

Kalyani Government Engineering College

Affiliated to

Maulana Abul Kalam Azad University of Technology

Department of Computer Application

Kalyani - 741235, Nadia, WB



Project report on

SK Live Android Application

Submitted by

Suhrid Ranjan Das- 10201016007

Under the guidance of

Dr. Anuradha Banerjee

**Assistant Professor of Department of Computer Applications,
Kalyani Government Engineering College**

Phone: 25826680(PBX)
25821309

e-mail: Fax:

কল্যাণী - ৭৪১ ২৩৫
নদীয়া, পশ্চিমবঙ্গ



Kalyani 741 235
Nadia, West Bengal, India

পত্রাঙ্ক / Ref. No.:
তারিখ / Date :

কল্যাণী গভঃ ইঞ্জিনিয়ারিং কলেজ
Kalyani Government Engineering College
(Govt. of West Bengal)

Certificate of Approval

This is to certify that Project Report on “SK Live Android Application” is a record of project work under the curriculum of Maulana Abul Kalam Azad University of Technology(MAKAUT) for the 3rd year 6th semester Examination, 2019 for the subject “ Major Project & Seminar(MCA 691) carried out by “ *Suhrid Ranjan Das-10201016007* ,student of Kalyani Govt. Engineering College under the guidance of Dr.“ Anuradha Banerjee”, Assistant Professor of Department of Computer Applications, Kalyani Government Engineering College, as a requirement for the partial fulfilment of the Degree of Master of Computer Application.

Head

Department of Computer Application
Government Engineering College

Supervisor

Department of Computer Application Kalyani
Kalyani Government Engineering College

Departme

TO WHOM IT MAY CONCERN

This is to certify that **Mr. Suhrid Ranjan Das** has worked with this company from 7th of January 2019 to 22nd of May 2019 as an **intern on Android Application (Project on : SK Live Android App)**.

Mr. Suhrid Ranjan Das having a pleasing personality bears a good moral character and conduct regarding all task and have active habit and manners, he handled his tasks with utmost care and has shown self-respect towards the company.

His performance during this period is up to the required standard.

We wish him **Best of Luck** for his future.


Director



Groveus Informatics Pvt.Ltd

Acknowledgement

The satisfaction that accompanies the successful completion of any task would be incomplete without the mention of people whose ceaseless cooperation made it possible, whose constant guidance and encouragement crowned all our efforts with success.

I am grateful to our project guide Dr. Anuradha Banerjee, Assistant Professor of Department of Computer Applications, Kalyani Government Engineering College, for her guidance, inspiration and constructive suggestions that helped us in the successful completion of this project.

Signatures:

TABLE OF CONTENTS

Introduction:	7
1.1 Problem Statement:	7
1.2 Motivation:	8
1.3 Solution Strategy:	8
2.1 Product Perspective:	9
2.2 Product Functions:	9
2.3 Assumptions and Dependencies:	9
3. Specific Requirements:	9
3.1 Hardware Requirements:	9
3.2 Software Requirements:	9
3.3 Functional Requirements:	11
3.4 Non-Functional Requirements:	13
3.5 Design Constraints:	13
4. Flow Diagrams:	14
4.1 Data Flow Diagram (Level 0):	14
4.2 Data Flow Diagram (Level 1):	14
4.3 Data Flow Diagram (Level 2):	15
4.4 Class Diagram:	16
4.5 Use Case Diagram:	17
4.6 Entity Relationship Diagram:	18
4.7 Activity Diagram:	19
5. Planning:	20
5.1 GNATT Chart Diagram:	20
5.2 PERT Chart Diagram:	20
Working of SK Live:	21
Home Module:	21
LIVE TV Module:	22
Trending:	23
Categories:	24

• Business News:	25
• Entertainment News:	25
• Health News:	26
• Science News:	26
• Sports News:	27
• Technology News:	27
Regional News:	28
• Nepali News:	28
• Bengali News:	28
• Hindi News:	29
• Bhojpuri News:	29
• Marwari News:	30
About Us Section:	30
Contact Us Section:	31
Administrator:	32
Testing	33
Introduction	33
Black Box Testing	33
Limitations	35
Future Scope	35
CONCLUSION	36
REFERENCES	36

Introduction:

News is one of the most popular and required assets of our daily lives. And, in today's hectic world, reading newspaper has become one of the traditional ways of reading the news. In this transforming world, everybody wants to stay updated with the current affairs and news. The events or world is constantly changing with the time and the news help people's access the up-to-date information about them. There are many mediums to get the updates of across the globe such as newspapers, TV, radio, Internet, etc. Furthermore, the technology also helps to the mankind as there are many applications or ways that provide detailed information about all the world for the people's in an easy way. The apps provide all the necessary details that a user needs such as breaking news, trending stories, etc. and they also give knowledge about sports, business, politics, technology and many more.

1.1 Problem Statement:

The news is a part and parcel of regular life. If you want to stay updated with the regular updates, then it is vital to go through the daily news headlines and details. Once upon a time, radio, newspaper, and TV were the only modes of getting the daily news updates; but the traditional approach of delivering news was lacking the feature of delivering news at “real time”, and also the fact that at times it was single native language oriented news and was bound by language barriers, lacking the multi-language simplicity. Also it was time consuming and took effort to find an old news article or a particular news that took place in the past. With the advancement of technology, the storage of data is no longer an issue nowadays thus reducing the effort and time to search a particular news.

1.2 Motivation:

The news app “SK Live” provides facility to watch news videos at real time scenario. Also the product has a website for accessing via web. There is an admin panel which is used to add, delete or upload content to the application dynamically Admin will upload news videos based on 5(five) native languages i.e. Nepali, Bengali, Hindi, Bhojpuri and Marwari and also LIVE News. Users will also have the opportunity to share any news over all social media platforms. Users can view the news and videos that he/she want based on different categories, and also post feedbacks and queries through the application. The apps provide all the necessary details that a user needs such as breaking news, trending stories, etc. and they also give knowledge about sports, business, politics, technology and many more.

1.3 Solution Strategy:

Developing an Android Application that is easy to use and provides most of the features of a news portal. Also making real-time changes according to the user’s needs and finding the current headlines and trending news. Viewing, Sharing and Searching made easy with just one click of a button. Also timely and real time upload of news gives an added advantage. Searching of the news and articles made easy using dynamic search options which helps to search for news articles based on keywords entered and sorted according to priority. The app also focusses on the language barriers that is a pressing issue in India, SK Live unites this language diversity by integrating 5 regional language support and also addressing the different domains of news specifically 6 domains have been covered. These solutions are ideal that forms the basics of a news portal android app.

General Description

2.1 Product Perspective:

The Product “SK Live” Android Application serves the sole purpose of educating the common mass with the current affairs or news happening around them divided into 6 categories of news and 5 regional support video news. Viewing, Sharing and Searching made easy with just one click of a button.

2.2 Product Functions:

SK Live is an easy to use application where people from any regional part of India speaking Nepali, Bengali, Hindi, Bhojpuri and Marwari, and interested in news and headlines can download the app and they will be provided with the real time video news, trending news and LIVE news and can also choose from news categories that suits their interests as well. The apps provide all the specialised news about sports, business, science, technology, health and entertainment from multiple sources across the news world. The LIVE TV feature that broadcasts news 24*7 gives the users the real taste of real time news anywhere, anytime, anyplace.

These apps provide the latest videos and coverages of news on the device. The user can browse or watch live videos through their devices. These applications give access to all the current or live details in a single tap on the home screen.

2.3 Assumptions and Dependencies:

- We assume that the database is handled by the database administrator and the application has no admin section.

- The users wanting to use the application should have android based smartphones along with internet access.
- The database administrator should be careful in deleting or modifying any information knowingly or unknowingly which will lead to inconsistency of the database.
- The end users of this software are assumed to have basic knowledge of using android smartphones and applications.
- In certain cases, the users may be prompted to provide access to read, write external storage and also to turn on GPS on their smartphones. In order to use the features of the application to the fullest, the user should grant access to these requests.

