

A Major Project Final Report on
CRICLIVE

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Abstract

Criclive is a web based application that shows ball by ball (live) update of national and international cricket match using web socket technology. The main objective of proposed application is to provide clear idea about the latest score from the latest cricket matches at real time since there may be situations where many people who love cricket may not have TVs or other media with them (they may be travelling, working in organization etc.). This system is also used for showing information and analytics related to any live, past and upcoming games. User can register and login to participate in commenting. In this system we have presented an implementation of Naïve Bayes' algorithm of sentiment analysis to classify user comments into good or bad status. Naive Bayes Classifier is one of the most intuitive yet popular algorithms employed in supervised learning, whenever the task is a classification problem. We have use text blob library of python to implement the sentimental analysis which is built on the shoulders of NLTK and Pattern. TextBlob is a Python library for processing textual data. It provides a simple API for diving into common natural language processing (NLP) tasks such as part-of-speech tagging, noun phrase extraction, sentiment analysis, classification, translation, and more. User can register and login to participate in commenting and other interesting activities of application.

This system uses both http and web socket protocol for client server communication. Http protocol is used for requesting various pages in the website and web socket protocol is used for live score update. HTTP protocol is one way communication where client request to the server and only then server responds. After that, connection closes. On the other hand web socket is bidirectional communication protocol and is always open after the connection is set. So server and client can communicate to each other at any time. This amazing feature is used in our system in which whenever admin creates new update of live game on the server side, then client browser will get the updates immediately through web socket channel without client browser request. So updates are shown to the client browser in real time. Ajax might be an option to this job but due to the large number of requests product by many clients in the server, server may hang up or crash.

Keywords: real time, web socket, textblob

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1. Introduction

Cricket has a lot of followers. Cricket is most watched sports around the world. It is not possible to watch every match live that held on every corner of the world. Many people don't have television or cable connection at their place or if they are travelling. That's why we need live updating website/ web application that gives real time live score.

Criclive is a web based application that allows the viewer to have clear idea about the latest cricket matches. It views the schedule for upcoming match. It provides all crickets' news and news about teams. The main objective of proposed application is to provide clear idea about the latest score from the latest cricket matches at real time. This system is also used for showing information and analytics related to any live, past and upcoming games. In this system we have presented an implementation of Naïve Bayes' algorithm of sentiment analysis to classify user comments into good or bad status. Naive Bayes Classifier is one of the most intuitive yet popular algorithms employed in supervised learning, whenever the task is a classification problem. We have use text blob library of python to implement the sentimental analysis which is built on the shoulders of NLTK and Pattern. TextBlob is a Python (2 and 3) library for processing textual data. It provides a simple API for diving into common natural language processing (NLP) tasks such as part-of-speech tagging, noun phrase extraction, sentiment analysis, classification, translation, and more. A big advantage of this is, it is easy to learn and offers a lot of features like sentiment analysis, pos-tagging, noun phrase extraction, etc. User can register and login to participate in commenting and other interesting activities of application.

This system uses both http and web socket protocol for client server communication. Http protocol is used for requesting various pages in the website and web socket protocol is used for live score update. HTTP protocol is one way communication where client request to the server and only then server responds. After that, connection closes. On the other hand web socket is bidirectional communication protocol and is always open after the connection is set. So server and client can communicate to each other at any time. This amazing feature is used in our application in which whenever admin creates new update of live game on the server side, then client browser will get the updates

immediately through web socket channel without client browser request. So updates are shown to the client browser in real time.

This system use HTML, CSS, Java Scripts, and Django as developer tools and SQLite as Database server. This system uses web socket protocol for client-server communication.

1.1 Problem statement

There are different problem faced by cricket lover to watch the live crickets games. Some of the problems are

- Many People don't have television or cable connection at their place or while traveling at that condition our web app will provide the real updates about live cricket.
- When people are travelling, they miss the match; at that condition it provides update.
- Some people just need update about live cricket rather than watching the match while being in office or some work. They can get live update through this web application.

1.2 Objectives

- To provide ball by ball update of national and international cricket game for cricket fans.
- To provide and notify about upcoming games, teams, players information to the fans and subscribers.

1.3 Scopes

- This can be used for entertainment proposed.
- It can be used anywhere anytime through the internet.
- This system can be used in marketing.
- This system can be reference for same techniques game.

1.4 Limitation

- Live streaming video is not available in this system.
- Only Admin can upload the cricket update.

2. Literature Review

There are different online live scoring cricket website/web applications available. The idea of live scores is to provide real time information about sports result. Some of the live scoring website/web applications are

Cricnepal [2] is a digital cricket magazine in Nepal launched in 2010. The site delivers news, articles, photos, live scores and blog related to Nepal and International Cricket. It has all the database of Nepal National Cricket team and matches records. The website is bilingual and is available in English and Nepali language. As of 2019, the website has promoted all age level cricket tournament of Nepal, including domestic and international. The Cricnepal.com was officially launched in 2010 by Nischal Tiwari to bring news and updates of Nepali cricket through digital medium.

ESPNcricinfo [3] is the world's leading cricket website and among the top five single-sport websites in the world. Founded in 1993, ESPNcricinfo's content includes news, live ball-by-ball coverage of all Test and one-day international matches and features written by some of the world's best cricketers and cricket writers. The site also includes in-depth statistics on every one of the 3000 international and 50,000 first-class cricketers to have played the game. Now a wholly owned subsidiary of ESPN Inc., the world's leading multimedia sports entertainment company, ESPNcricinfo is available to cricket fans through the online media and on a host of mobile platforms and handheld devices. ESPNcricinfo has a thriving user community and reaches over 20 million users every month.

CricBuzz [4] is an Indian cricket news website owned by Times Internet. It features news, articles and live coverage of cricket matches (including videos, scorecards and text commentary), player and team rankings. The website also offers a mobile app. CricBuzz is the most popular mobile app for cricket news and scores in India.

CricketNext is one of Indian sub-continent's most read and followed cricket website where news is given preference over opinion. A dynamic website, which offers its

viewers live ball-by-ball coverage of all international matches and news ranging from match reports to inside scoops on cricket stars and the functioning of cricket associations across the globe, It is every cricket lover's one-stop destination Founded in 2000. CricketNext is owned by the Network 18 Group and headquartered in Noida, in the NCR. CricketNext is also available to its fans on mobile and social platforms.

CricLine is a free app that allows users to catch up on live cricket scores; it's available for both iOS and Android devices. With the app, users can track and keep updated with live scores of Cricket matches.

Reddit [5] is considered as an ideal choice as a free Cricket and Football streaming website. Users can easily set up the stream on this website to watch different sports unlimitedly for free. Reddit is a very big brand and that's why there is a separate channel for the stream of every new single sport. The user-interface of this website is pretty much appealing in our opinion and you will also surely get pleased to visit the official website of Reddit.

Hot star [6] is another one of the best websites where users can not only stream cricket live matches for free, but they can also watch family shows, movies, TV shows, web series and much more. For free live streaming, you need to register on Hotstar with your email ID. You have to connect your device to a Wi-Fi network because live streaming using personal data flow is only allowed for 5 minutes.

Comparison with our system

Our system is not designed to compete with the commercial system. Others systems includes videos, scorecards, text commentary and many other feature.

Our system can provide live scoring, comment box where users can comment, see cricket news, information about different teams, videos, live score of the live game, schedule for

upcoming game, run information, wicket information, and ranking provided by ICC, users can comment in the live game. Users comment is classified in good or bad status which is the implementation of sentimental analysis using Naïve Bayes classifier from python library (textblob).

Features not provided

Live video streaming are not available in our application.

3. Methodology

We have worked on following methodologies for the application of Knowledge, skills, tools and technique.

The Project consist of the Web-application which contains the admin panel, users' panel, database, live updates about the matches, comment box , news about the sports, teams news, Sentimental analysis is performed in comment to classify it into good or bad status using Naïve Bayes classifier from python library (textblob).

For the design and testing of this project following design steps is followed.

3.1 Information Gathering

3.2 Data organization

3.3 Design phase

3.4 Development and Coding

3.5 Testing

3.6 Technology used

3.7 Tools used

3.1 Information Gathering

The first step in designing a successful website is to gather information. Many thing need to be taken into consideration when the look and feel of site is created. The thing to be consider are

i. Purpose and Target audience

The system is targeted for the cricket lovers so we have taken the design steps of other similar project available which is part of literature review. There are many projects which is similar to our project "criclive" such as CricNepal, Cricbuzz and so on. This system is mainly targeted to cricket lovers.

ii. Goals

Creating a complete web application which provides user panel, admin panel, live score updates, comment box, run information, wicket information, all cricket news, news about the teams, videos, photos, notification to the subscriber through email, classification of comment into good or status using text blob library of python to perform sentimental analysis, schedule for upcoming game, ranking to different team provided by ICC ranking.

3.2 Data organization

Since our application covers game from national game and international game, we have use following techniques for live game update.

The technique is for national and international game which is inside the nation and small state level, district level or province level game scores are updated. This information is uploaded by contributor of the games. For example if a game is between two teams' province 1 and province 3, all team information is uploaded before the game. When game starts, then contributor can login to upload ball by ball information of the game with easy interface. Baller is assigned just before the over and batsman is selected according to the situation. Ball count in the over is increased after every balling. Run and wicket information is uploaded in every ball. After selecting the suggestion like 1 run, 2 run, 3 run, 4 run, 5 run, 6 run or dot ball or wicket, update is generated automatically like Over: 19.4 Sandip Lamichhane to Paras Khadka 4 run.

Similarly, to train data for sentimental analysis (naïve bayes classifier of textblob), we have created a json file in which some of the sentences or words is classified into good or bad status. According to which naïve bayes classifier performs its algorithm.

3.3 Design Phase

During the design phase, all the visual content, such as image, photos and structure is created at this step. The target audience is one of the key factors taken into the design consideration. It includes software development life cycle design and the context diagram.

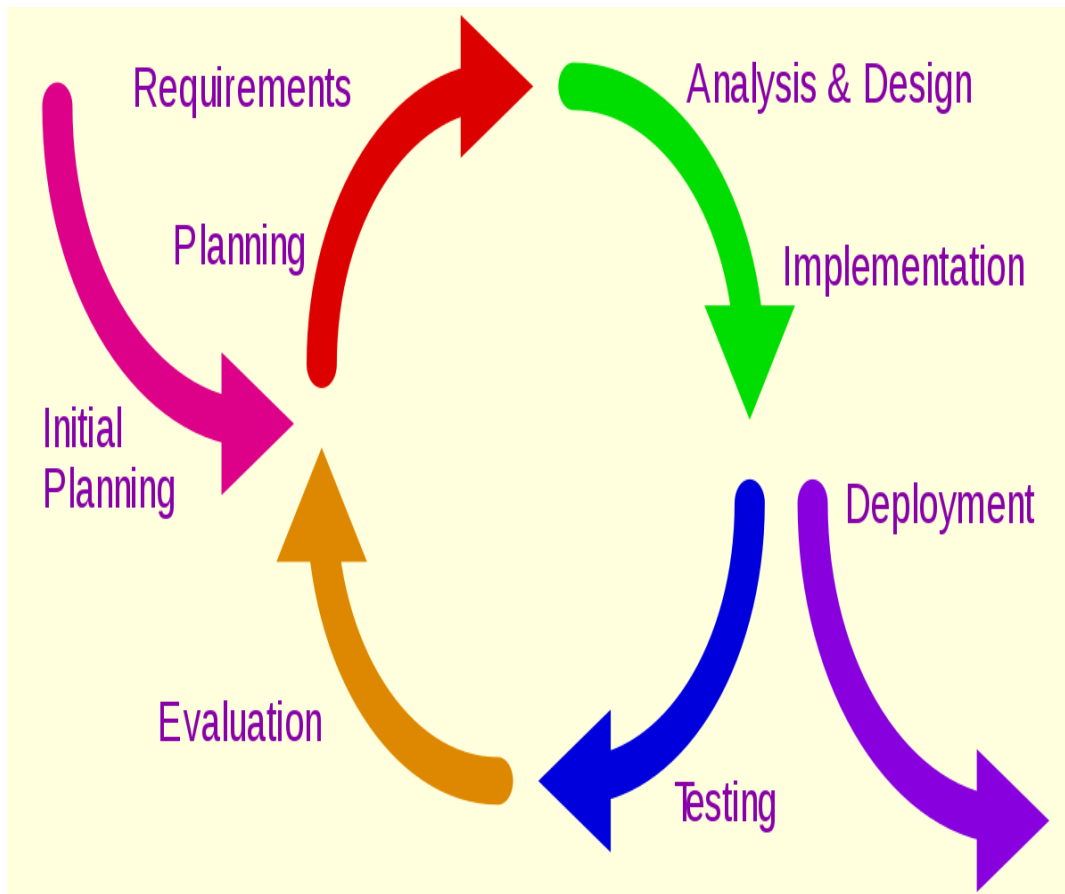


Figure 1: Incremental and iterative development process model diagram

Incremental and Iterative: The main reason to use incremental and iterative diagram is we can divide the whole project in modules. We can go back and perform the task if it is necessary. It is much effective model than other software development life cycle. In other diagram such as waterfall diagram we cannot start other work until and unless the one module complete its task and we cannot go back to any phase if we want to change in that

section. But in incremental and iterative model, we can change our design whenever we want to change and perform our task.

