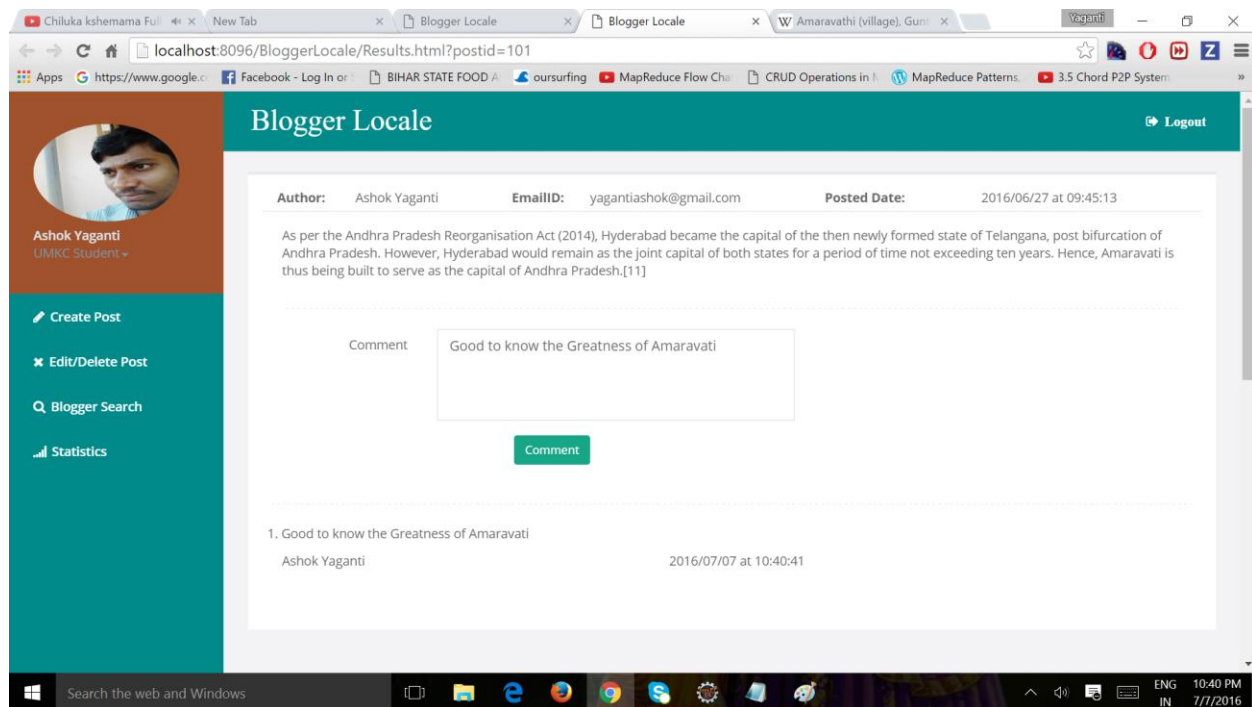
Comment Box: Comment box for comments on post.

Commenting on the post: Comment submission.

Comments on the post: You can view all the comments on the post.

Bibliography:

- http://nlp.stanford.edu/software/lex-parser.shtml
- http://getbootstrap.com/css/
- http://spark.apache.org/examples.html
- http://datascience.stackexchange.com/questions/9785/predicting-a-word-using-word2vec-model
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