Project Report

DBMS

"News4You"

Made by: Apoorv Tomar

Raj Shekhar Kumar

Overview

1. Description

2. Database Design
   a) ER Diagram
   b) Relation Tables
   c) Snapshot of Tuples in tables
   d) Constraints Used
   e) Indexing and triggers

3. DML Statements-Snapshots of UI

4. Future scope of the project

Description

News4You is a news aggregator website i.e. it collects news from various news aggregating platform (through their REST API.) and displays it on the website.

Features:

1) It provides its users a single platform which displays news from various Media sources in Real time.

2) It offers Diverse News content to its Users. Users can view World, Business, Sports, Technology And Entertainment news.

3) News may include articles, videos etc.

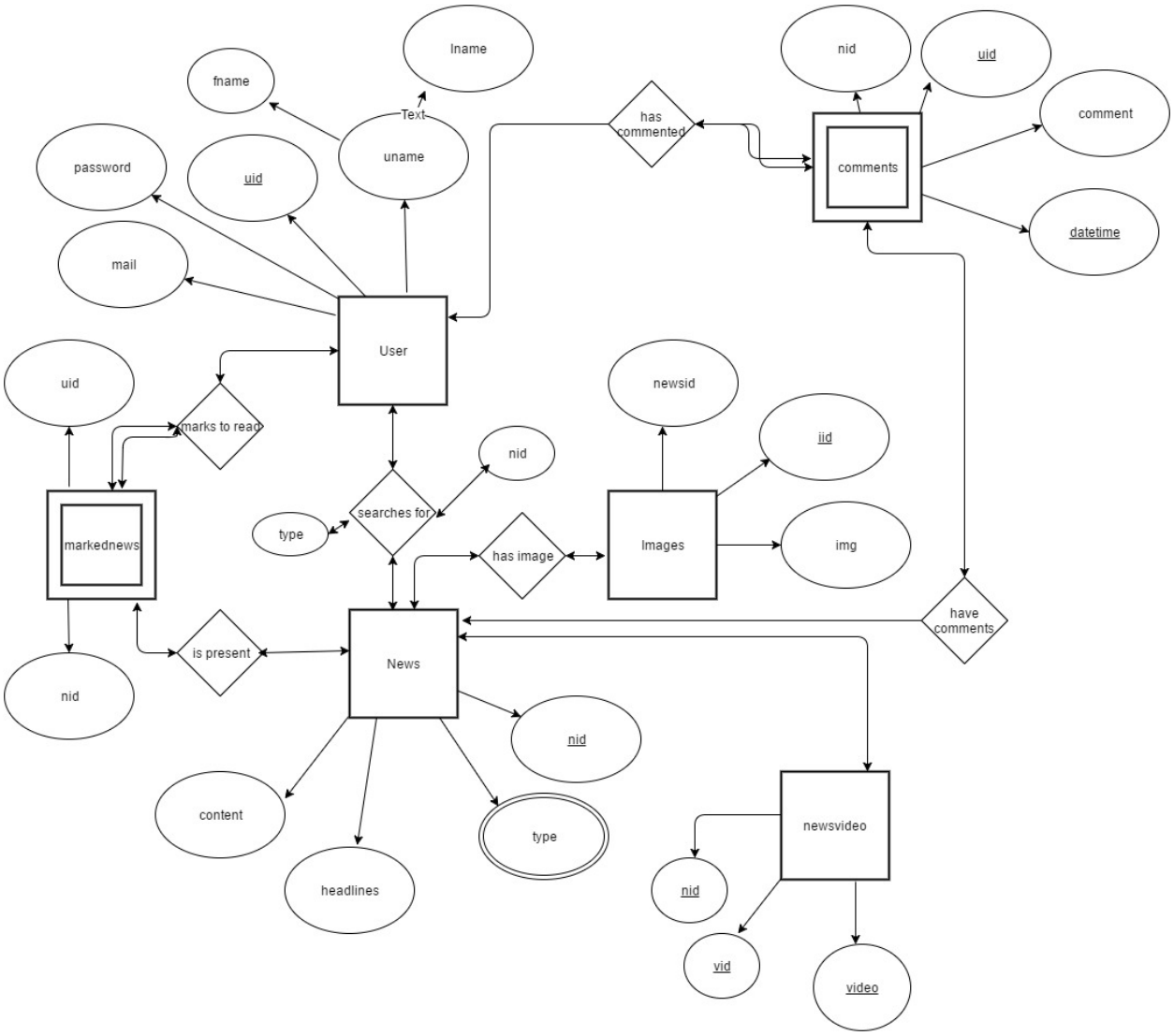
4) Users can also interact with other users by commenting on news posts. They can share their opinion, debate etc in the comment section of each news post.
They can even comment as "Anonymous" to protect their privacy.

5) User can also mark news to read the post later.