3.4 Development and coding

For the development of the project, sublime text editor IDE was used. It is simple and very powerful IDE and many programming language can be coded in it including html, CSS, JavaScript, python, C, C++, java etc.

For the development of Front-end architecture HTML, CSS, JavaScript was used. To make the page responsive, Bootstrap was used. At the back-end, Django web framework was used which very powerful MVC framework which is completely written in python. Django framework is the backbone of this project. The SQLite DBMS is used for dynamic page so that all record is managed properly with CRUD functionality. Socket programming is used to message in networks. Textblob naïve bayes classifier is used to classify the text into good or bad status.

3.5 Testing

Testing is the next step after development of the project .In this phase the system is tested .The basic technology currently used are HTML, CSS, JavaScript, PHYTHON.As a Part of testing, the valid code is used and it should meets the current web development standards - this is helpful when checking for issues such as cross browser compatibility.

3.6 Technology to be used

- CSS and HTML:

CSS and HTML is used to provide the structure of a website. Hypertext Markup Language (HTML) is the standard markup language for documents designed to be

displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript.

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language like HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

- JavaScript:

JavaScript is used for event handlers and behaviors to add user interaction. JavaScript (JS) is a lightweight, interpreted, or just-in-time compiled programming language with first-class functions. While it is most well-known as the scripting language for Web pages, many non-browser environments also use it, such as Node.js, Apache CouchDB and Adobe Acrobat. JavaScript is a prototype-based, multi-paradigm, single-threaded, dynamic language, supporting object-oriented, imperative, and declarative (e.g. functional programming) styles.

- Python:

Python is used in backhand development. Python is an interpreted, high-level, general-purpose programming language. Created by Guido van Rossum and first released in 1991, Python's design philosophy emphasizes code readability with its notable use of significant whitespace. Its language constructs and object-oriented approach aim to help programmers write clear, logical code for small and large-scale projects.

- Django:

Django is a Python-based free and open-source web framework, which follows the model-template-view (MTV) architectural pattern. It is maintained by the Django

Software Foundation (DSF), an independent organization established as a 501(c)(3) non-profit.

Django's primary goal is to ease the creation of complex, database-driven websites. The framework emphasizes reusability and "plug ability" of components, less code; low coupling, rapid development, and the principle of don't repeat yourself. Python is used throughout, even for settings files and data models. Django also provides an optional administrative create, read, update and delete interface that is generated dynamically through introspection and configured via admin models.

- SQLite :

SQLite is used for database for storing all the application data. SQLite is a relational database management system (RDBMS) contained in a C library. In contrast to many other database management systems, SQLite is not a client-server database engine. Rather, it is embedded into the end program.

- Web Socket

Web Socket is used for real time client –server-client communication. Web socket is bidirectional communication protocol and is always open after the connection is set. So server and client can communicate to each other at any time. This amazing feature is used in our system in which whenever admin creates new update of live game on the server side, then client browser get the updates immediately through web socket channel without client browser request. So updates are shown to the client browser in real time. Ajax might be an option to this job but due to the large number of requests product by many clients in the server, server may hang up or crash.

- Sentimental Analysis:

In this system we have presented an implementation of Naïve Bayes' algorithm of sentiment analysis to classify user comments into negative and positive. Sentiment Analysis is the most common text classification tool that analyses an incoming message and tells whether the underlying sentiment is positive, negative our neutral. Naive Bayes Classifier is one of the most intuitive yet popular algorithms employed in supervised

learning, whenever the task is a classification problem. We have use text blob library of python to implement the sentimental analysis which is built on the shoulders of NLTK and Pattern. TextBlob is a Python (2 and 3) library for processing textual data. It provides a simple API for diving into common natural language processing (NLP) tasks such as part-of-speech tagging, noun phrase extraction, sentiment analysis, classification, translation, and more. A big advantage of this is, it is easy to learn and offers a lot of features like sentiment analysis, pos-tagging, noun phrase extraction, etc.

3.7 Required Tools

The tools used for documentation, designing and developing, testing are listed below in table:

TOOLS	PURPOSE
Sublime	For Code Editor IDE
Python	Python programming
Django	Web backend framework
SQLite workbench	SQLite Server

Table 1: Tools used

4. Design and Analysis

Requirement Analysis

Requirement analysis, in software encompasses those tasks that go into determining the need and condition to meet for a new or altered product, taking account of possibly conflicting requirement of the various stakeholders, such as users. It is the early stage activity of requirements engineering which encompasses all activities concerned with eliciting, analyzing, documenting, validating and managing system requirement. There is requirement modeling of requirement analysis.

Requirement modeling:

4.1 Use case diagram:

Use case diagram presents an outside view of the manner the element in a system behave and how they can be used in the context. In our system use case diagram we have two actors: Admin and client.



Figure2: Use case Diagram

There are two primary actors in our project criclive. The first one is admin. Registration of admin is done by super-user so to enter system admin login to the system and enter. Admin can perform CRUD functionality. Admin can create news, photos, videos, for the client and also update the live score to the game. Admin also update the schedule for the upcoming game. There is a section team in which information about the team is given; it is also updated by admin. In which way admin manage the backend to the client interface. Similarly, another actor is client. Client enters to the web application and views the news, photos about the cricket match. They also see the videos. Client have schedule

for the upcoming game that is going to held. They can also have information about the teams. Users register and login to participate in commenting in the live updates about the game. Ranking is also updated by admin which is visible to the client. Users can see whether their comment is good and bad status as sentimental analysis is also used in this system. We have use text blob library of python to implement the sentimental analysis which is built on the shoulders of NLTK and Pattern. TextBlob is a Python (2 and 3) library for processing textual data. Subscription is another function in this web application as notification is provided to the users who subscribe the web application.

4.2 Data modeling

Data modeling defines the primary data objects to be processed by the system, the composition of each data object and their attributes, current location of objects, the relationship between each object and other objects, and the processes to transform each object. Data modeling methods make use of the entity relationship diagram that defines all data that are entire, stored, transformed and produced within an application.

4.3 Entity Relationship Diagram (ERD)

An entity relationship diagram (ERD) shows the relationships of entity sets stored in a database. An entity in this context is an object, a component of data. An entity set is a collection of similar entities. These entities can have attributes that define its properties. Here user, comment, news, videos, photos, game live score, schedule, ranking, team, players are the entity and they have different attributes. Every attributes is defined by the corresponding set of values, called domain. The logical association among entities is called relationship. There are many users to the web application. Admin can create news, photos, videos, for the client and also update the live score to the game. Admin also update the schedule for the upcoming game. Client enters to the web application and views the news, photos about the cricket match. They also see the videos. Client have schedule for the upcoming game that is going to held. They can also have information

about the teams. Users register and login to participate in commenting in the live updates about the game. Ranking is also updated by admin which is visible to the client.

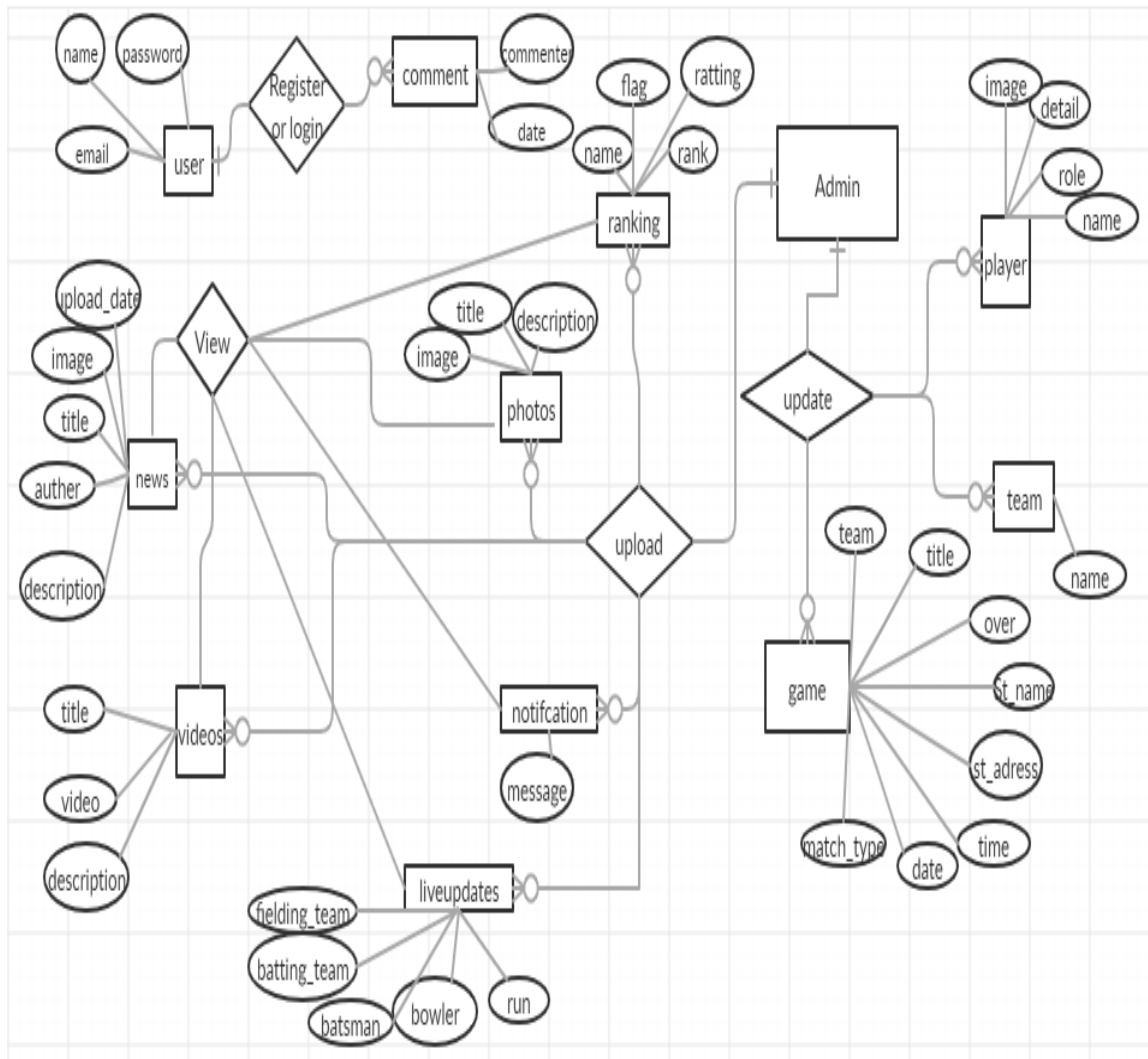


Figure 3: Er diagram

4.4 Class Based Modeling:

In software engineering, a class diagram in the Unified Modeling Language (UML) is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations (or methods), and the relationships among objects.

In this application there are many classes and their attributes. They are as follows in diagram. There is a different class in our system. The classes are comment, user, team, game update, schedule, player, team, photos category, news, news category and many more. The users of the system are client and the admin. The admin can be the owner of the web application. The responsibility of the admin is to create, update and delete the news, photos videos, schedule for upcoming game, ranking provided by the ICC ranking, information about the teams members and the live scores update about the games. Client can view all the information updated by the admin. Client can register and login to participate in commenting. Users' comment is classified in good and bad status comment with the help of sentimental analysis. We have used text blob library of python to implement the sentimental analysis which is built on the shoulders of NLTK and Pattern. TextBlob is a Python (2 and 3) library for processing textual data. And clients can subscribe to the web application to get notice about the live game.