3. Specific Requirements:

3.1 Hardware Interfaces

Hardware Environment	Intel i3/ AMD A8 or higher
System Configuration	RAM-4 GB HDD-80GB
Operating system	Windows 7/8/8.1/10. Any Linux based OS
Mobile Application	Android Jellybean (4.1) or above

3.2 Software Interfaces

Front End	Java, XML
Back End	Core PHP for Rest API, SQLite, MySQL

3.3 Functional Requirements:

SK Live involves the following functions:

3.3.1 Home:

The home is the entry point/dashboard of the app which serves the primary purpose of the LIVE TV. The multiple LIVE TV channels displays news 24*7 and it also holds the different navigation buttons for the regional language news and the basic details about the company SK Live.

3.3.2 Trending:

Trending as the title suggests displays the user all the top stories from different topics and stories or news that are trending now. It's a large collection of news data from different sources and the user has the luxury to share any news across all the social media platforms available in his/her smartphone.

3.3.3 Categories:

Categories provide the news from every corner of the earth. The user can get information about every field such as technology, health, entertainment, business, sports, education, science and many more.

3.3.4 Regional News:

Regional News is further classified into 5 different pages:

- **Nepali** - Users who have Nepali dialect can view and share through unlimited and paginated video news that are completely regional and pertaining to Nepali user base.

- **Bengali** - Users who have Bengali dialect can view and share through unlimited and paginated video news that are completely regional and pertaining to Bengali user base.
- **Hindi** – Users who have Hindi dialect can view and share through unlimited and paginated video news that are completely regional and pertaining to Hindi user base.
- **Bhojpuri** – Users who have Bhojpuri dialect can view and share through unlimited and paginated video news that are completely regional and pertaining to Bhojpuri user base.
- **Marwari** – Users who have Marwari dialect can view and share through unlimited and paginated video news that are completely regional and pertaining to Marwari user base.

3.3.5 About Us:

About Us section lets the users know about the organization handling the Administration and Admin Panel.

3.3.6 Contact Us:

Contact Us section lets the user send their queries to the Administration and the information is saved in the admin panel and database as well so that admin can contact the user.

3.3.7 Admin:

The admin panel is also integrated in the application but only the Admin can access the panel using username and password that will be specifically give to the admin only. The admin upload video news for the different dialects and post news and can include more LIVE TVs.

3.4 Non-Functional Requirements:

3.4.1 Performance

Easy to use interface, sleek design and fast. It is hassle free to view, share, and search news.

3.4.2 Reliability

The application will not be able to connect to the centralized database in the event that there is no internet connection in the smartphone.

3.4.3 Availability

The software will be available to all, irrespective of any android system.

3.4.4 Security

The security requirements deal with the primary security. Users do not have the liability to change or modify with the database.

3.4.5 Maintainability

Backups for database are available.

3.4.6 Portability

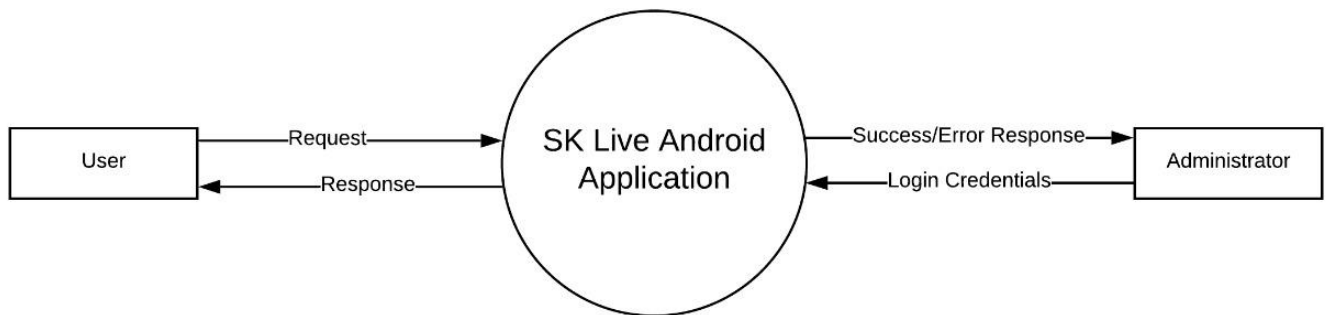
This is an android application and can run on any real device (Android smartphones and tablets).

3.5 Design Constraints:

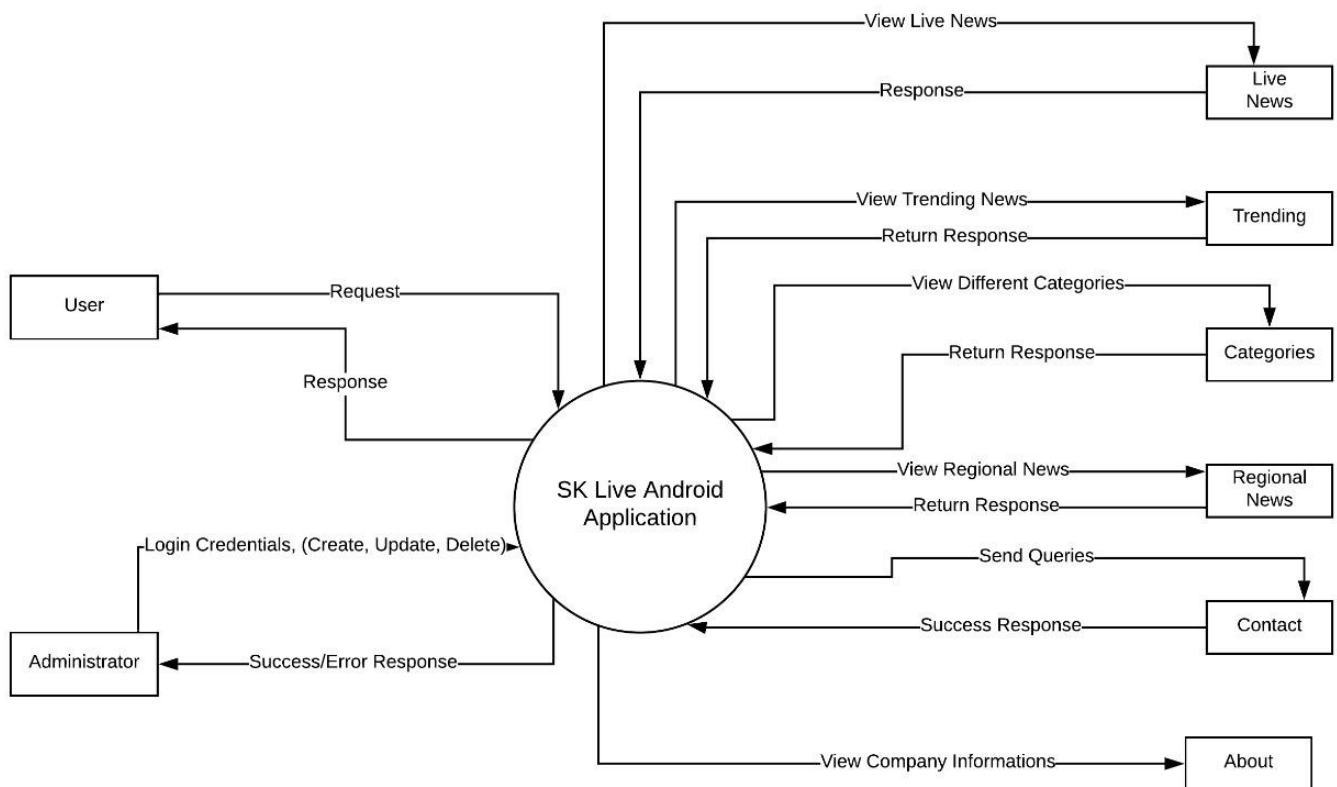
This application provides security. The admin login form prevents the app from being misused by unauthorized users. Only an authorized operator will be granted rights to modify as per requirements. This app is also reliable and fault tolerant. It can handle invalid inputs. Since reliability is major area of concern the app has a backup to avoid data loss.