Database Design

A) ER Diagram

Entity Relationship Diagram



B) Relation tables

Users

Uid	Uname	Fname	Lname	Password	Mail	Authkey	status

news

Nid	date	Headlines	Content

comments

Nid	Uid	Datetime

marked_news

Uid	nid

images

Newsid	Iid	image

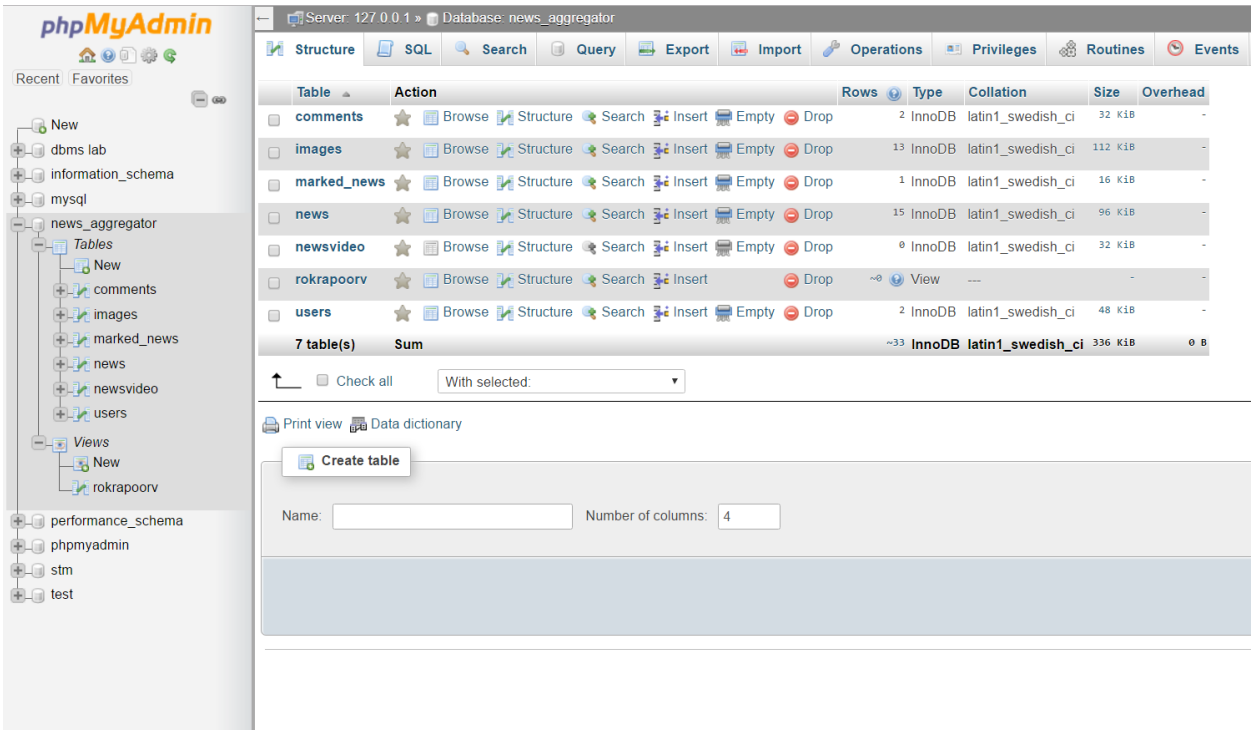
Newsvideo

Nid	Vid	Video

Log

Timestamp	Action

C) NewsAggregator DATABASE



PRIMARY TABLES

+ Options

	uid	fname	lname	email	username	password	auth_key	active_status
Edit Copy Delete	1	Apoorv	Tomar	apoorv.tomar95@gmail.com	rokrapoorv	97384261b8bbf966df16e5ad509922db	0	1
Edit Copy Delete	2	Raj	Kumar	kmrrajj@gmail.com	Rajjo	32250170a0dca92d53ec9624f336ca24	0	1

Check all With selected: Edit Copy Delete Export

Users: It is the primary table which is used for storing credentials of users.

+ Options

	nid	type	date	content	headlines
Edit Copy Delete	1	World	2016-10-23	ALEPPO: Heavy clashes erupted between regime and r...	Clashes, artillery fire hit Aleppo after truce exp...
Edit Copy Delete	2	World	2016-10-23	QAYYARAH, IRAQ: Toxic fumes released when IS milit...	Fumes from IS-torched sulphur plant near Mosul kil...
Edit Copy Delete	3	World	2016-10-23	CLEVELAND: Donald Trump says he will win the Novem...	Trump says he will win general elections
Edit Copy Delete	4	Tech	2016-10-23	Athough Samsung's Galaxy line-up of smartphones is...	SAMSUNG GALAXY J7 PRIME
Edit Copy Delete	5	Tech	2016-10-23	In what has been termed one of the biggest data br...	Over 30 lakh debit cards hacked in India: 15 lates...
Edit Copy Delete	6	Tech	2016-10-23	BENGALURU: In maker spaces across the country, peo...	Tinkering goes high tech
Edit Copy Delete	7	Business	2016-10-23	NEW DELHI: Country's largest car maker Maruti Suzu...	Six Maruti models in top ten list in first half of...
Edit Copy Delete	8	Business	2016-10-23	INDORE: Individuals and entities can pay taxes onl...	GST can be paid using debit, credit cards: Revenue...
Edit Copy Delete	9	Business	2016-10-23	INDORE: Taking a jab at Indian industry, Union fin...	Private players must catch up with govt: FM to Ind...
Edit Copy Delete	10	Sports	2016-10-23	MADRID: Lionel Messi's 94th-minute penalty moved B...	Messi penalty snatches thrilling Barcelona win
Edit Copy Delete	11	Sports	2016-10-23	The Supreme Court on Friday directed the BCCI to f...	After 3 years, funds crunch starting to hurt RCA
Edit Copy Delete	12	Sports	2016-10-23	While the business side of cricket normally plays ...	Indian cricket gets ready for its biggest pay pack...
Edit Copy Delete	13	Entertainment	2016-10-23	MUMBAI: The Raj Thackeray+ -led Maharashtra Navnir...	"Ae Dil" out of "mushkil" after promising tributes...
Edit Copy Delete	14	Entertainment	2016-10-23	Looks like Sonakshi Sinha is the new action girl o...	Sonakshi Sinha turns daredevil for 'Force 2'
Edit Copy Delete	15	Entertainment	2016-10-23	Hrithik Roshan's upcoming film 'Kaabil', produced ...	Hrithik Roshan heightens the 'Kaabil' mystery

Check all With selected: Edit Copy Delete Export

News: It is used for storing the content, headlines and type of the latest news.

+ Options

nid	name	cmt	datetme
1	Rajjo	test	2016-11-01 14:54:48
1	Anonymous	test 2	2016-11-15 15:27:57

Comments: This table is used for storing comments entered by users on a single news page.