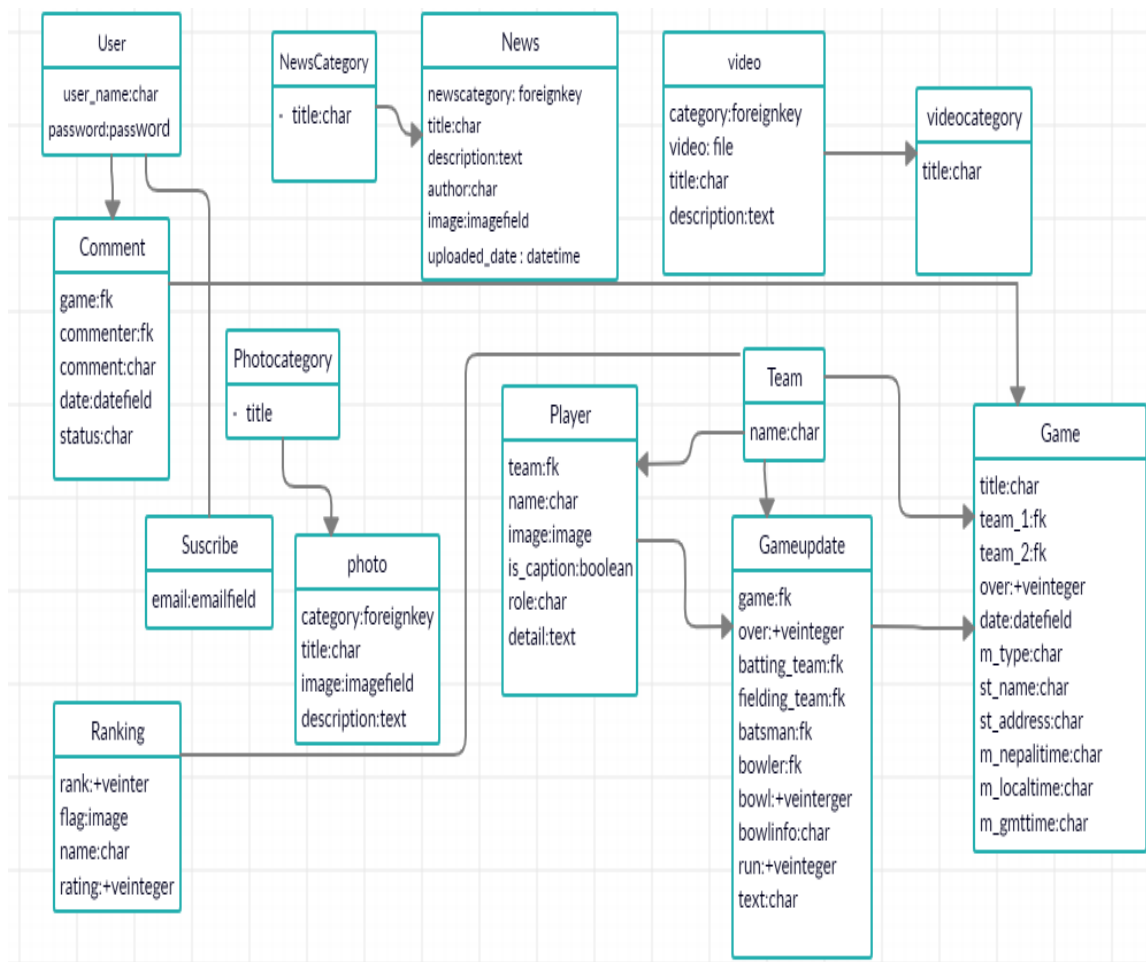


Figure 4: Class diagram

4.5 Flow Oriented Modeling

Data Flow diagram

Data flow diagram is graphic representation of the flow of data in an information system. It is capable of depicting incoming data flow, outgoing data flow and stored data. Here we have Level 0 DFD. Highest abstraction level DFD is known as Level 0 DFD, which depicts the entire information system as one diagram concealing all the underlying details. Level 0 DFDS are also known as context level DFDS

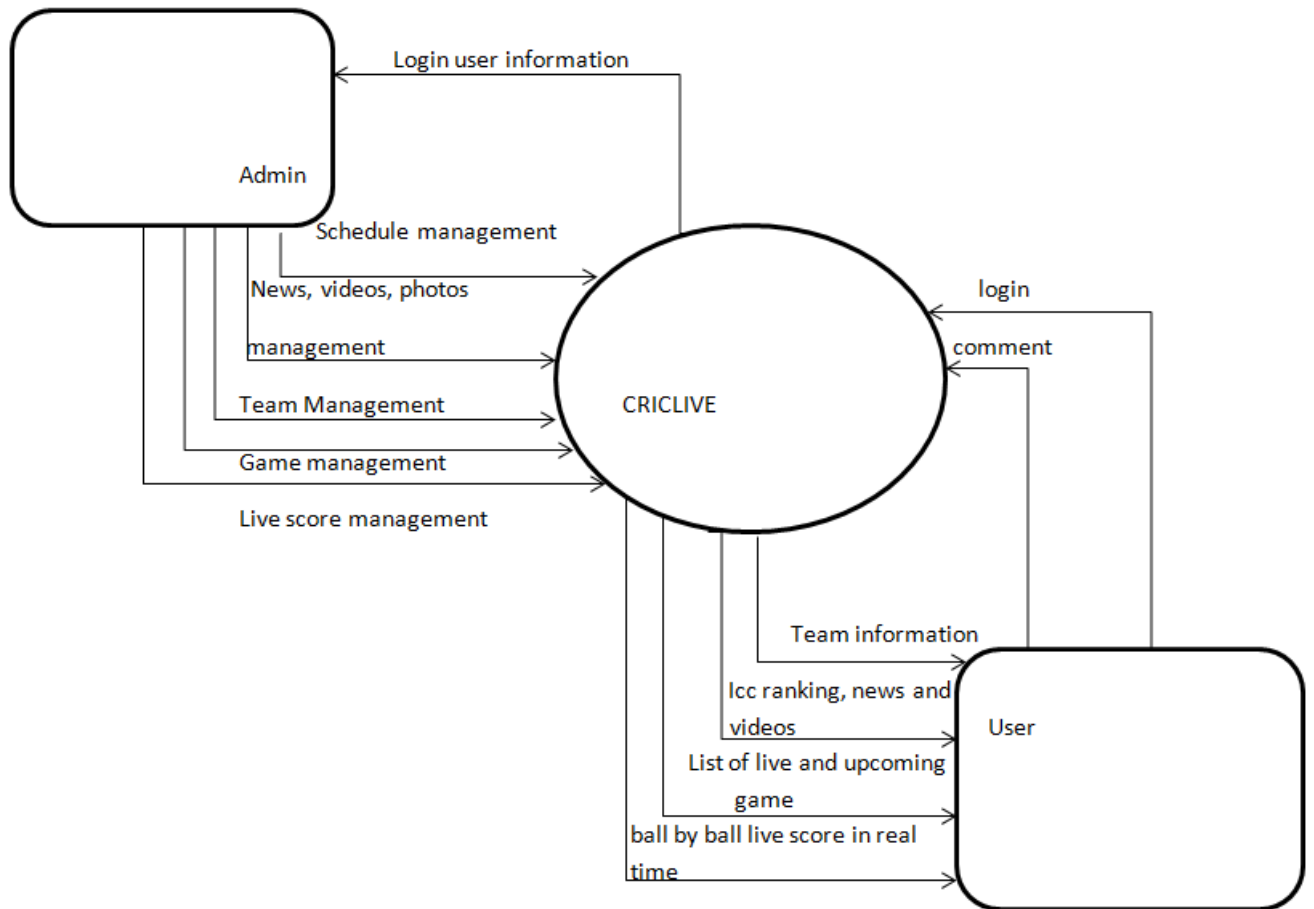


Figure 5: Context diagram

"Criclive" has admin and users panel. Admin panel and perform news, videos, photos management, schedule management, team management, live score management, game updates management. And user panel/ client panel and login to the system, participate in comment, have team information, can view ranking, news and videos about the team, and can see the live update of the cricket matches.

4.6 Activity Diagram

In Unified Modeling Language (UML), an activity diagram is a graphical representation of an executed set of procedural system activities and considered a state chart diagram variation. Activity diagrams describe parallel and conditional activities, use cases and a system function at a detailed level. An activity diagram is represented by shapes that are connected by arrows. Arrows run from activity start to completion and represent the sequential order of performed activities. Black circles represent an initial workflow state. A circled black circle indicates an end state. Rounded rectangles represent performed actions, which are described by the text inside rectangle. A diamond shape is used to represent a decision, which is a key activity diagram concept. Upon activity completion, a transition (or set of sequential activities) must be selected from a set of alternative transition for all use case. Synchronization bars indicating the start or completion of concurrent activities are used to represent parallel sub flows.

Activity diagram for client (users/audience)

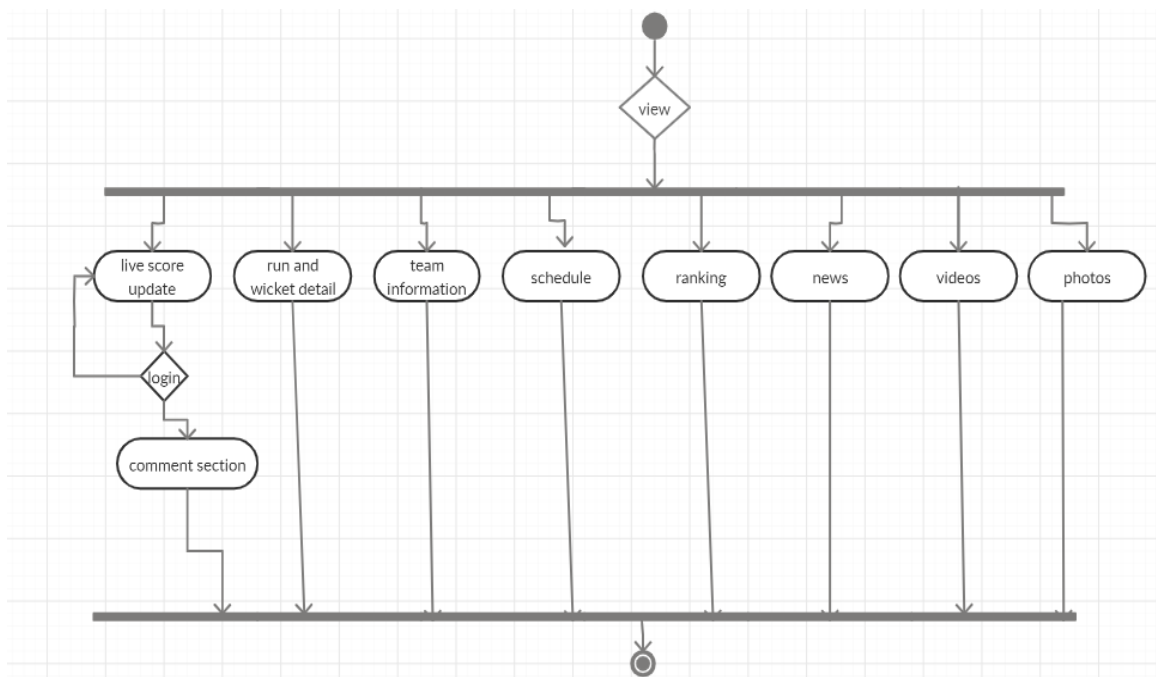


Figure 6: Activity diagram for user

Clients can views various information page like news, photos, videos uploaded by admin. They can also participate in commenting in live game. They can see live updates of the game (match) in real time.

Activity diagram for admin

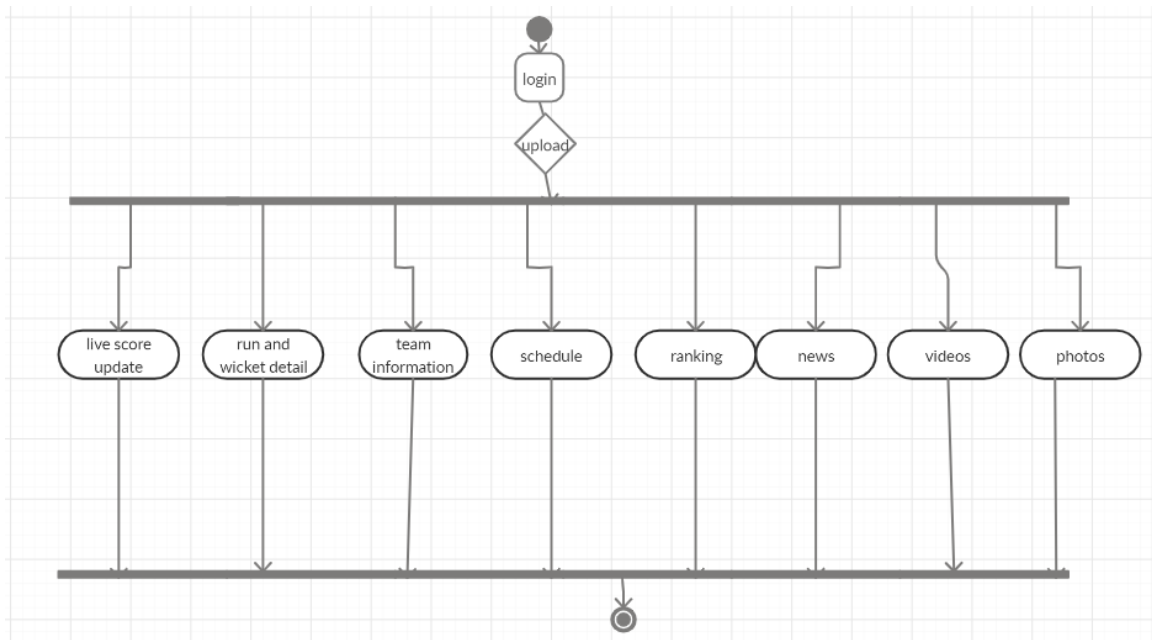


Figure 7: Activity diagram for admin

Admin can create, delete, read and update any file in the project. Admin can upload news, videos and photos about the latest games in the web application.