4. Flow Diagrams:

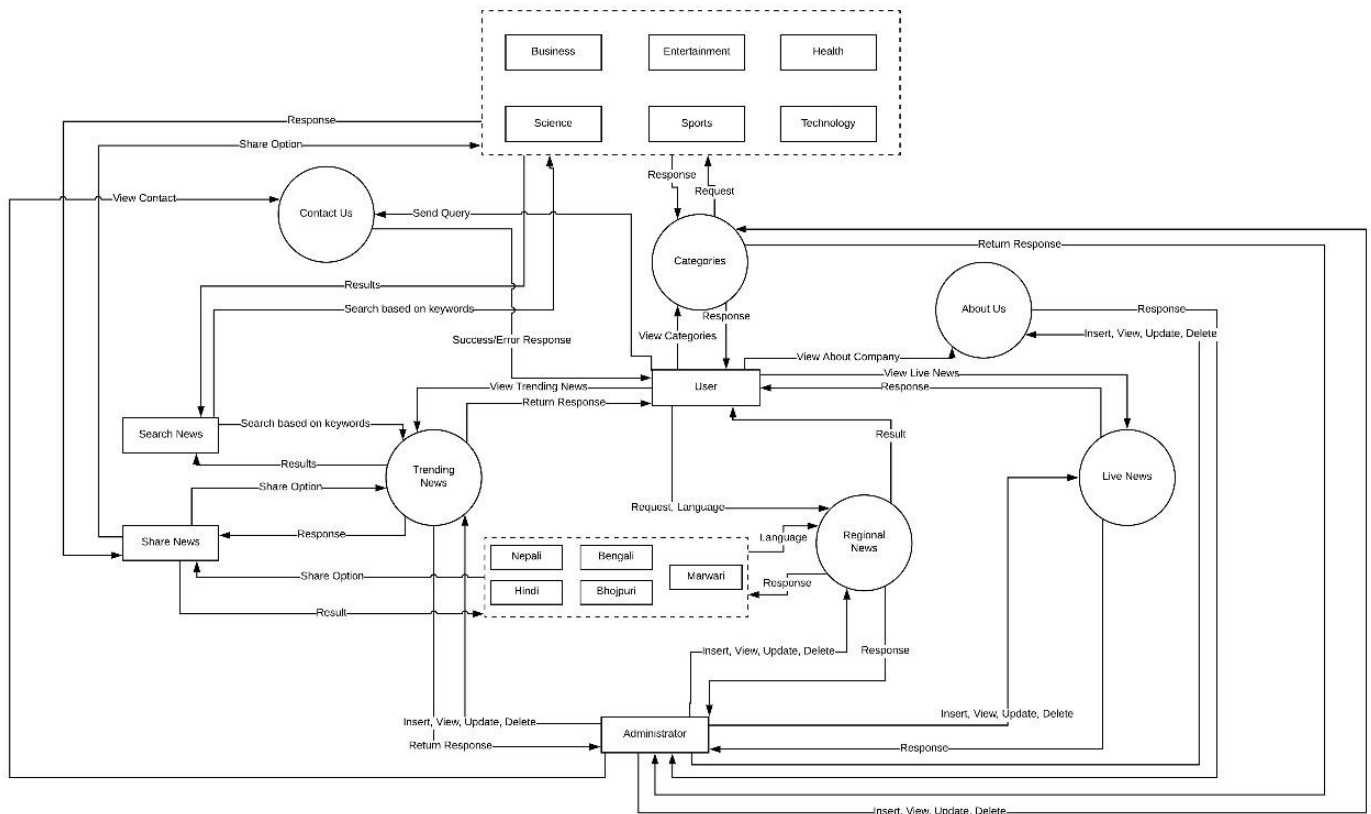
4.1 Data Flow Diagram (Level 0):



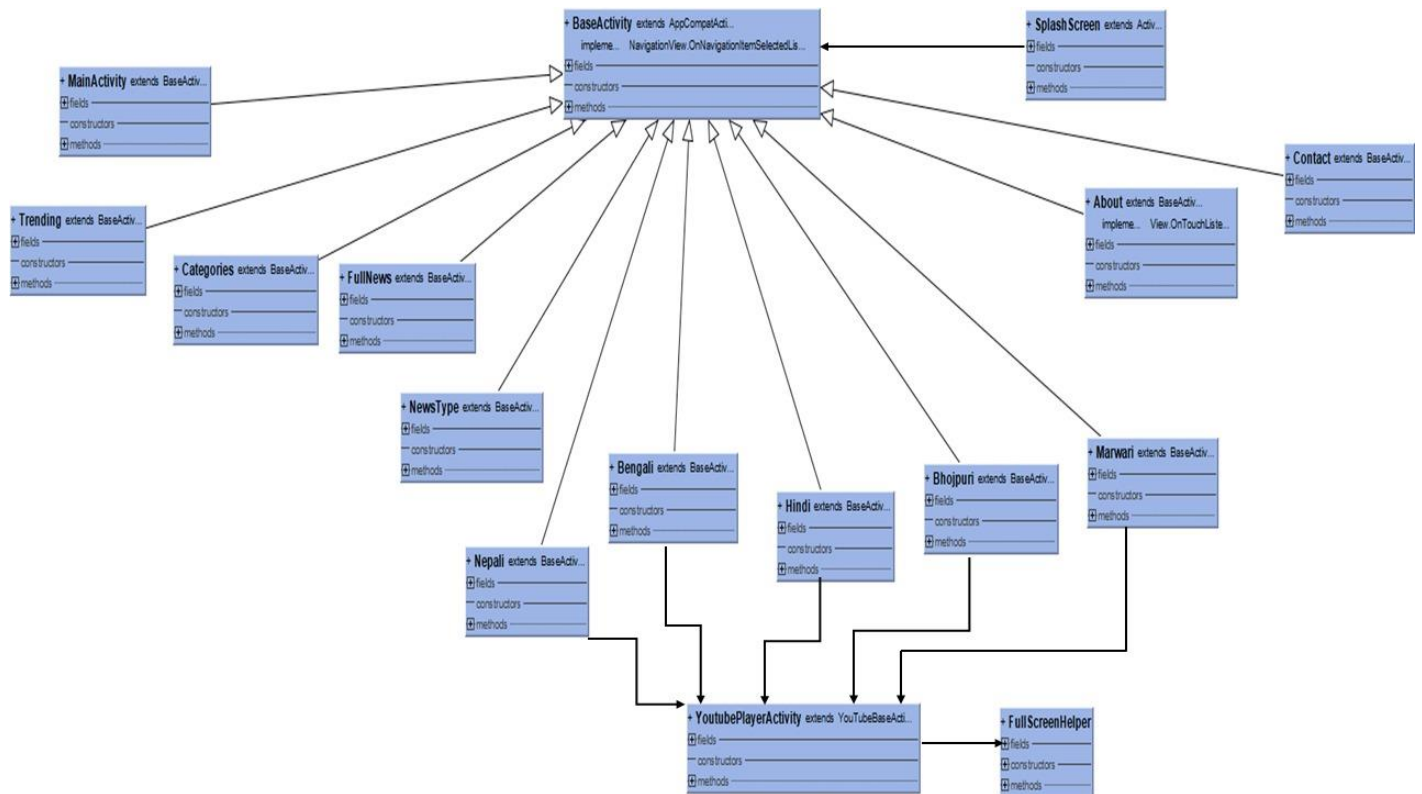
4.2 Data Flow Diagram (Level 1):