+ Options

	username	nid
Edit Copy Delete	Rajjo	2
Edit Copy Delete	rokrapoorv	1

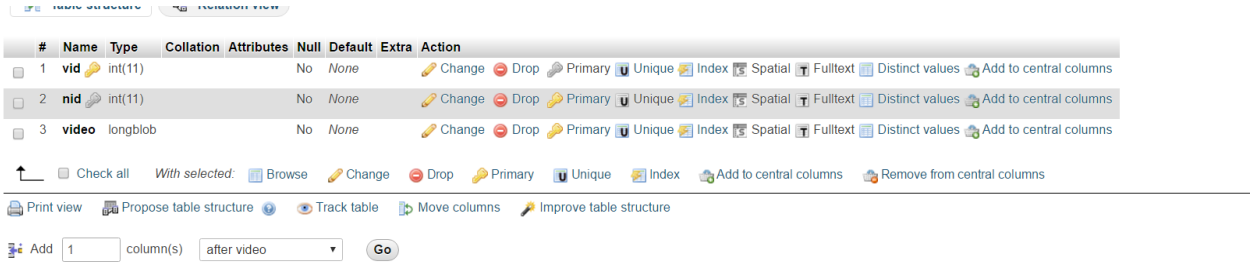
Marked news: This table is used for storing marked news (to be read later) by the user.

SECONDARY TABLES

+ Options

	iid	nid	img
Edit Copy Delete	1	1	[BLOB - 2.9 KiB]
Edit Copy Delete	2	2	[BLOB - 3 KiB]
Edit Copy Delete	3	3	[BLOB - 5 KiB]
Edit Copy Delete	4	4	[BLOB - 2.5 KiB]
Edit Copy Delete	5	5	[BLOB - 3.6 KiB]
Edit Copy Delete	7	7	[BLOB - 2 KiB]
Edit Copy Delete	8	8	[BLOB - 4.8 KiB]
Edit Copy Delete	9	9	[BLOB - 4.3 KiB]
Edit Copy Delete	10	10	[BLOB - 4.8 KiB]
Edit Copy Delete	11	11	[BLOB - 9.5 KiB]
Edit Copy Delete	12	12	[BLOB - 13.5 KiB]
Edit Copy Delete	14	14	[BLOB - 5.6 KiB]
Edit Copy Delete	15	15	[BLOB - 4.6 KiB]

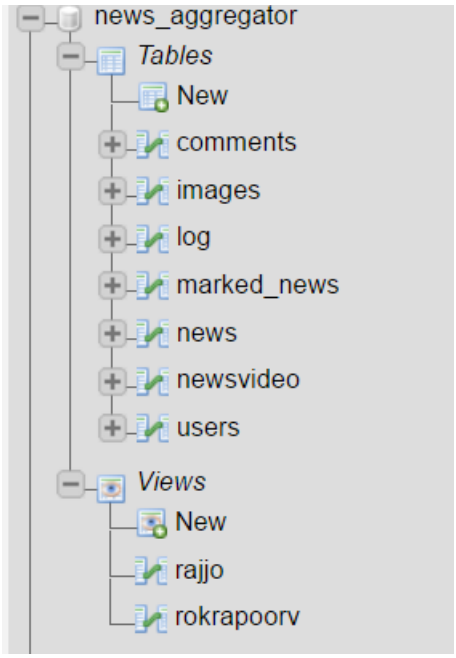
Images: It is used for storing the JPEG images of the corresponding news.



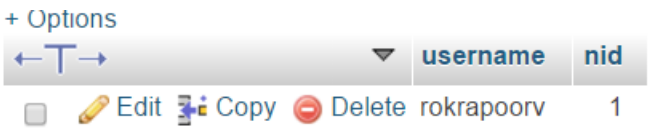
Newsvideo: It is used for storing news stream.

3)Views

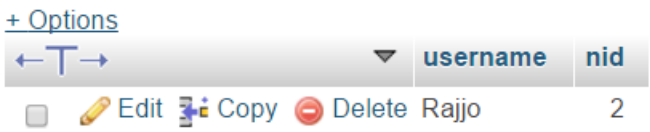
These are dynamically created views using PHP.



rokrapoorv



rajjo



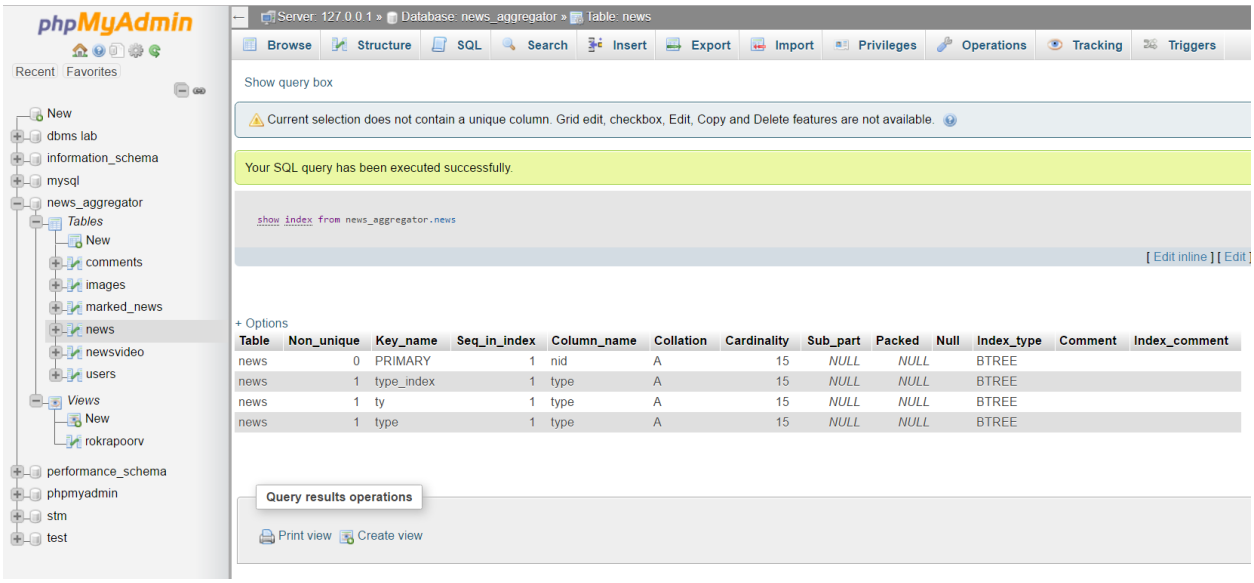
"username": Stores current snapshot of table 'Marked_news'.