5. Deliverables

The home page, login page, registration page have created. In this web application admin can upload/provide updates to the clients. There are two users in our criclive, admin and users (client/audience). Admin can create, delete, read and update any file in the project. Admin can upload news, videos and photos about the latest games in the web application. While clients can views various information page like news, photos, videos uploaded by admin. They can also participate in commenting in live game. They can see live updates of the game (match) in real time. There is two panel in our system admin and client panel.

Admin panel

Registration of admin is done by super-user so to enter system admin login to the system and enter. The admin panel is the most important section of this web application. In this panel admin can create, view list, update, and delete the news, games, videos, and photos, schedule and ranking about the crickets. There is also live score game update form in admin panel in which admin can updates the live games.

Live score game update form: A simple form for live score update have built. We have use web socket application to upload the live updates about the match in real time. Web socket is bidirectional communication protocol and is always open after the connection is set. So server and client can communicate to each other at any time. In this form we have different category like over, balls, batting team, fielding team, bowler, batsman, types of balls, text (commenting for matches) and also run types. While selecting the fielding team and batting team the form automatically show the bowlers and batters of the respective team. While selecting wide and no ball the run automatically increase. Similarly after each run ball also increase automatically. If we select one of the team for batting ,the another fielding team automatically selected E.g. if there is match between India and Nepal , then if admin select batting team Nepal the form automatically save fielding team India. Similarly the players interchange automatically after they take the run. The balls and overs also change. Once the ball number goes to the six in next ball the over change and also the ball count reset to the one. One of the task that admin need to do

is entering the bowler name after each over and changing the batters after they been out from the game.

Photos: There is photos section in this web application where admin upload photos about the cricket matches. In the category section admin can include different category for photos for e.g. national photos, international photos. Admin can view the list of photos category and also update or delete as per necessary.

News: There is a section where news about cricket is uploaded. News is categories into two section national news, international news. User can also go detailed to read the news if they want to. The news is separated into different category by admin. Similarly as in photos section admin can also update or delete the news. Admin can view the list of the news uploaded by them.

Video: Another section in admin panel is video section. Video about the cricket matches or related is uploaded by the admin which also include the description of the videos. Admin can see the list and delete the videos uploaded by them.

Schedule: Schedule is another section in admin panel. Admin can update the upcoming game schedule. The schedules section consist the teams which are going to play against each other, stadium in which the matches is going to held. Local time, National time and global time is also in the schedule section from which users can have information about the upcoming games.

Team: Team is another section of this web application. In team section there is different country team.

Players: Players consists of the player detail. Admin can create, update, and delete the players' information.

Ranking: Ranking is categories as ODI, Test, T20 ranking which is updated once and remain same for certain period of time which is also create by admin according to the ICC ranking.

Notification: Notification is provide to the users who subscribe to the web application by the admin for the live scoring games. After the game is created in admin panel,

notification is sent automatically to the users who have subscribed to the system. Notification consists of the matches date, teams who have participate in the match.

Client (users/Audience) panel:

Registration: If the users are new and they want to participate in commenting then they can create their account by registration in our system.

Login: All users who want to participate in commenting can access our system via a login page. Upon logging in, the system automatically executes user identification validating process. If both the user name and password are considered valid, the user enters the system. Otherwise, an error message is prompt the user to attempt the login process again.

Subscription: Those users who want the update about the live matches can get notification after they subscribe to our system.

Commenting: It is also another section of our web application. Users who wants to take participate in comments have to register themselves first. After that they can comment in live game. The comment of the users is categories into good and bad status comment with the help of sentimental analysis. We have use text blob library of python to implement the sentimental analysis which is built on the shoulders of NLTK and Pattern. TextBlob is a Python (2 and 3) library for processing textual data.

Live score: Live updates updated by the admin are shown to the user in live score section. The update consists of the ball by ball updates. Users can have the idea of every ball updated by the admin. This section consists of the comment section in which user can comment in the live matches.

Photos: There is photos section in this web application where admin upload photos about the cricket matches. In the category section admin can include different category for photos for e.g. national photos, international photos. Admin can view the list of photos category and also update or delete as per necessary. The user of the web application can see the photos and also can get some description about the photos

News: There is a section where news about cricket is uploaded. News is categories into two section national news, international news. User can also go detailed to read the news if they want to. The news is separated into different category by admin. Similarly as in photos section admin can also update or delete the news. Admin can view the list of the news uploaded by them.

Video: Another section in admin panel is video section. Video about the cricket matches or related is uploaded by the admin which also include the description of the videos. Admin can see the list and delete the videos uploaded by them and user can see the video which they like.

Schedule: The schedule updated by admin can be view by the users and can have idea about the upcoming games.

Team: Team is another section of this web application. In team section there is different country team we go inside we can see the detailed of the team members' information.

Ranking: Users can see the ranking of the different team members in this section.

6. Output

- It give live score update in Real-time.
- It provide upcoming games information and scheduling
- It provides comment on live game.
- It provides information about team.
- Email subscription and notification is provided for regular user.
- It provides ICC Ranking, Photo, videos and News about game.
- It classifies users comment whether it is good or bad status using sentimental analysis (Naive Bayes classifier). We have use text blob library of python to implement the sentimental analysis which is built on the shoulders of NLTK and Pattern. TextBlob is a Python (2 and 3) library for processing textual data.

7. Future Extension

- It can have Live streaming videos.
- This system is now built for cricket only; in future other sports (football, basketball etc.) can be implemented.
- Authority other than admin can be given.

8. Project Task and Time Scheduling

The Project schedule have designed as per requirements and constraints involved. This project is scheduled completed in about 3 months 10 days. Requirement analysis has given more emphasis. Research and database management has done first and well documented. Debugging and Testing has done prior to the completion of the project

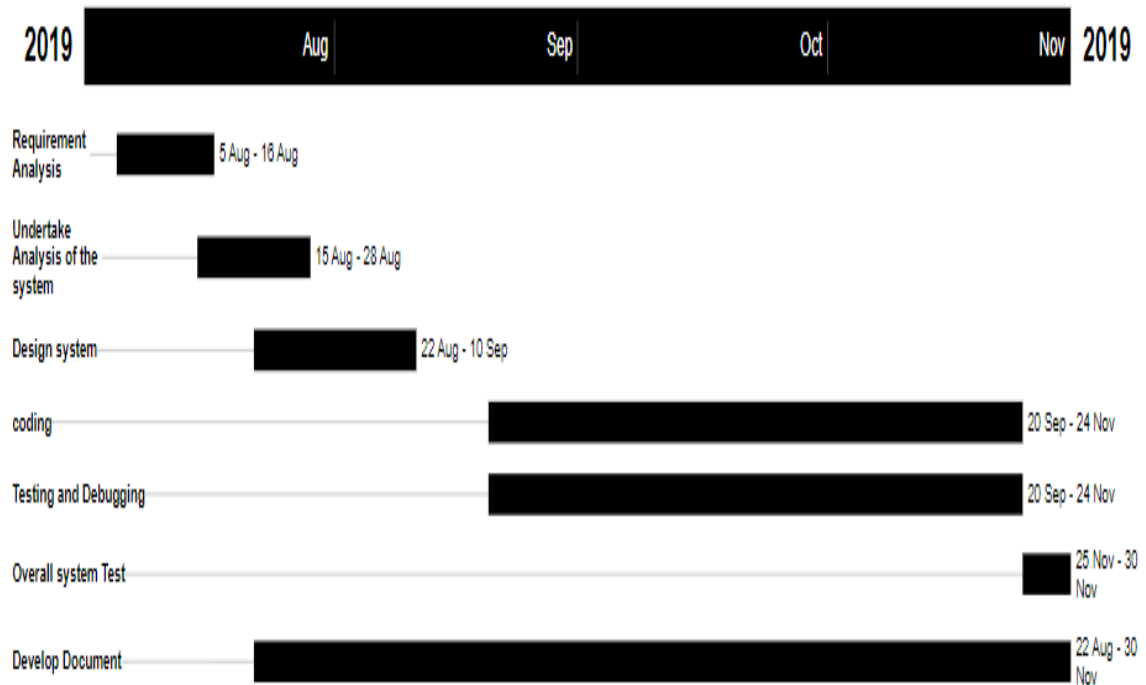


Figure 8: Gantt chart

Task	Approximate Duration (In days)
Requirement Analysis	10
Undertaken Analysis of the System	10
Design System	14
Coding	46
Testing and debugging	46
Overall System Test	5
Develop Document	72

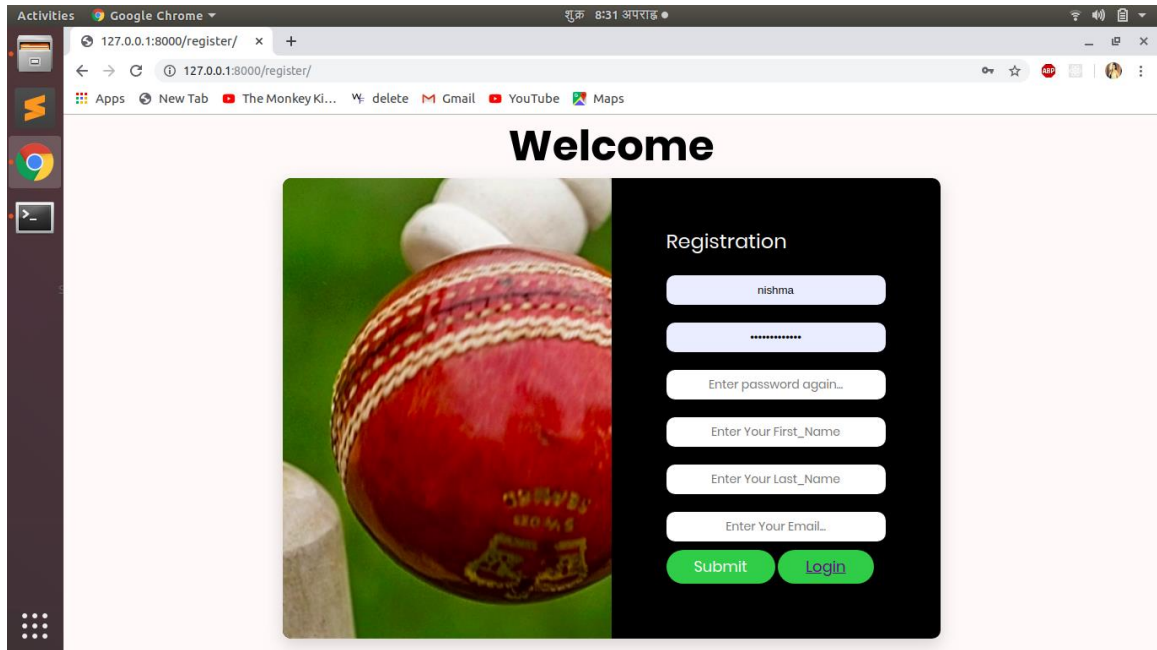
Table 2: Time schedule

References

- [1] "Wikipedia"[online].Available <https://en.wikipedia.org/wiki/CricBuzz> [Accessed 1-Aug-2019]
- [2] "Literature review" [online].Available <https://cricnepal.com/> [Accessed 1-Aug-2019]
- [3] "Literature review" [online].Available <https://www.espncricinfo.com/> [Accessed 1-Aug-2019]
- [4] "Literature review"[online].Available <https://www.cricbuzz.com/> [Accessed 1-Aug-2019]
- [5] "Literature review"[online].Available <https://www.reddit.com/r/Cricket/> [Accessed 1-Aug-2019]
- [6] "Literature review"[online].Available <https://www.hotstar.com/in> [Accessed 1-Aug-2019]
- [7]"SDLC"[online].Available https://www.google.com/search?safe=active&biw=1366&bih=625&tbm=isch&sa=1&ei=MmBEXeT3JZmS9QOiwanIBQ&q=incremental+and+iterative+model&oq=incremental%2Band%2Biterative&gs_l=img.1.0.0i30l5.3323.23680..25833...0.0..1.290.4812.2-20.....14.....1..gws-wiz-img.hq3P7CTOTgQ#imgsrc=M0NqKQZTnFXCbM: [Accessed 2-Aug 2019]
- [8] "Class diagram definition"[online]. Available <https://www.visual-paradigm.com/guide/uml-unified-modeling-language/what-is-class-diagram/> [Accessed 9-Nov-2019]
- [9]"Textblob"[online].Available <https://textblob.readthedocs.io/en/dev/quickstart.html> [Accessed 15-Nov-2019]