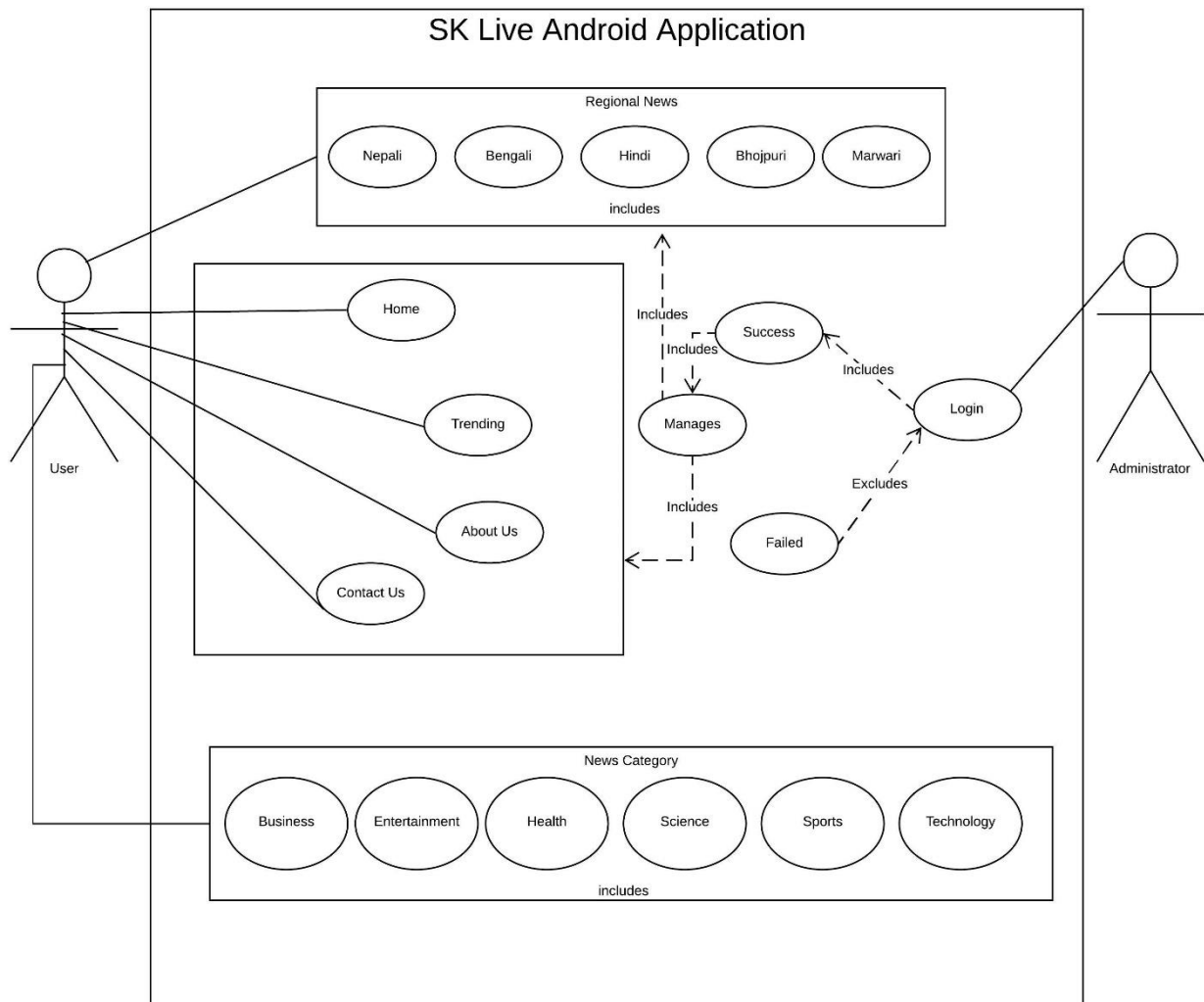
4.3 Data Flow Diagram (Level 2):



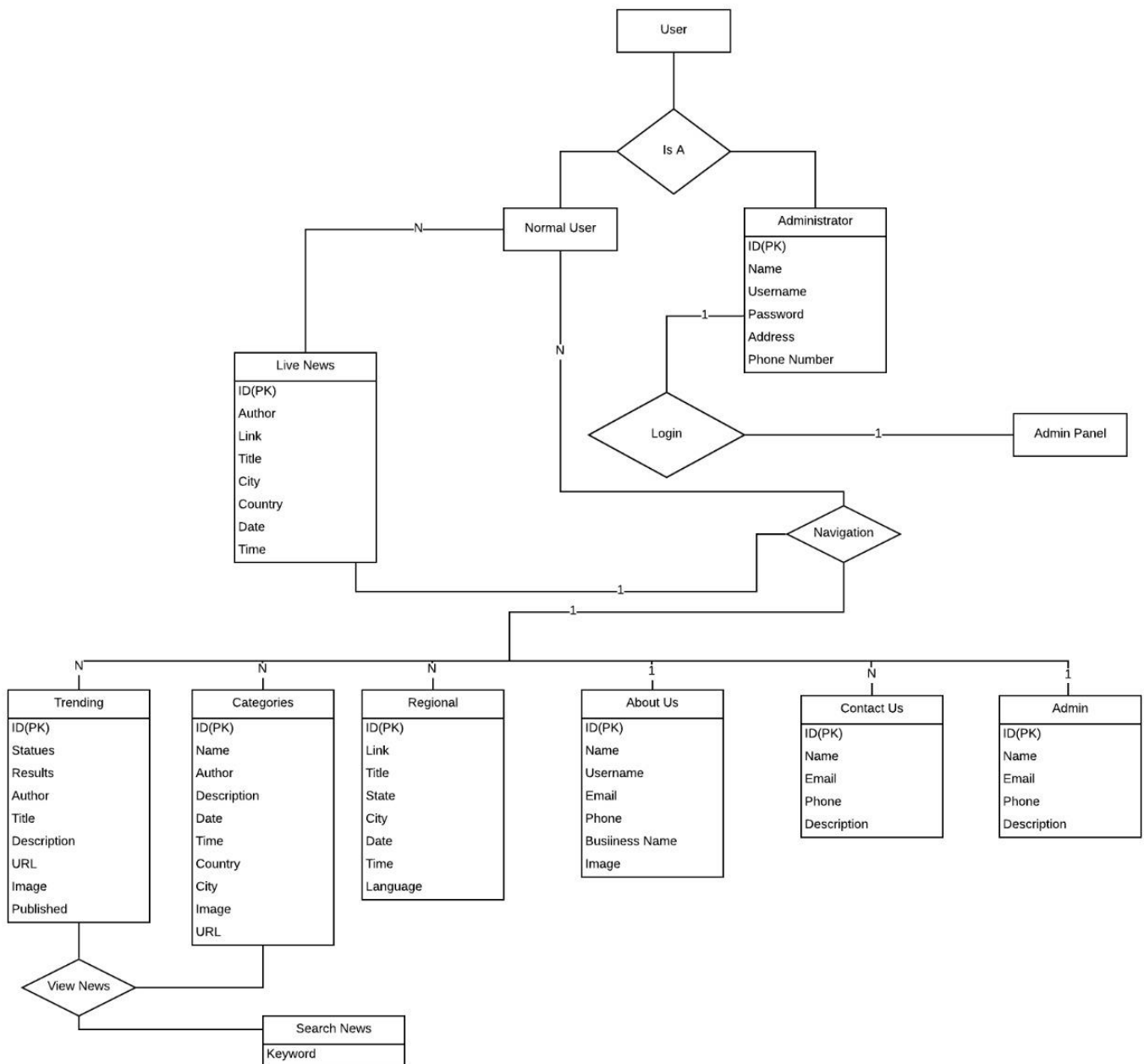
4.4 Class Diagram:



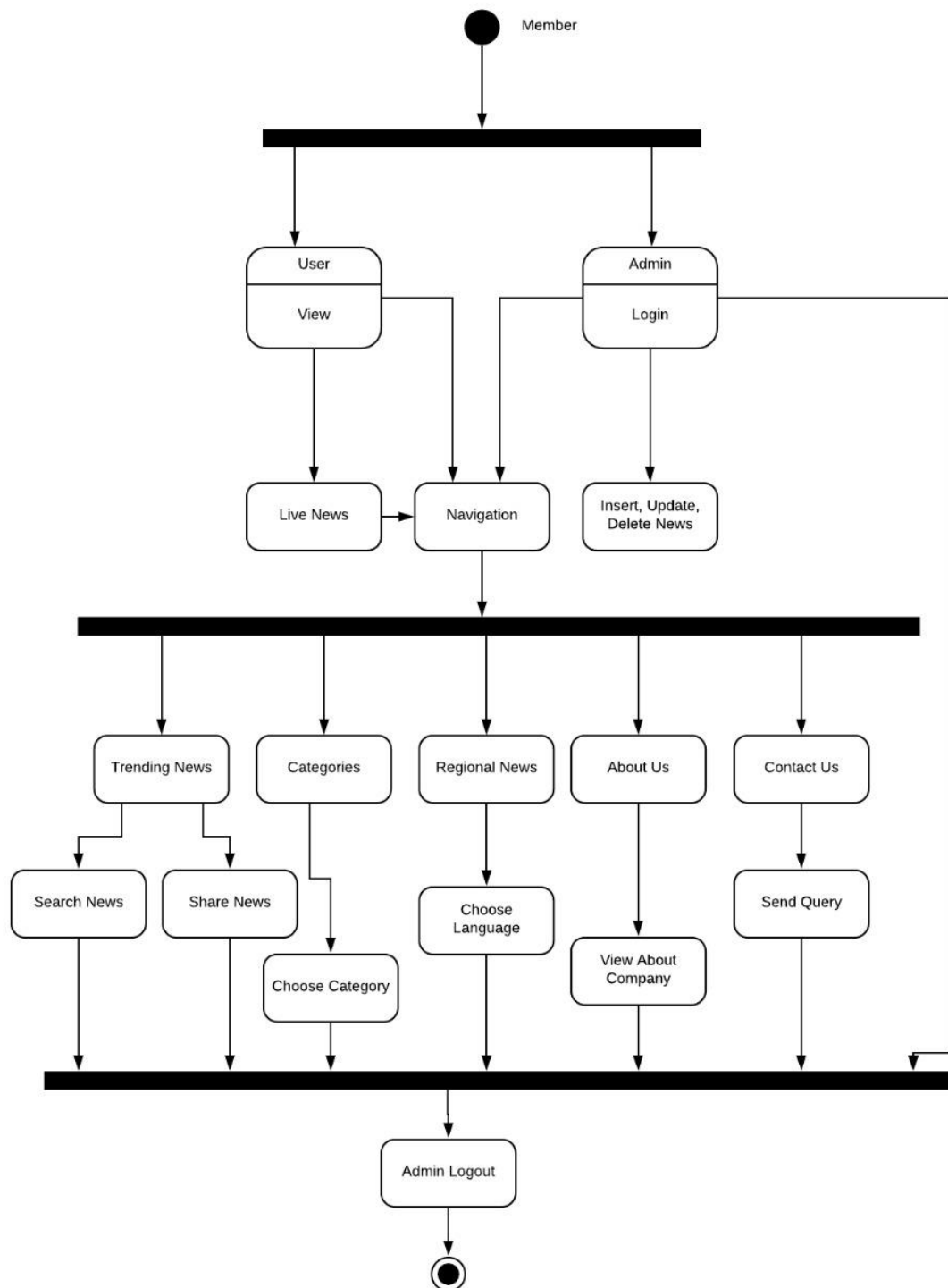
4.5 Use Case Diagram:



4.6 Entity Relationship Diagram:



4.7 Activity Diagram:

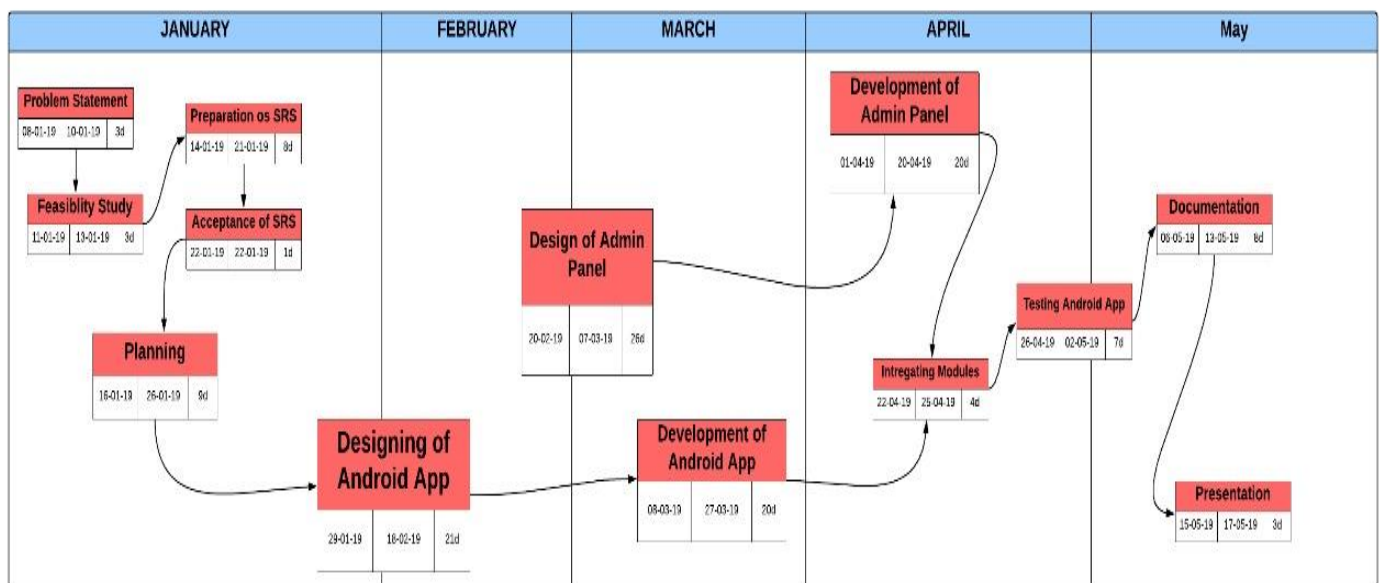


5. Planning:

5.1 GNATT Chart Diagram:



5.2 PERT Chart Diagram:



Working of SK Live:

The working of SK Live is very simplistic in nature. Operating the application as a user is very user friendly, also the app is designed to achieve efficiency using the various benefits of modern technology.

Home Module:

The Home module is the initial entry point into the application which serves the primary purpose of the LIVE TV that displays latest videos and coverages of news on the device. The home screen also holds the different navigation buttons for the regional language news and the basic details about the company SK Live.



In, the details section of SK Live a user can use the following functionality:

- Calling the respective authority.
- Mailing the respective authority.
- Viewing the SK Live News website.