D)CONSTRAINTS

Constraint name	ATTRIBUTES
PRIMARY	Uid,iid,nid,vid
UNIQUE	
NOT NULL	Fname,lname,uname,password,mail, nid,uid,iid,vid
FOREIGN KEY	Newsid
CHECK	cmt, (to check comment length less that 100)

->Indexing

For search operation



- Indexing is done on nid in news table.
- It is done to SELECT news content from ‘news’ table.

->Triggers

Triggers are used to create log entries whenever INSERT command is executed on tables *users*, *comments* & *marked news*.

Log TABLE

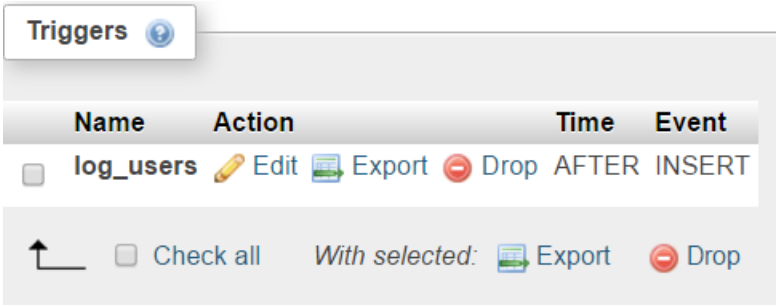
Whatever activities users are performing are logged into this table. This data can be analysed to find interests of users.

+ Options

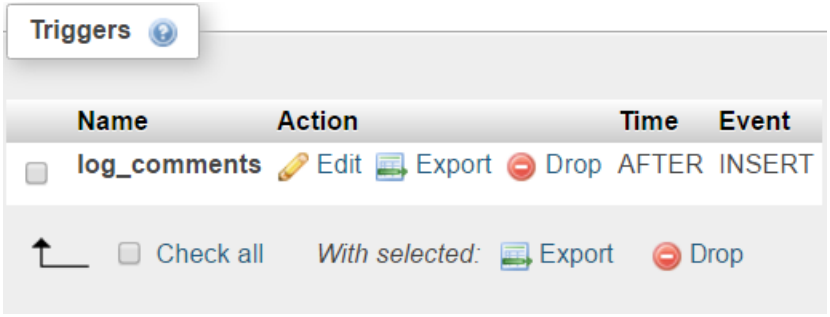
timestamp	action
2016-11-01 14:54:48	comment
2016-11-16 12:23:29	markednews