Appendix

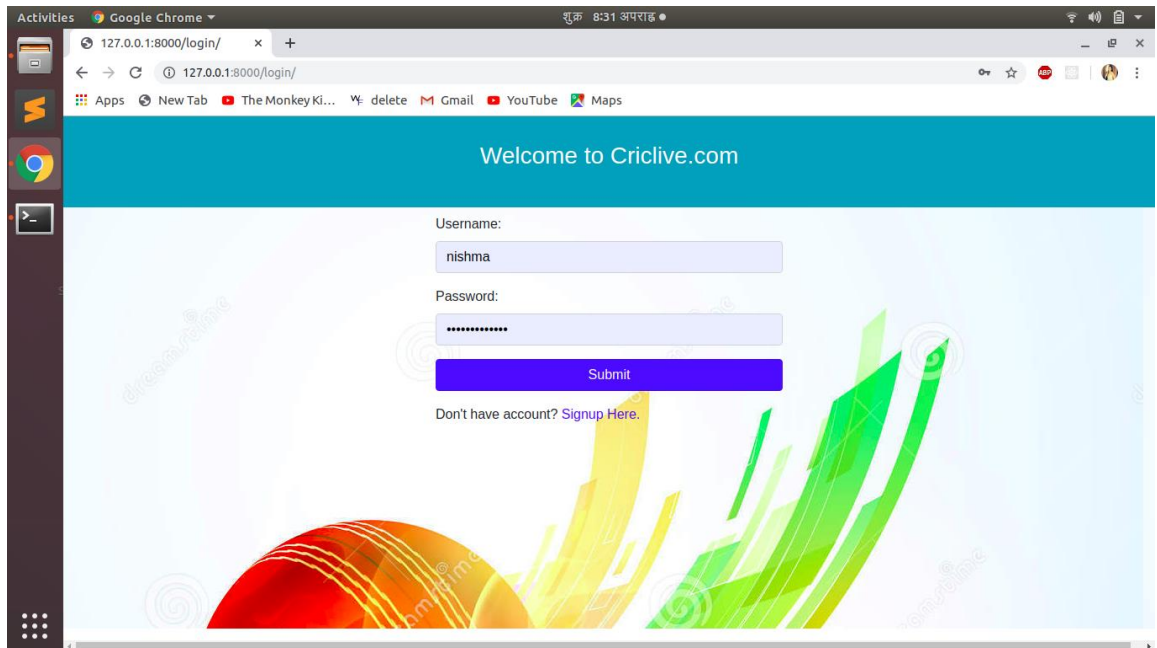
Screenshots



The screenshot shows a web browser window with the address bar displaying '127.0.0.1:8000/register/'. The page has a light pink background. On the left, there is a large image of a red cricket ball. On the right, there is a dark grey registration form titled 'Registration'. The form contains the following fields and buttons:

-
-
-
-
-
-
-
-

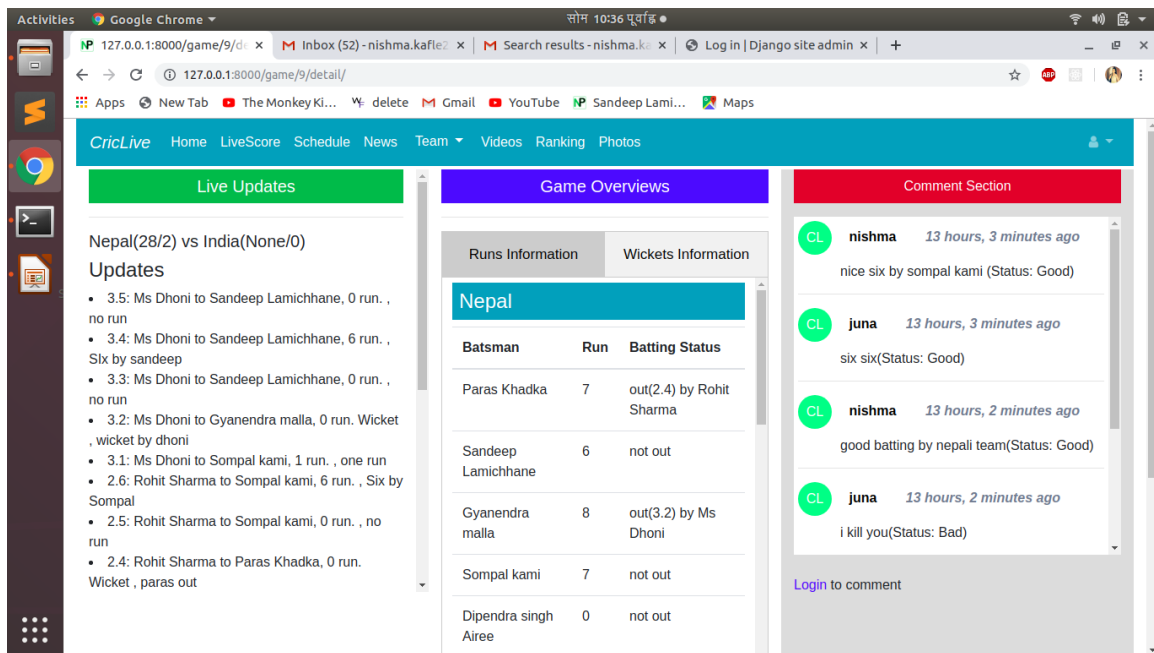
Screenshot 1: User registration form



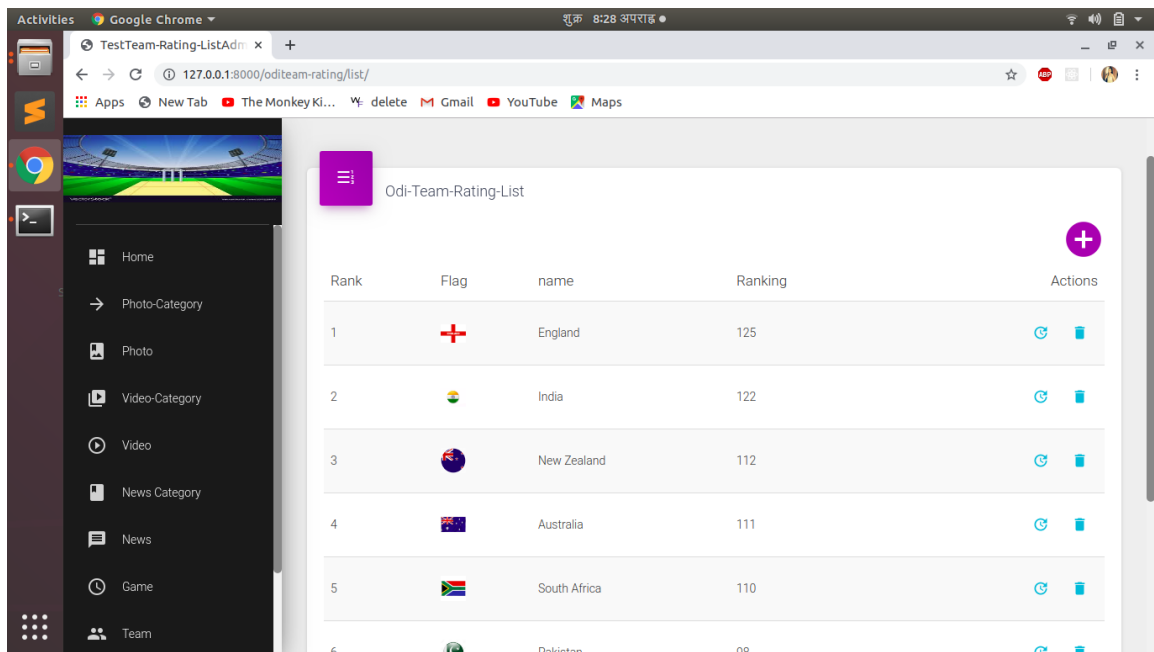
The screenshot shows a web browser window with the address bar displaying '127.0.0.1:8000/login/'. The page has a blue header with the text 'Welcome to Criclive.com'. Below the header, there is a login form with the following fields and buttons:

-
-
-
- [Don't have account? Signup Here.](#)