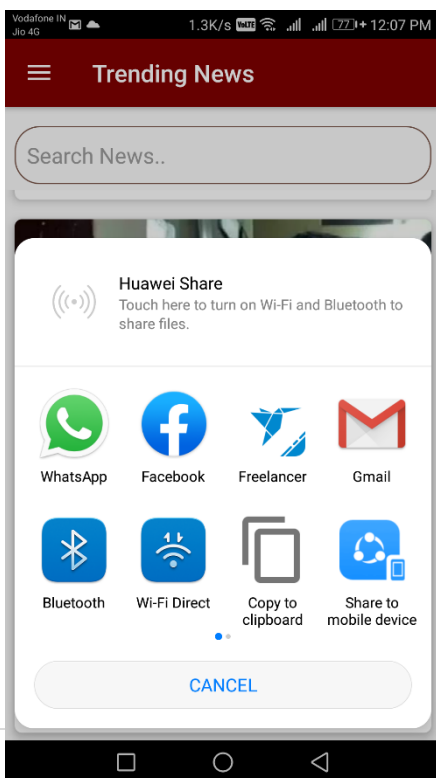
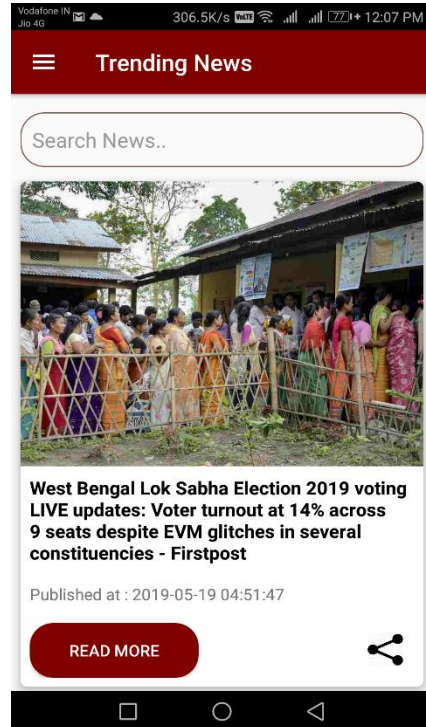
LIVE TV Module:

The LIVE TV runs news 24*7 and displays latest videos and coverages of news on the device. The user can browse or watch live videos through their devices. This unique feature of the application give access to all the current or live details of multiple channels in normal mode as well as in Full screen mode.



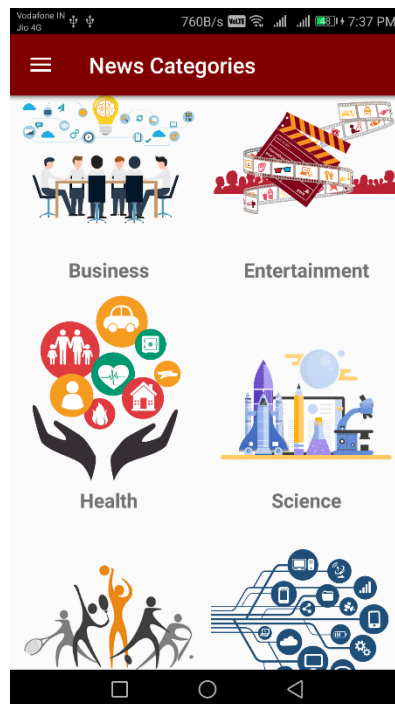
Trending:

Trending News section displays a large collection of news data from different sources and the user has the luxury to read the whole news in details and also the user can share any news across all the social media platforms available in his/her smartphone. Trending News contains news from all genres and domains and is appealing to masses equally.



Categories:

Categories is the section that encompasses news stories from six (6) different genres of news domains i.e., sports, business, science, technology, health and entertainment from multiple sources across the news world. User can choose any category from the list and news regarding that genre will be displayed along with the read more for full article and the share functionality.



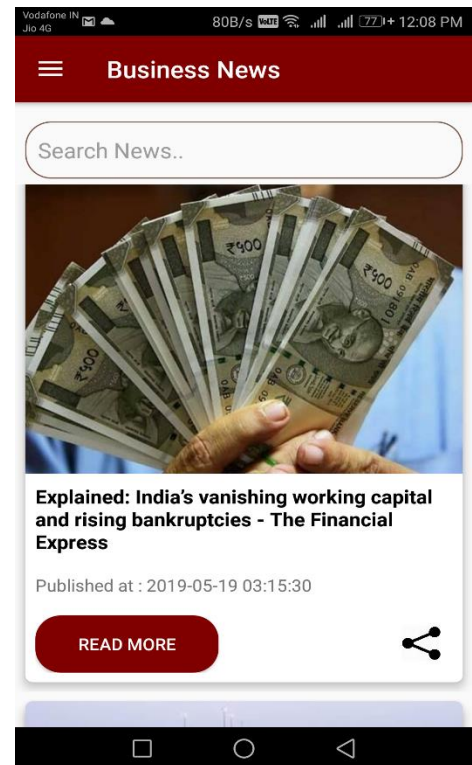
News Categories Subdivision:

News Categories are further subdivided into:

- Business News.
- Entertainment News.
- Health News.
- Science News.
- Sports News.
- Technology News.

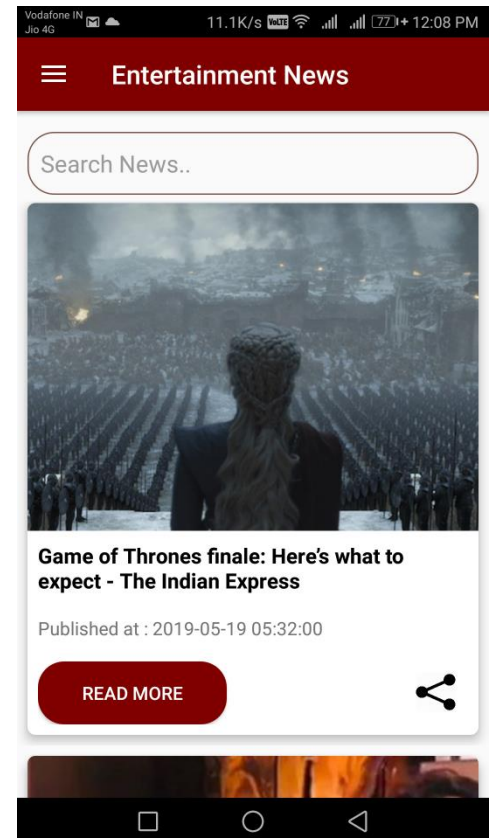
- Business News:

Business News sections displays news from multiple sources regarding Business all over the world.



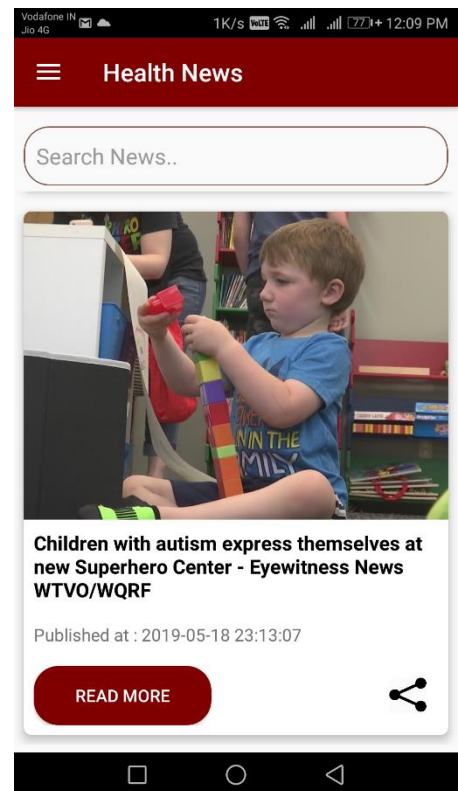
- Entertainment News:

Entertainment News sections displays News from multiple sources regarding Entertainment all over the world.



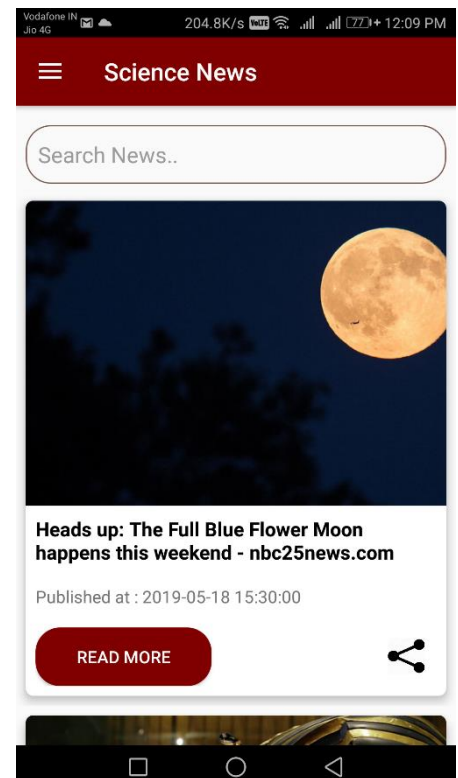
- Health News:

Health News sections displays news from multiple sources regarding Health all over the world.