Triggers defined

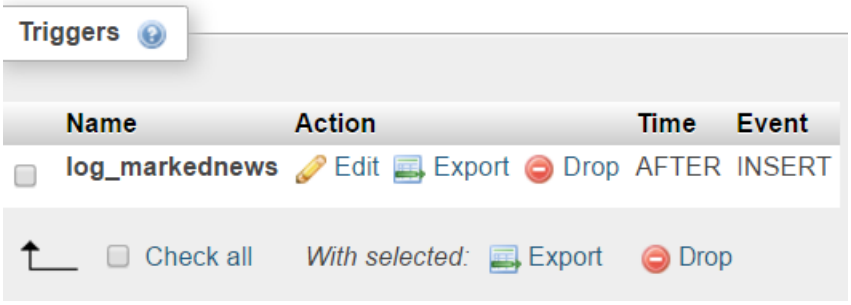
1) log_users



2) log_comments

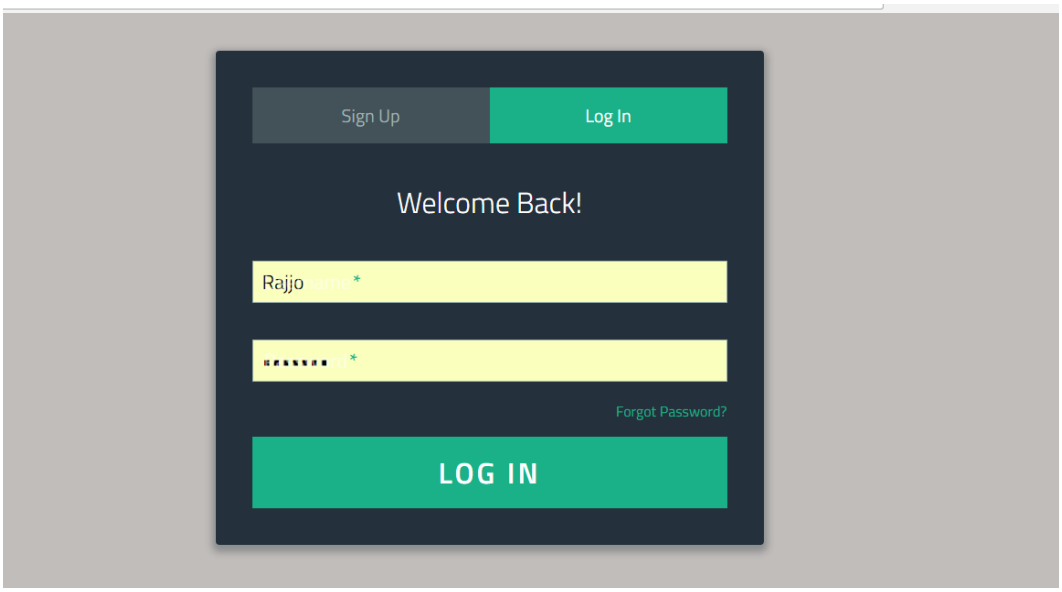


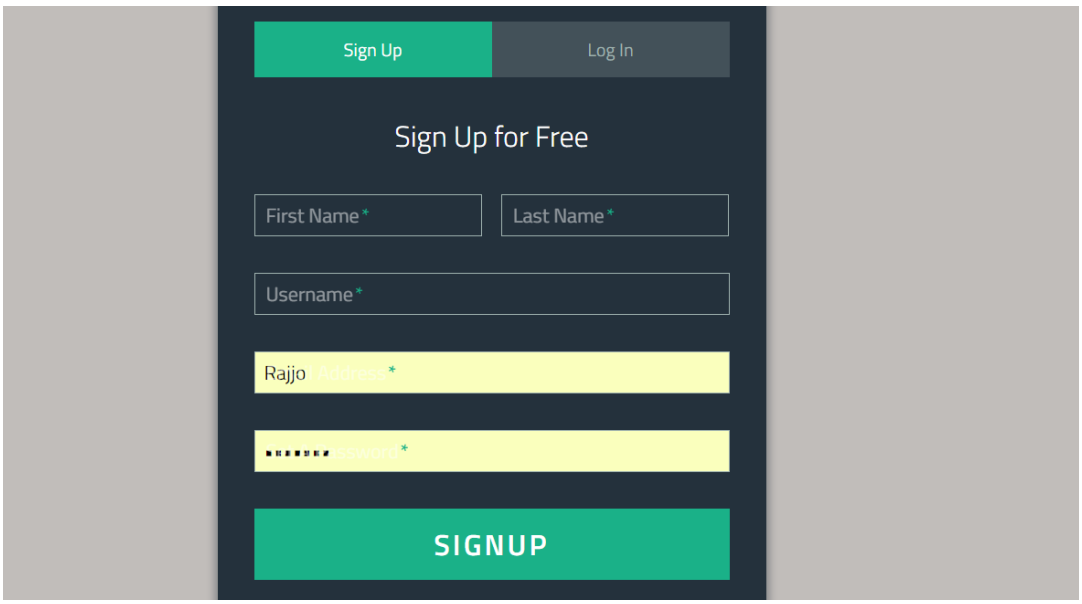
3) log_markednews



DML QUERIES And SNAPSHOTS

1) Login/Signup page





Queries:

SELECT username,email from users

To check whether entered username or emailid already exists in database.

INSERT into users(fname,lname,email,username,password,auth_key,active_status)

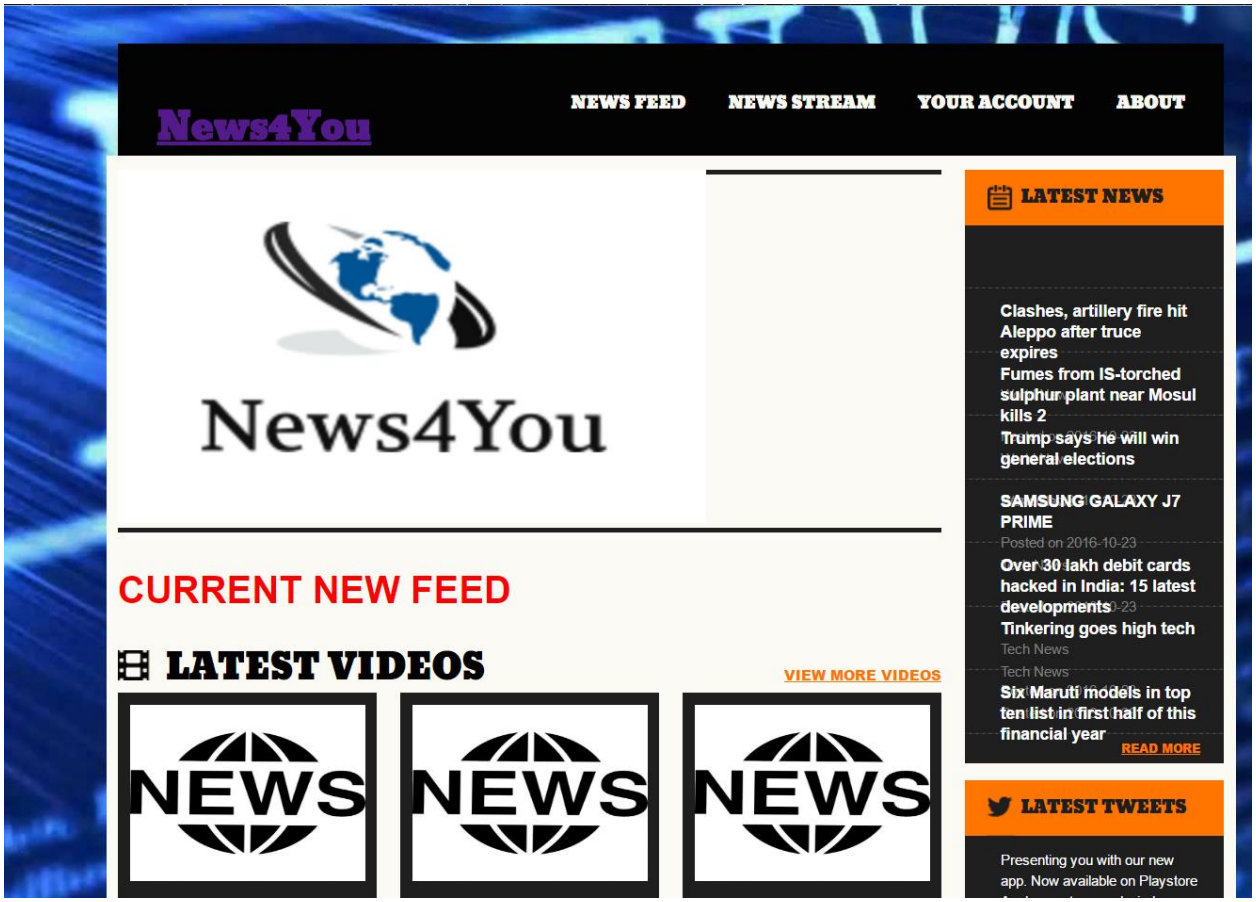
VALUES('$fname','$lname','$email','$uname','$pass',00,1)";