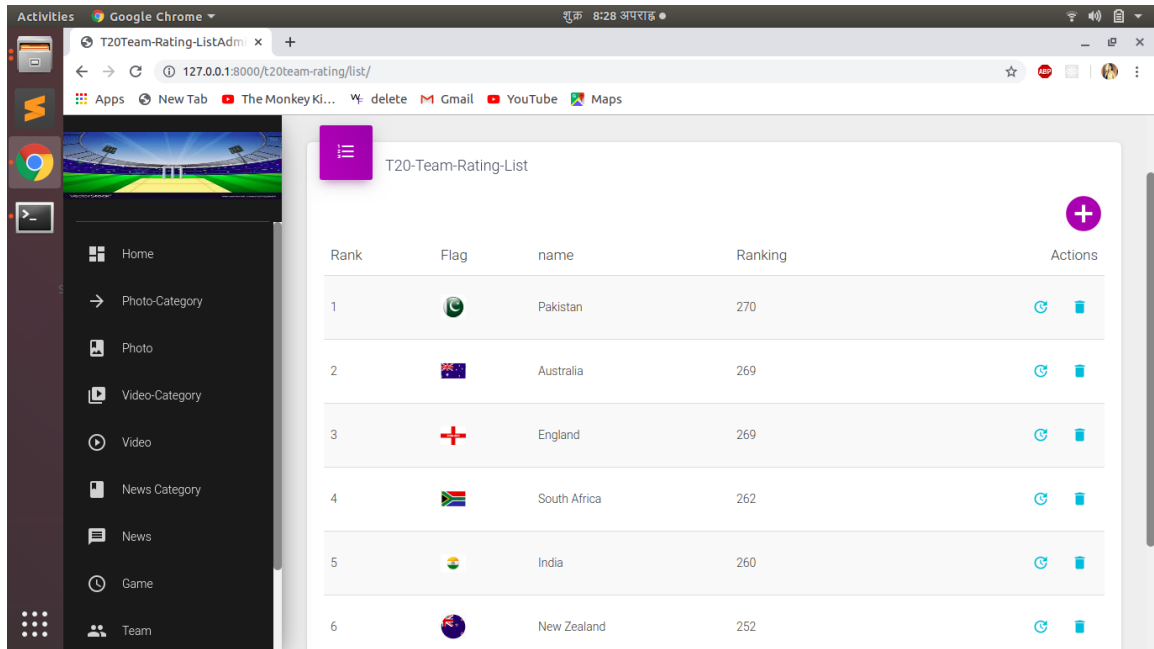
Screenshot 2: User and Admin login page



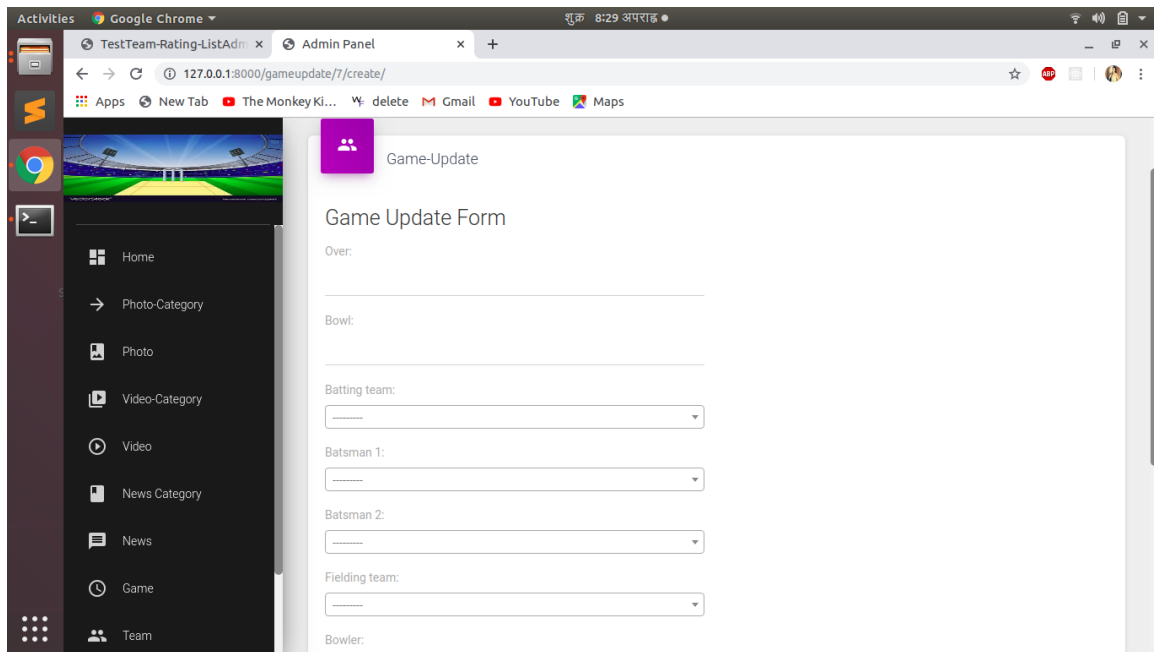
Screenshots 3: Game detail page



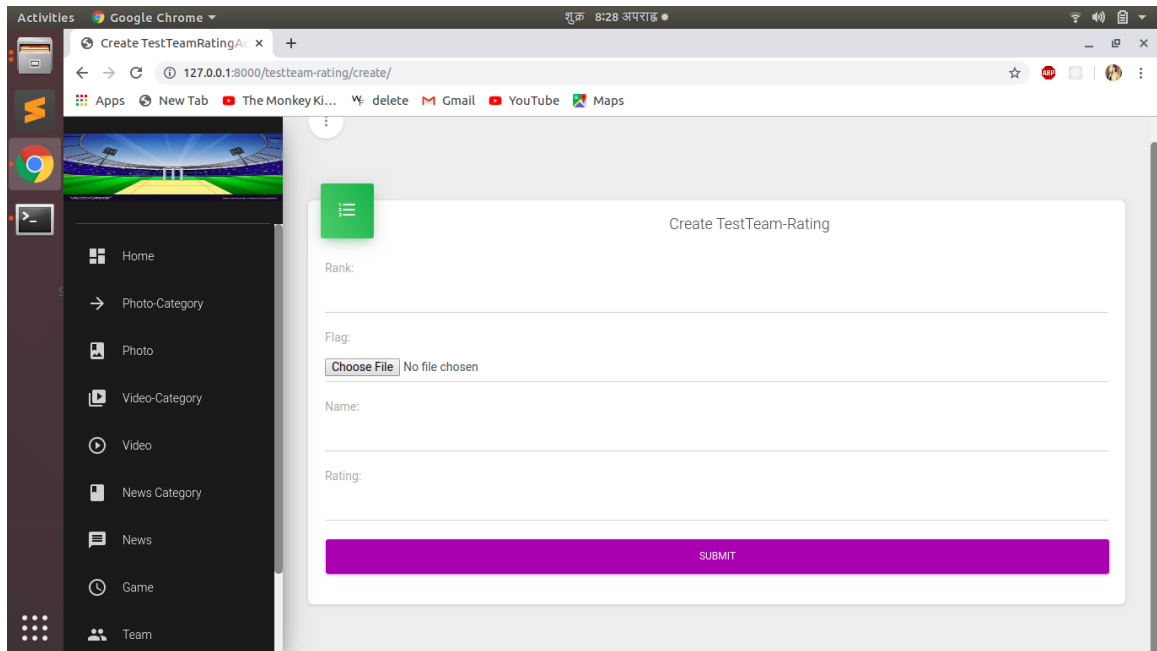
Screenshot 4: ODI Ranking List



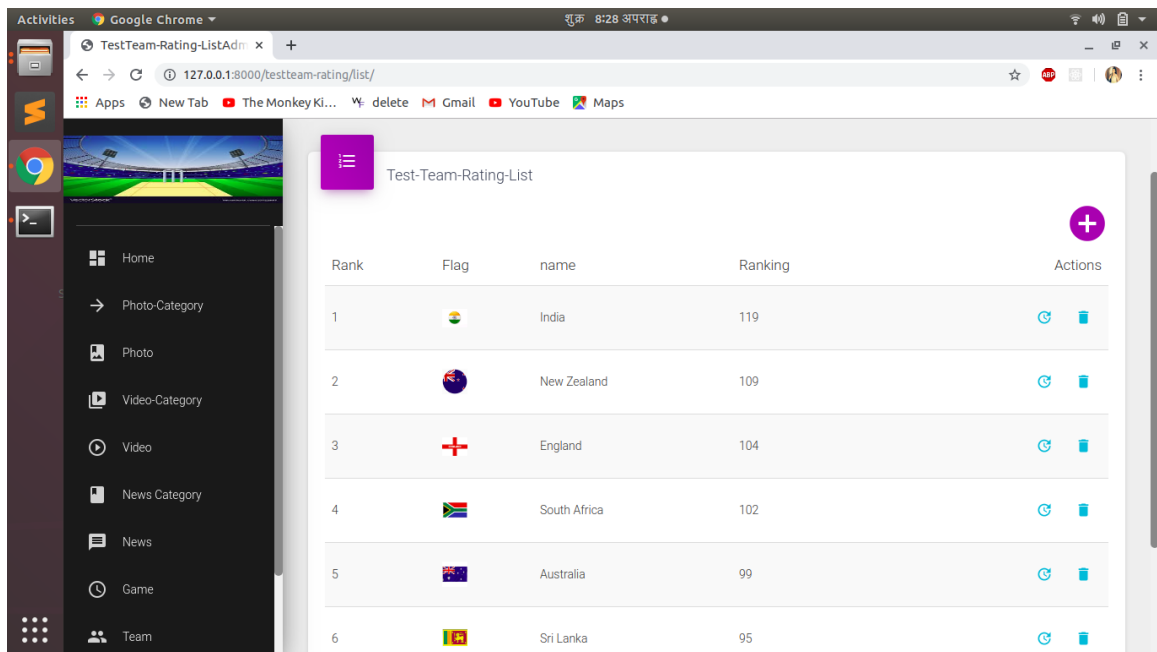
Screenshot 5: T20-Team list



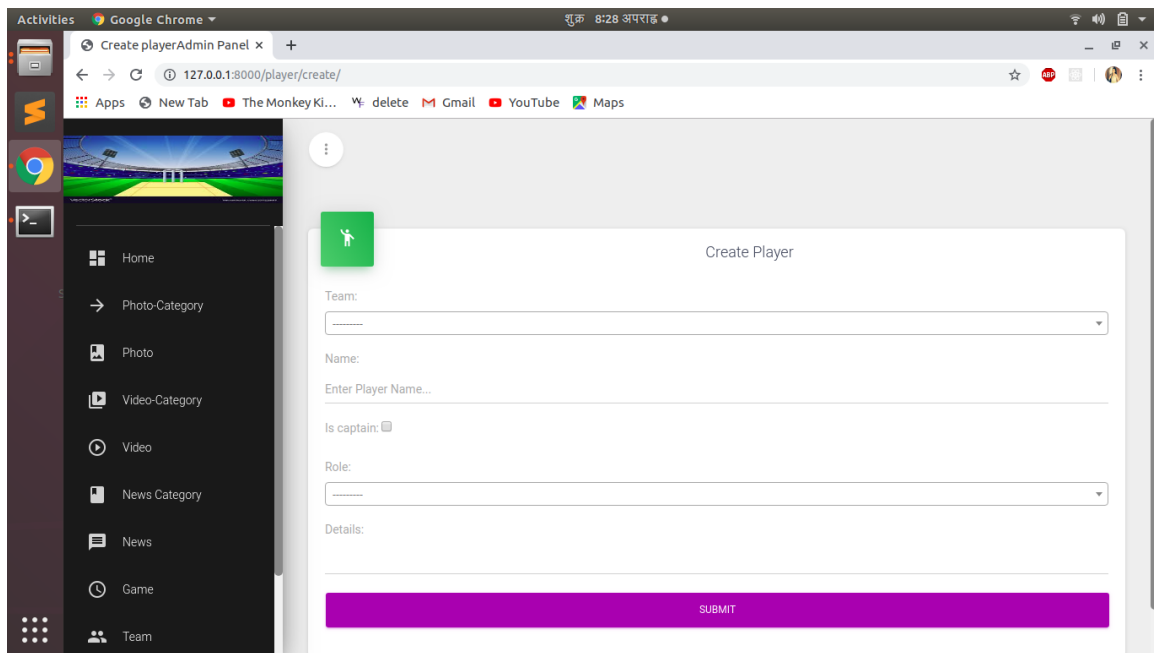
Screenshot 6: Game update form



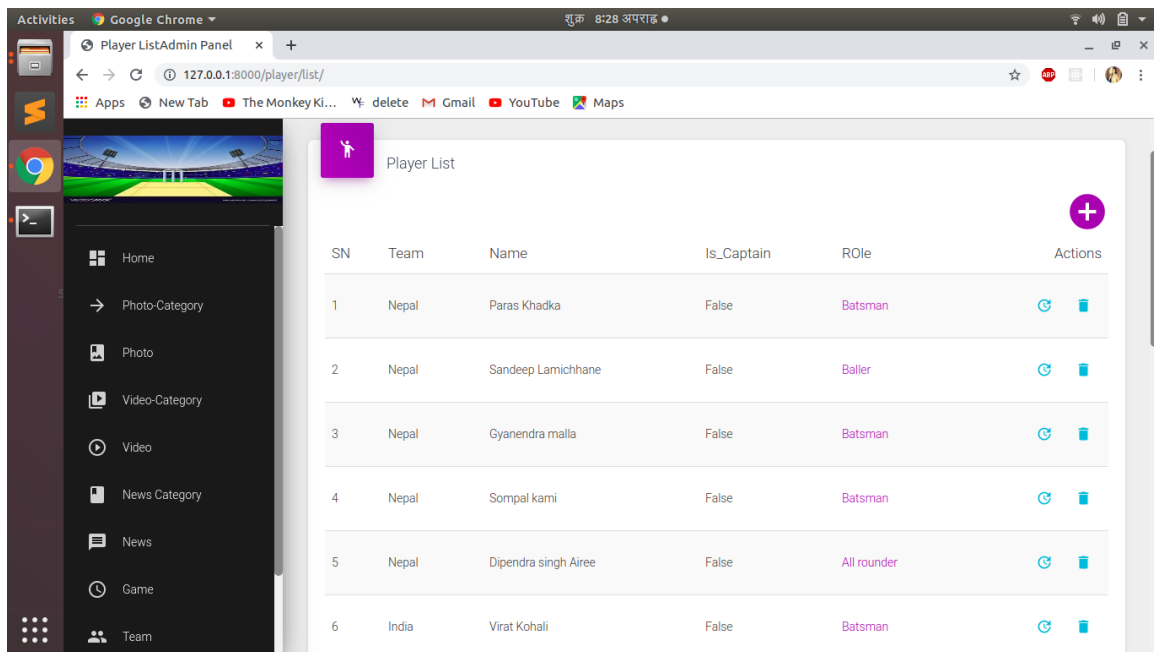