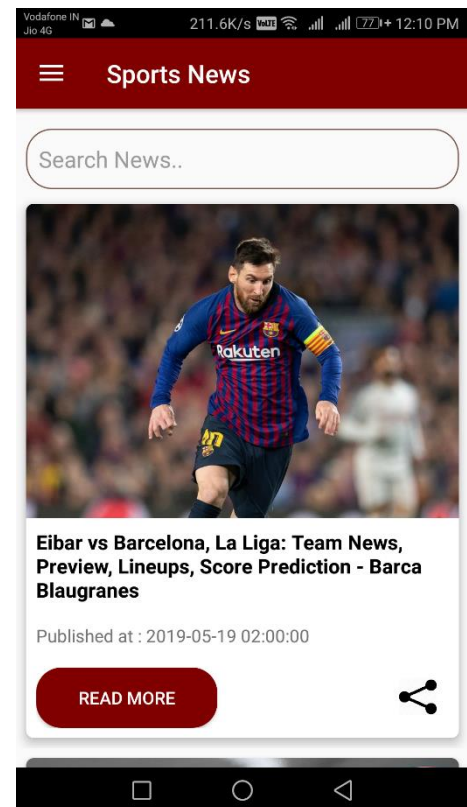
- Science News:

Science News sections displays news from multiple sources regarding Science all over the world.



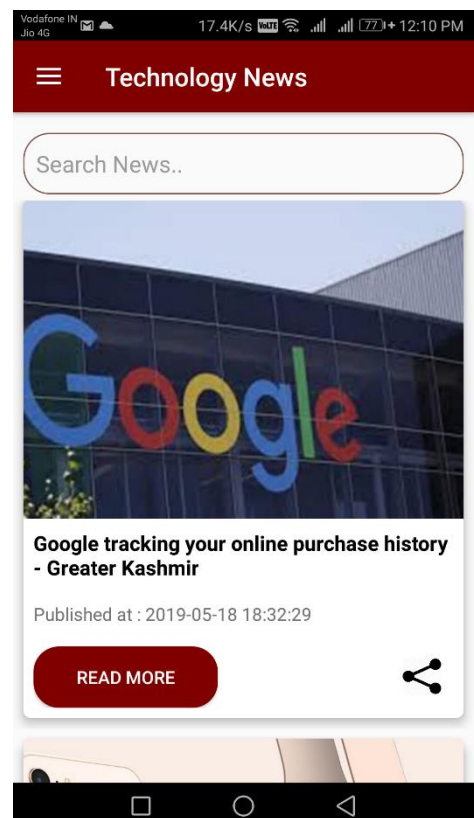
- Sports News:

Sports News sections displays news from multiple sources regarding Sports all over the world.



- Technology News:

Technology News sections displays News from multiple sources regarding Technology all over the world.



Regional News:

SK Live offers news for different regional groups which is an unique feature considering our vast culture and language differences. The app provides 5 different dialects:

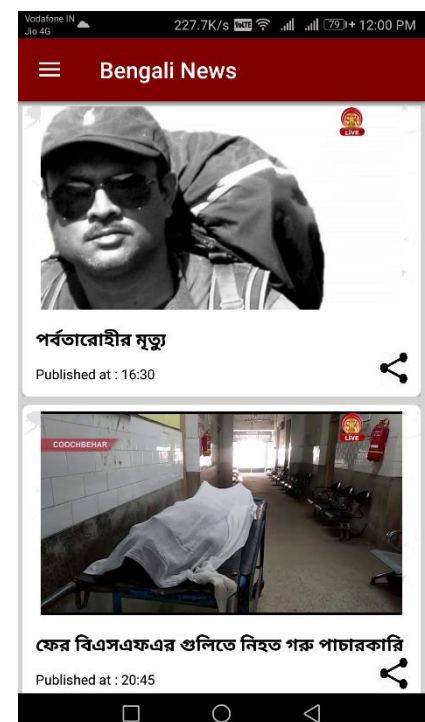
- Nepali News:

Nepali news brings daily news for the users who share the Nepali dialect. Video news is uploaded daily which can be viewed in normal mode as well as in Full screen mode and it uses the YouTube API and any news can be shared across multiple social platforms.



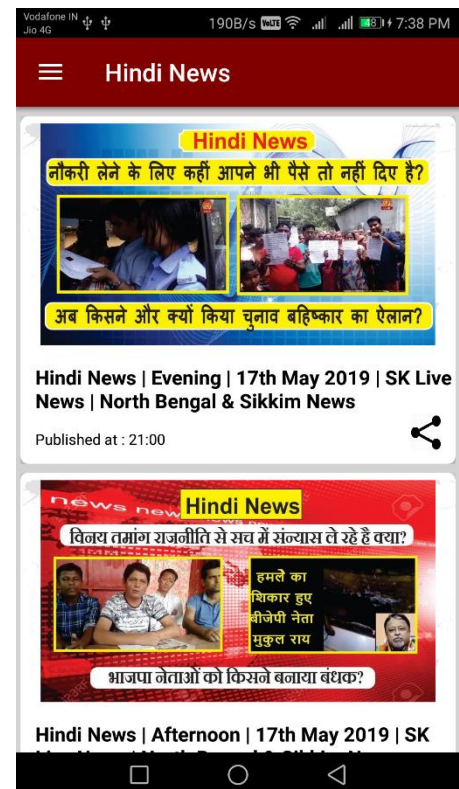
- Bengali News:

Bengali news brings daily news for the users who share the Bengali dialect. Video news is uploaded daily which can be viewed in normal mode as well as in Full screen mode and it uses the YouTube API and any news can be shared across multiple social platforms.



- Hindi News:

Hindi news brings daily news for the users who share the Hindi dialect. Video news is uploaded daily which can be viewed in normal mode as well as in Full screen mode and it uses the YouTube API and any news can be shared across multiple social platforms.



- Bhojpuri News:

Bhojpuri news brings daily news for the users who share the Bhojpuri dialect. Video news is uploaded daily which can be viewed in normal mode as well as in Full screen mode and it uses the YouTube API and any news can be shared across multiple social platforms.



- Marwari News:

Marwari news brings daily news for the users who share the Marwari dialect. Video news is uploaded daily which can be viewed in normal mode as well as in Full screen mode and it uses the YouTube API and any news can be shared across multiple social platforms.



About Us Section:

In About Us section, information of the company or organization that is handling the admin panel is shared. About Us basically tells about the mission and the vision of the company SK Live and how it wants to serve people.



Contact Us Section:

In this section, any user can post any query from the app directly which goes to the admin and gets stored in the admin panel as well as database.