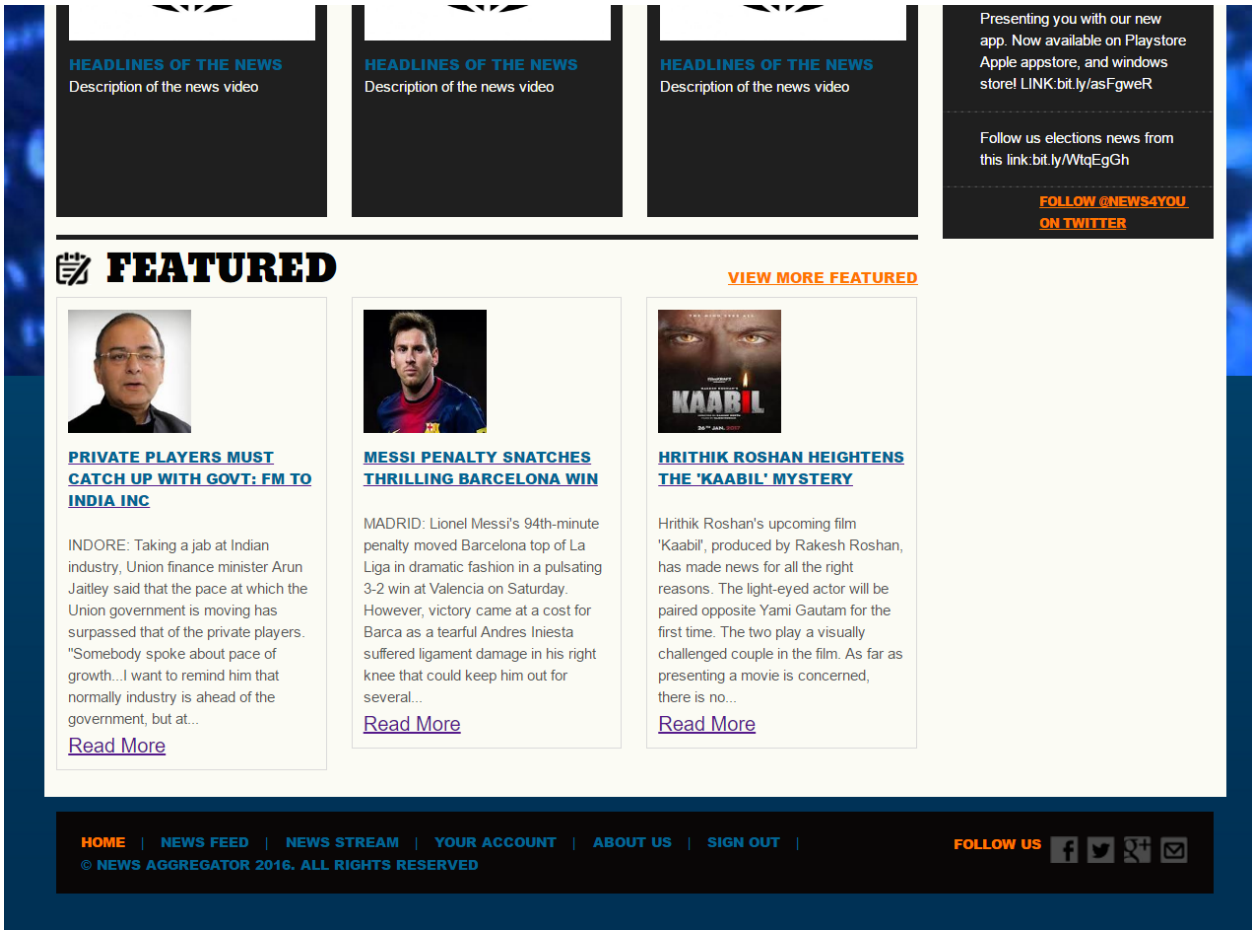
To insert credentials of new users in database.

SELECT * FROM users where password='$passw' AND username='$uname'";

To check whether entered emailid and password are present in database.

2) Index page





Queries:

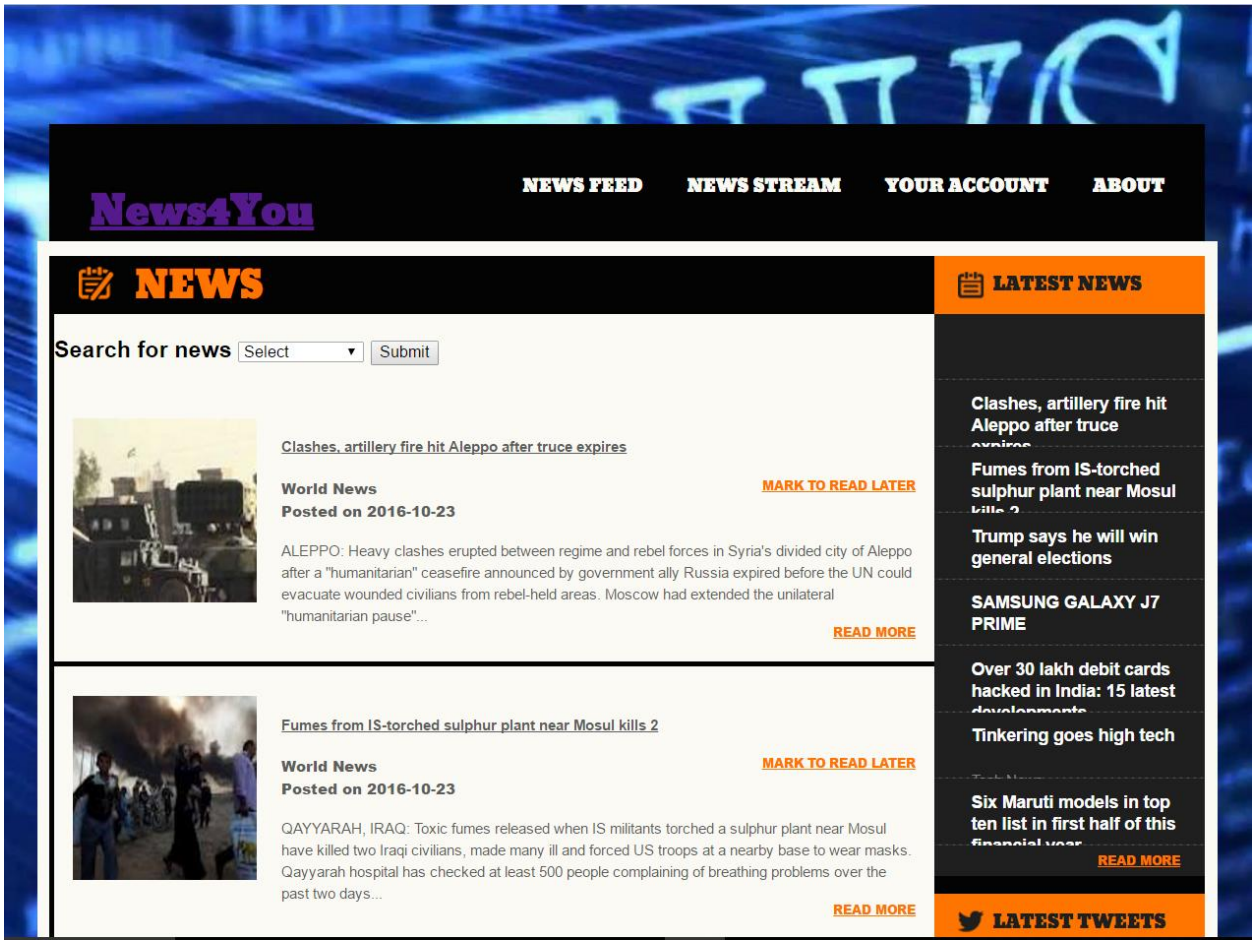
SELECT * FROM `news`

To display all news from database.

SELECT * FROM `news` order by date

To display news ordered by date in the side bar.

3) News page


News4You
NEWS FEED
NEWS STREAM
YOUR ACCOUNT
ABOUT
NEWS
Search for news
Select
Submit
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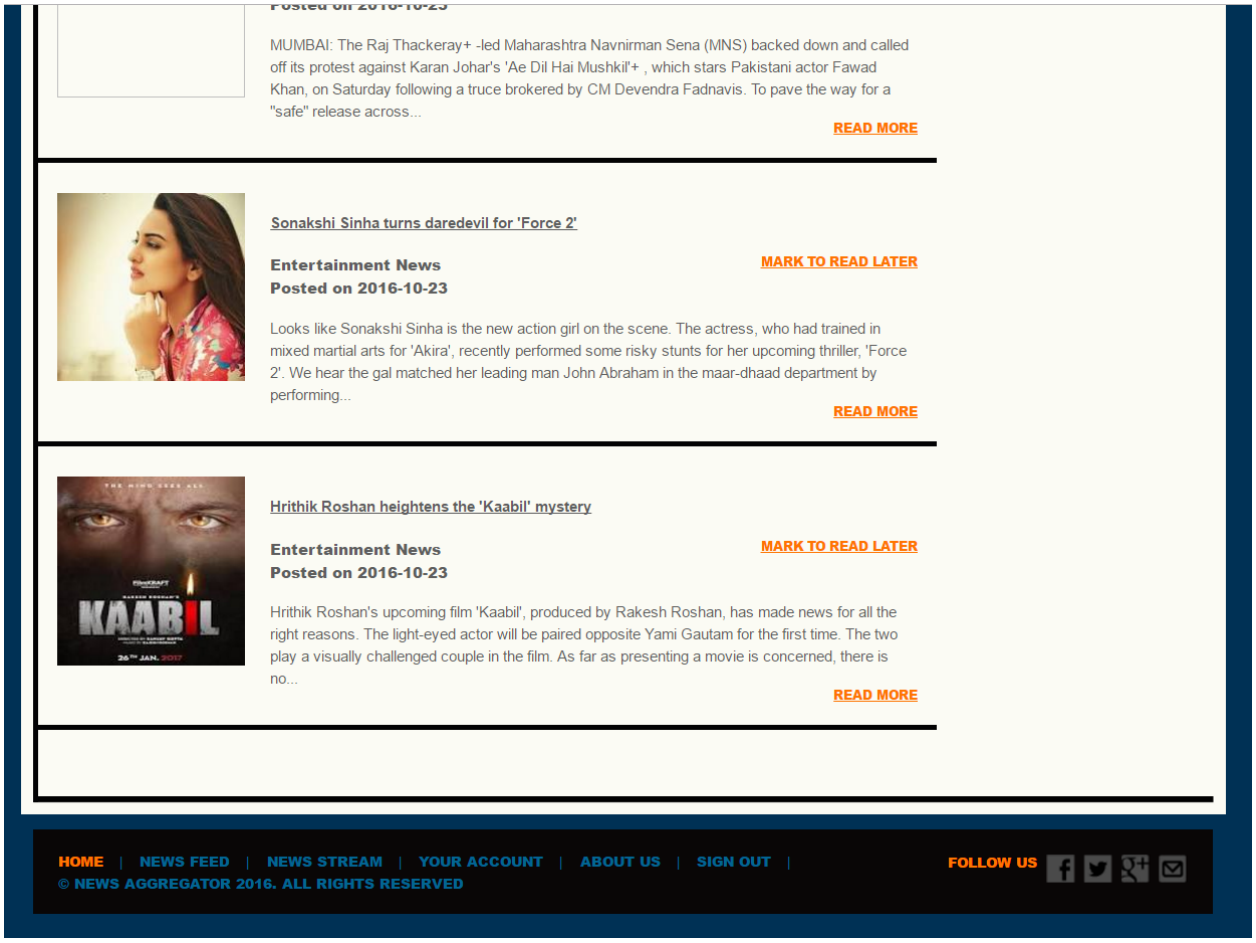


Queries:

SELECT * FROM `news`

To display all news from database.