Screenshot 7: Team rating form



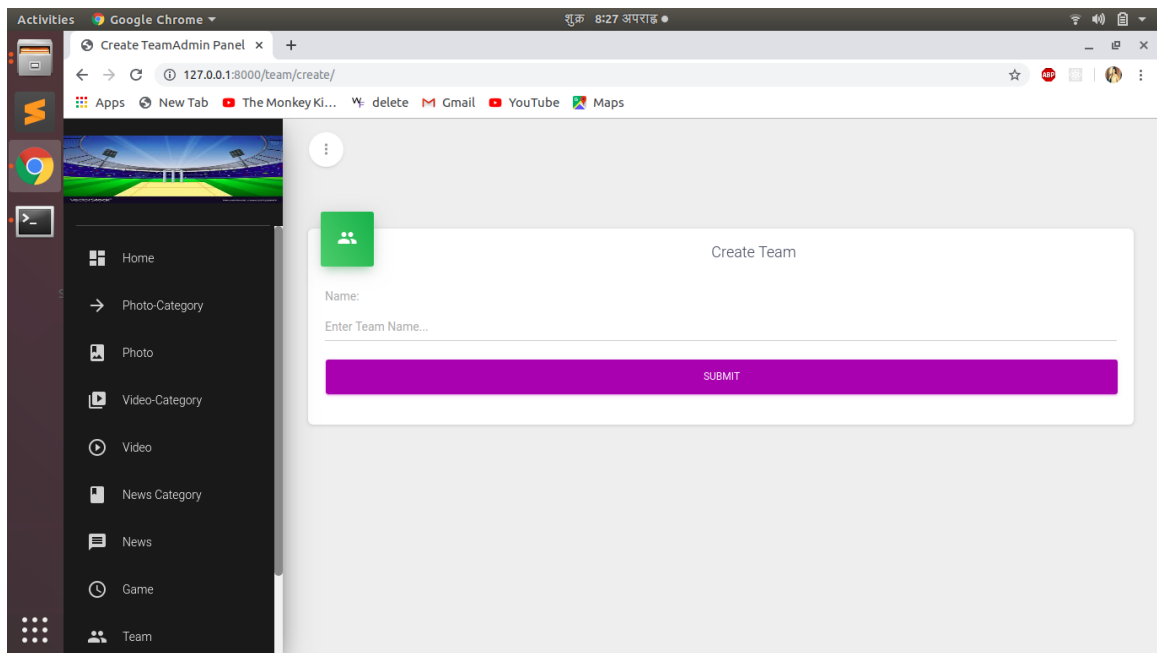
Screenshot 8: Test-Team Rating list



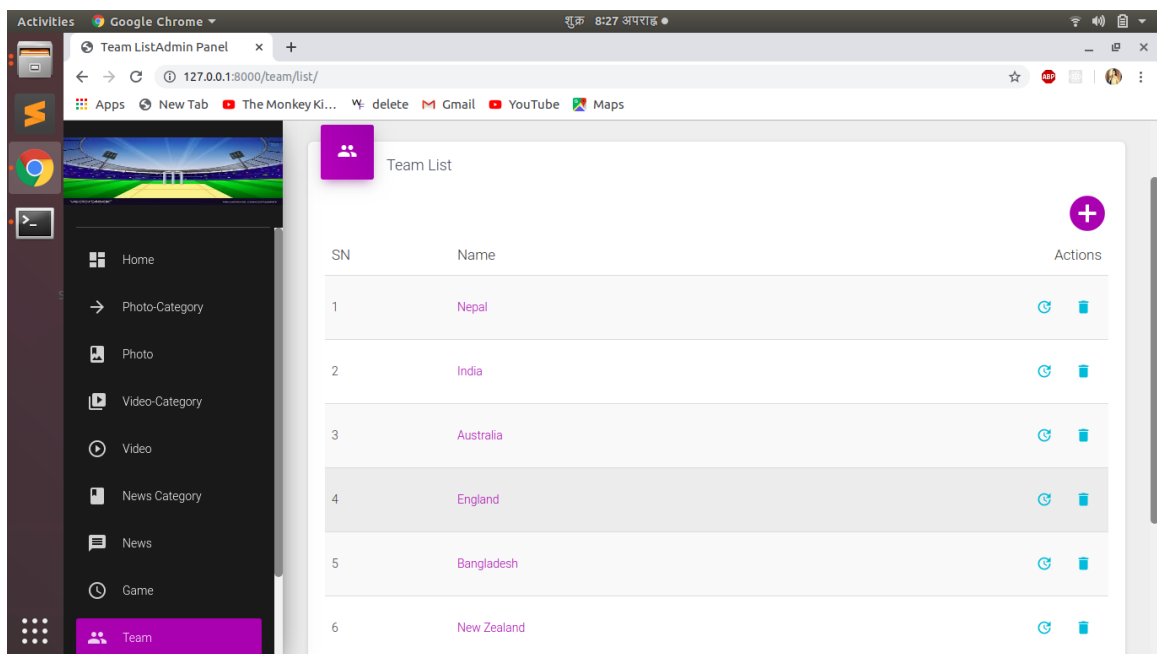
Screenshot 9: Create player



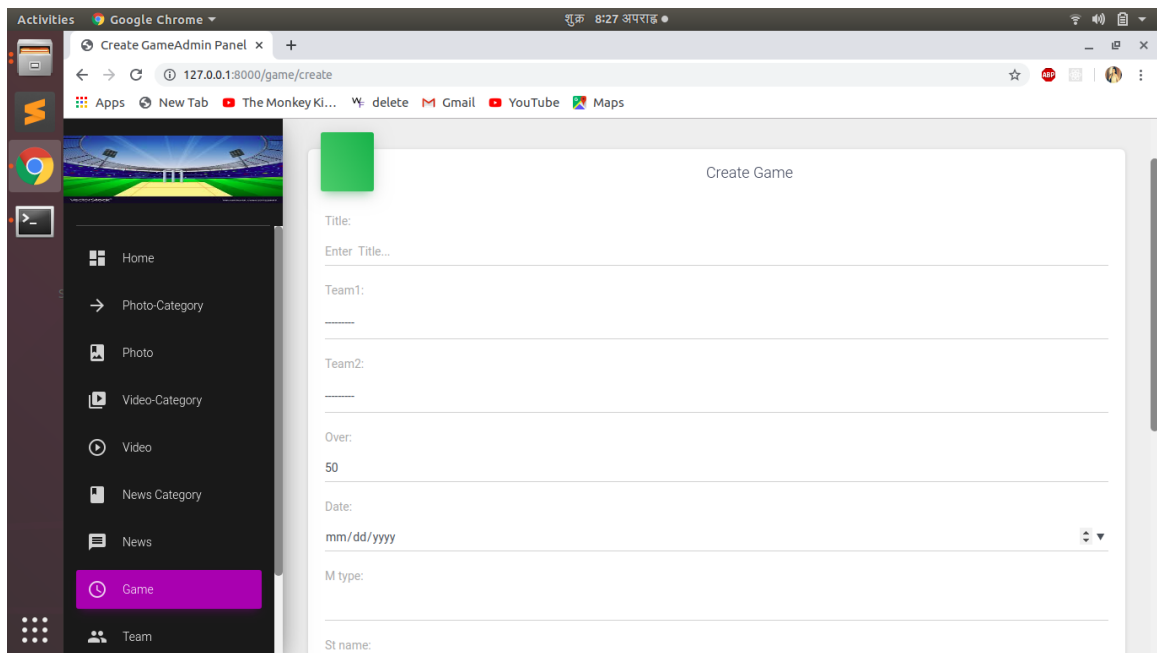
Screenshot 10: Players List



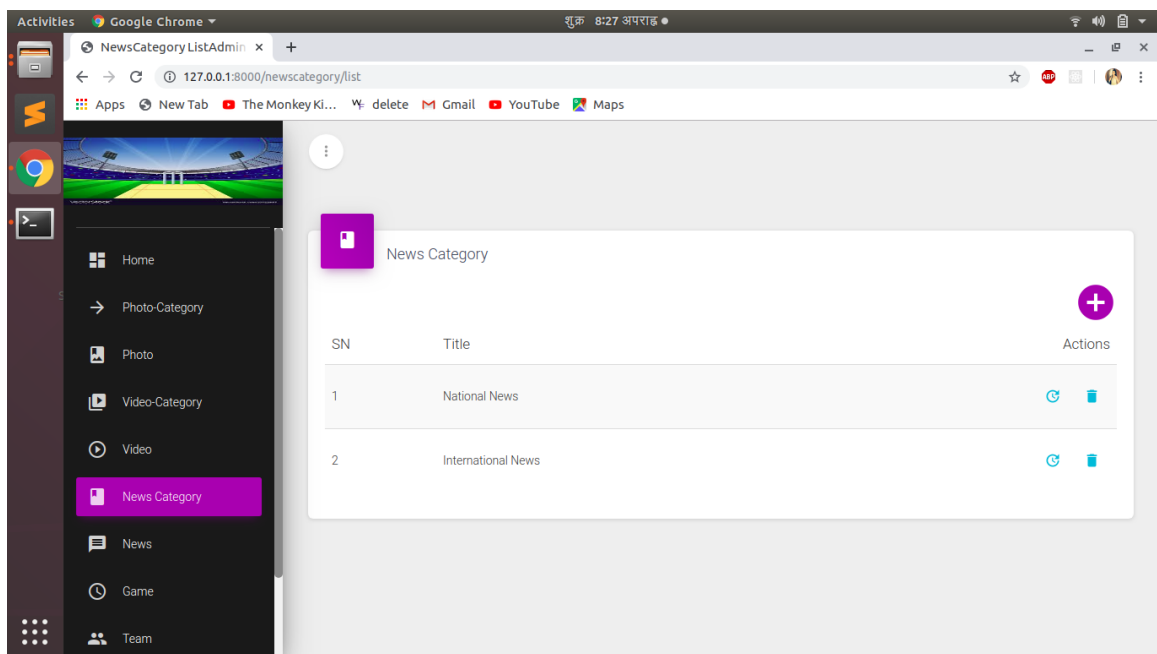
Screenshot 11: create team



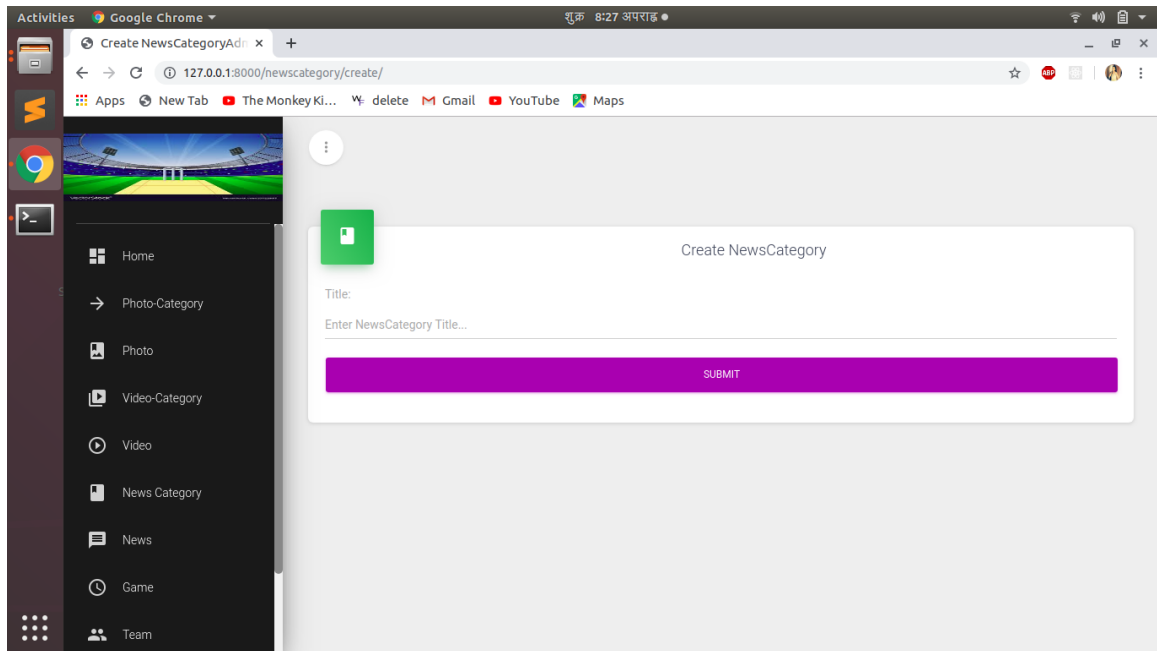
Screenshot 12: Team list



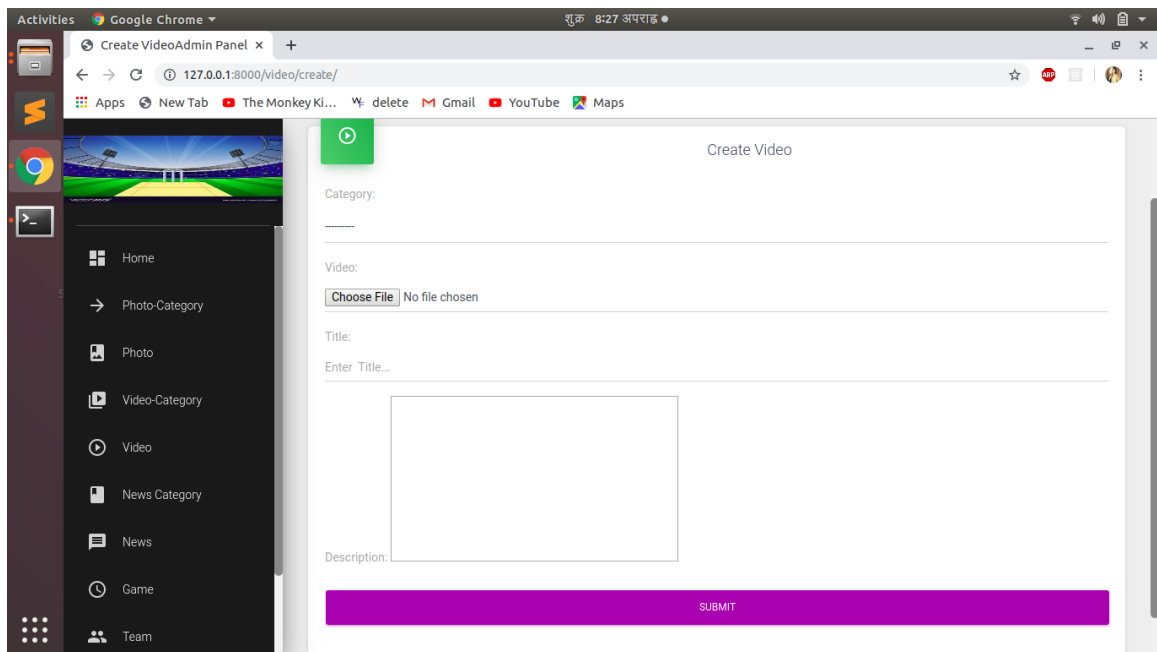