Vodafone IN
Jio 4G

566B/s

12:03 PM

☰ Contact Us

Contact Us

Name

Email

Phone

Your Message

SUBMIT

Vodafone IN
Jio 4G

716B/s

12:03 PM

☰ Contact Us

Contact Us

Hello

suhridas1@gmail.com

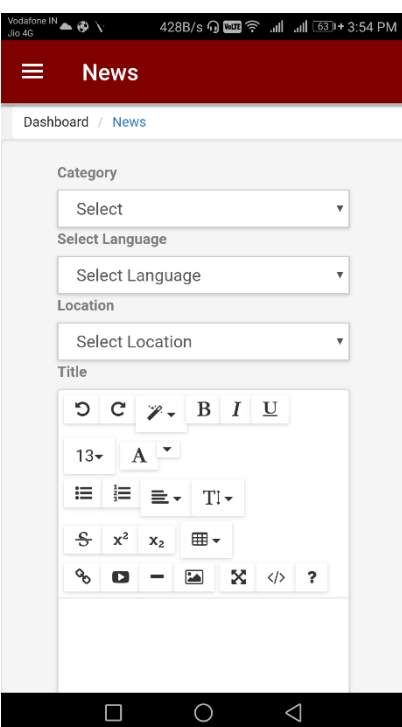
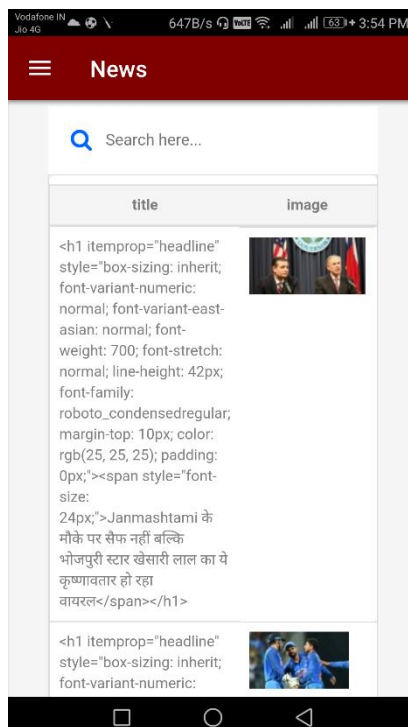
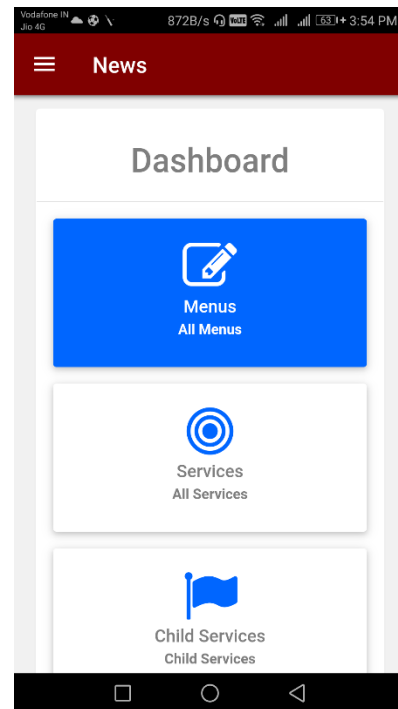
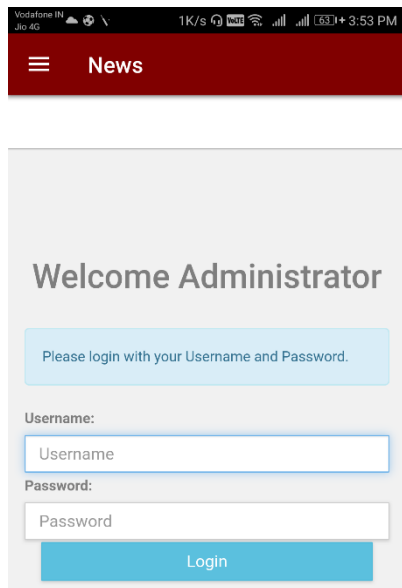
123456789

App for SK Live news works perfectly.

SUBMIT

Administrator:

The whole admin panel is integrated in the app so that even the Admin can use the app and at the same time can also update contents of the app if need be. The admin can upload images, videos, post news, and view queries. Admin can also update organization's contact. Admin Panel can only be logged in by the user having the proper user id and password.



Testing:

Introduction

Once source code has been generated, software must be tested to uncover (and correct) as many errors as possible before delivery to customer. The goal is to design a series of test cases that have a high likelihood of finding errors. To uncover the errors software techniques are used. These techniques provide systematic guidance for designing test that

- (1) Exercise the internal logic of software components, and
- (2) Exercise the input and output domains of the program to uncover errors in program function, behaviour and performance.

Steps:

Software is tested from two different perspectives:

- (1) Internal program logic is exercised using —White box|| test case design Techniques.
- (2) Software requirements are exercised using —block box|| test case

Design techniques. In both cases, the intent is to find the maximum number of errors with the Minimum amount of effort and time.

Black Box Testing

Login Module

Sr No	Test Case	Test Case Name	Test Case Description	Steps	Expected Result (correct credentials)	Expected Result (wrong credentials)	Actual Result (correct credentials)	Actual Result (wrong credentials)	Status Pass/Fail
1	Admin Login	Validate Login(correct credentials/wrong credentials)	To verify user name and password on login page	Enter user name and password and click login button	Login Successful and enter admin page	Display message Wrong Credentials	Login Successful and enter admin page	Display message Wrong Credentials	Pass

Trending News

Sr No	Test Case	Test Case Name	Test Case Description	Expected Result (correct)	Expected Result (wrong)	Actual Result (correct)	Actual Result (wrong)	Status Pass / Fail
1	User	Trending News	View Trending news and can also search and share news	Latest trending news are fetched and displayed. The search shows correct results.	News is not fetched and search does not show any result	Latest trending news are fetched and displayed. The search shows correct results.	News is not fetched and search does not show any result	Pass

Categories

Sr No	Test Case	Test Case Name	Test Case Description	Expected Result (correct credentials)	Expected Result (wrong credentials)	Actual Result (correct credentials)	Actual Result (wrong credentials)	Status Pass/ Fail
1	User	View categorical news	User can choose news of different categories and also search news	User gets the news filtered by category chosen and search results displayed correctly	Category is not fetched and hence no news is fetched	User gets the news filtered by category chosen and search results displayed correctly	Category is not fetched and hence no news is fetched	Pass

Regional News

Sr No	Test Case	Test Case Name	Test Case Description	Expected Result (correct credentials)	Expected Result (wrong credentials)	Actual Result (correct credentials)	Actual Result (wrong credentials)	Status Pass/ Fail
1	User	View Regional News	To view news based on regional languages	News of the chosen language is displayed and video can be played in full screen	News of the chosen language could not be fetched	News of the chosen language is displayed and video can be played in full screen	News of the chosen language could not be fetched	Pass
2	Admin	Upload News	To upload news from youtube or any other source	News upload successful	News upload error	News upload successful	News upload error	Pass

Contact

Sr No	Test Case	Test Case Name	Test Case Description	Expected Result (correct credentials)	Expected Result (wrong credentials)	Actual Result (correct credentials)	Actual Result (wrong credentials)	Status Pass/Fail
1	User	Contact admin	To send any query to admin via app	The query is successfully posted to admin panel	Error in posting query	The query is successfully posted to admin panel	Error in posting query	Pass

Limitations

Following are the limitations of the SK Live Android Application:

- Filter of news not available.
- Login and Registration feature not available.
- No forum sections for discussion of news.
- User accounts not provided for choice based news.

Future Scope

The following are the updates that will be implemented in future:

- Login and Registration Modules need to be implemented.
- Implementation of Filter Interests option in the News section to make the application more flexible.
- Implementation of Forum section.

CONCLUSION

The SK Live Android application will be useful for masses that comes from different regions and with different dialects due to the fact for its multi lingual supported news videos. With the news being created every minute and relayed through TV, radio and internet, the updated news is already old by the next morning. The main benefit of the application is its dynamic built, so that every time any content is updated, the change is dynamically reflected in the application without updating the application several times. SK Live Android Applications with 500+ downloads and continues to grow allows people to stay connected with the real world and be aware of news bulletins, trending news, regional news and news of varied domains.

REFERENCES

Web:

<https://stackoverflow.com/>

<https://developer.android.com/>

<https://sklivenews.com/>

<https://newsapi.org/s/india-news-api>

<https://www.androidhive.info/>