INSERT INTO marked_news(username,nid) VALUES('$uname',$n)

To record if user has marked any news displayed on the page.

SELECT * FROM news where type='$type'

To display news of particular type.

4) News Stream

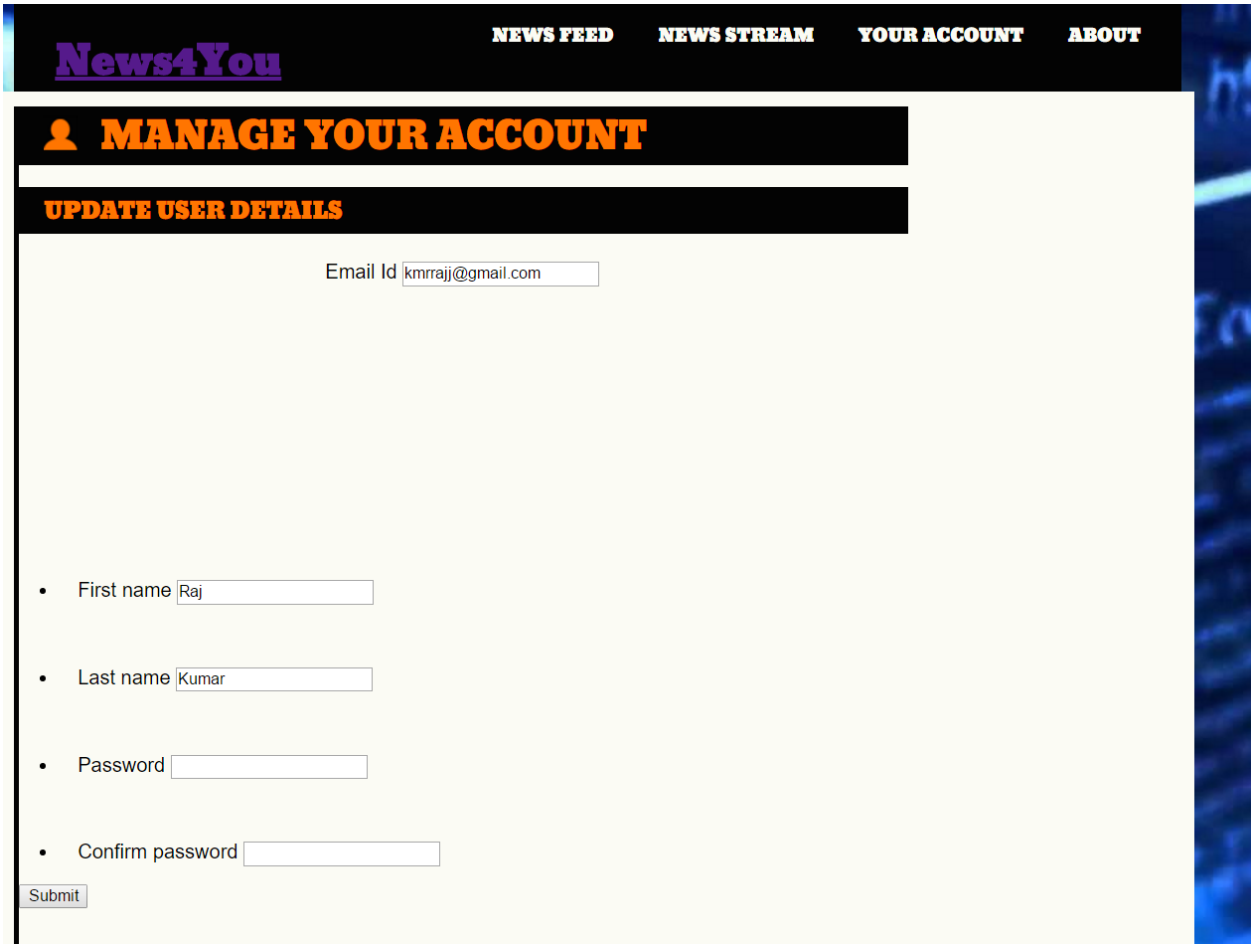
Queries:

SELECT * FROM `news` order by date

To display news ordered by date in the side bar.

NOTE: Storing videos in database is depreciated as it proves to be inefficient. So the video are stored in the HDD of servers ,and are referred through anchor link to front page.

5) YOUR ACCOUNT PAGE



Queries:

SELECT * FROM users where username='$uname'

Displaying username currently logged in.

UPDATE `users` SET password='$pass' where username='$uname'

Updating new password.

Work Distribution

Both UI and backend was done by respective project member.

→ Apoorv Tomar

- Database Design
- Index page
- News feed
- News Single post

→ Raj Shekhar Kumar

- Database Design
- User login page
- Marked news
- Comments section

Future Scope

In future, More rich and diverse content can be aggregated from more reliable media sources.

Also, The APIs which will be used to collect news content comes at a price. (The price is based on news posts taken per month). So to compensate for the cost incurred in implementing the API, Digital marketing (advertisements) can be allowed on the website which can generate revenues.

Famous e-advertisements only advertise on website which have high internet traffic. So, by developing a better UI And UX we can attract more crowd. Following techniques can be used to optimize our website

1) PageRank
   It can be used to rate news posts that are collected from the internet. Displaying and highlighting most trending news on the website will attract more internet traffic.
2) BigPipe
   This technique is used by facebook (initially developed by facebook)to dynamically load only required content. It provides better UX as every post is loaded on single page. The user only has to scroll to view more content.

We believe that after including these features this project will be *production ready* and can be deployed for generating revenues.

*****END*****