Screenshot 13: create game



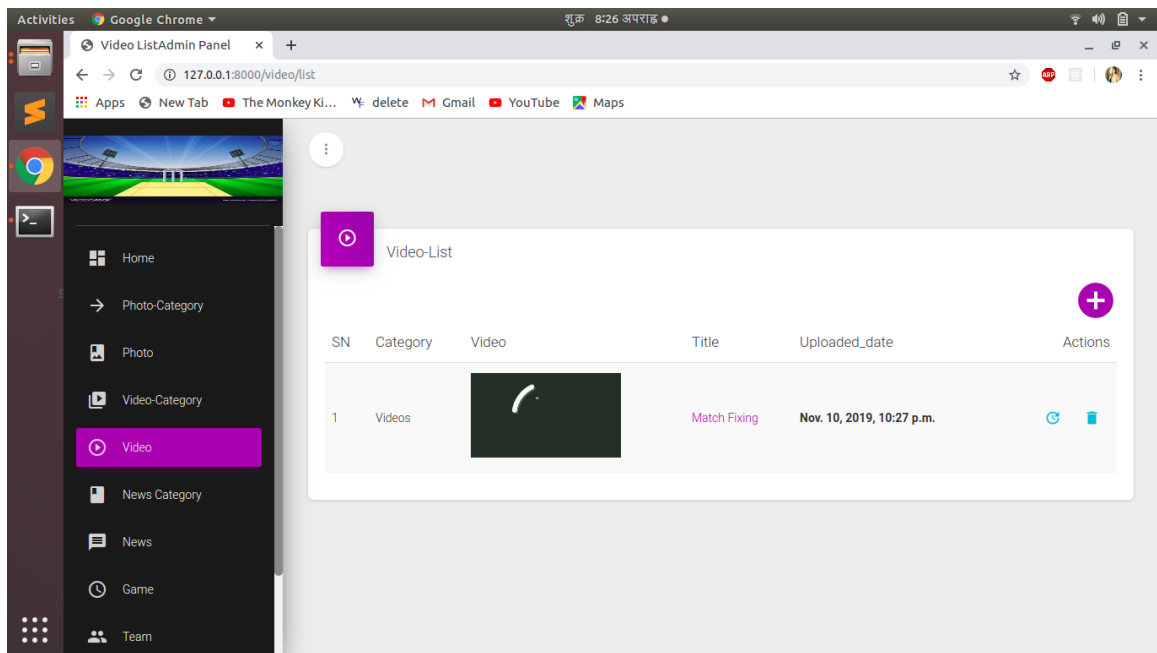
Screenshot 14: News category



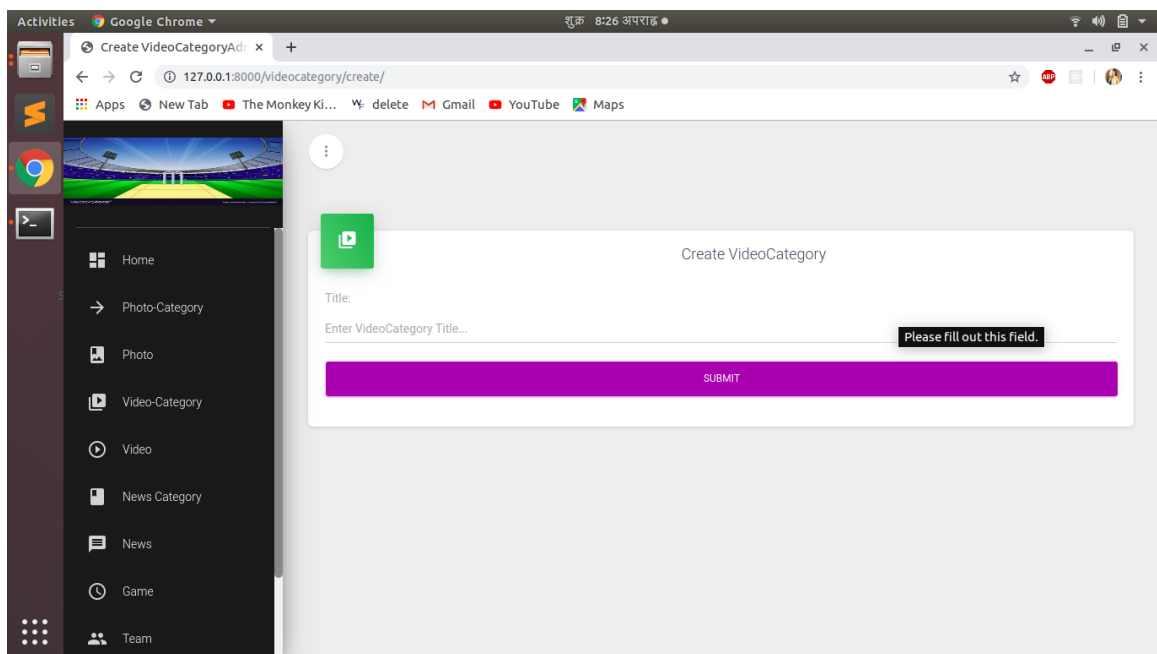
Screenshot 15: create news category



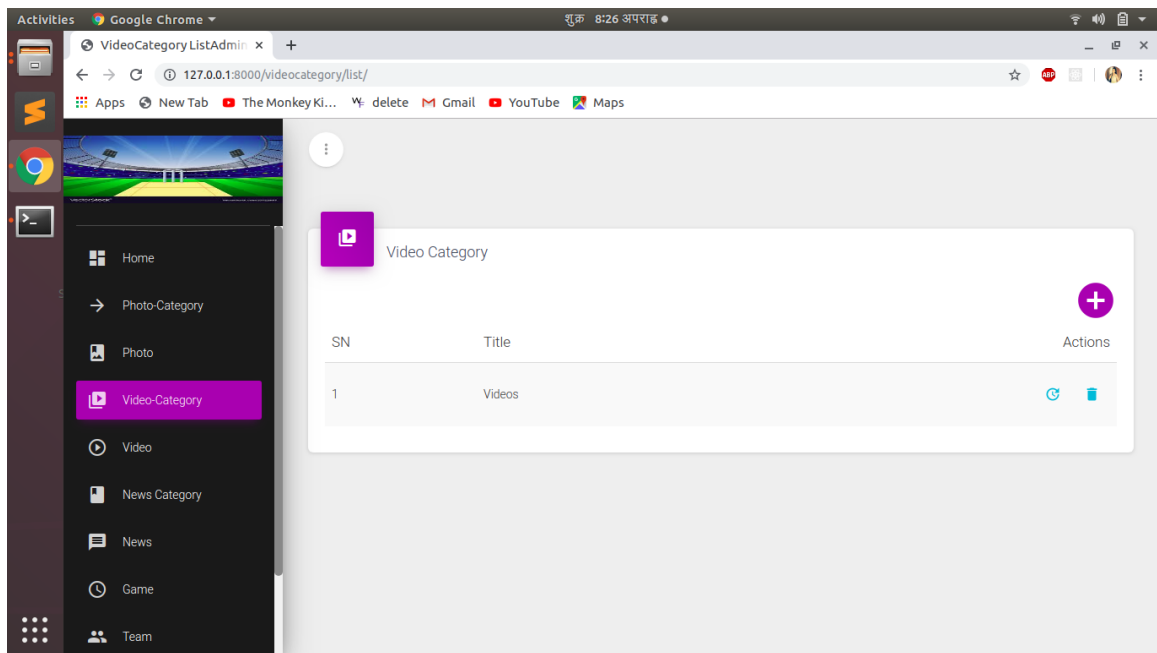
Screenshot 16: create video



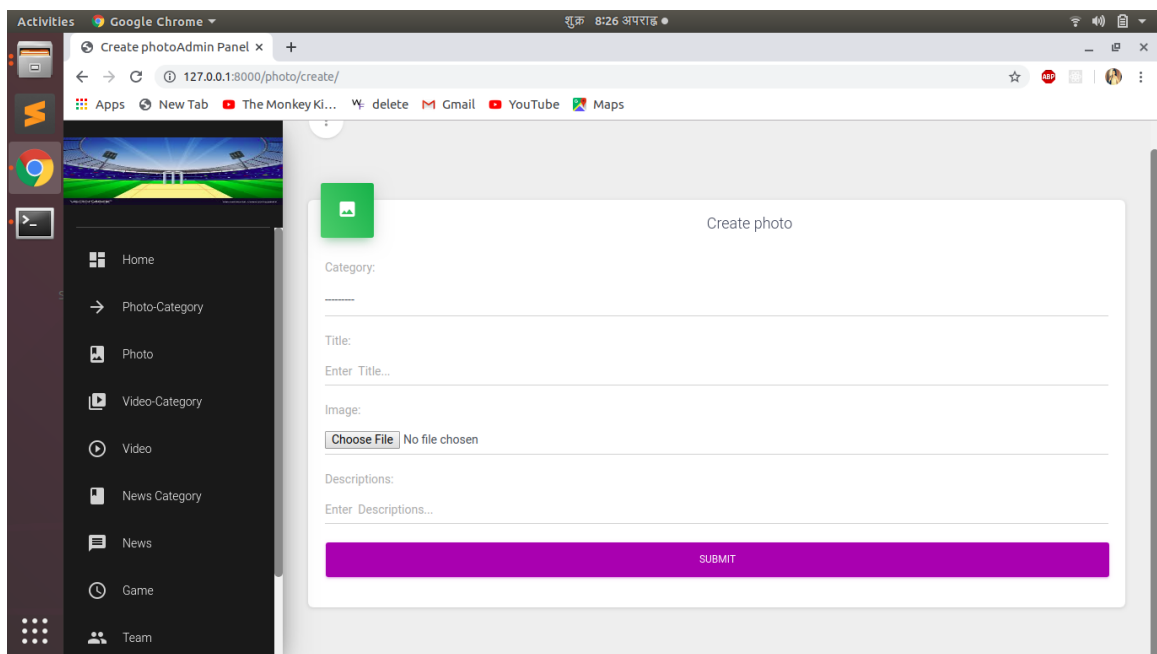
Screenshot 17: video list



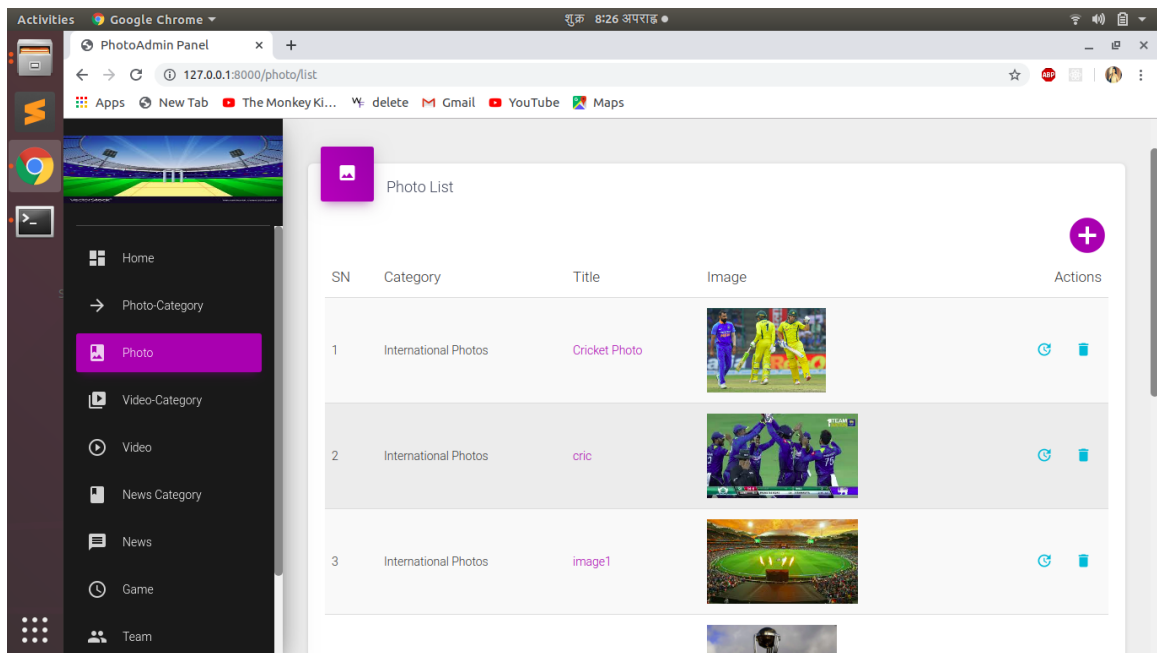
Screenshot 18: create video category



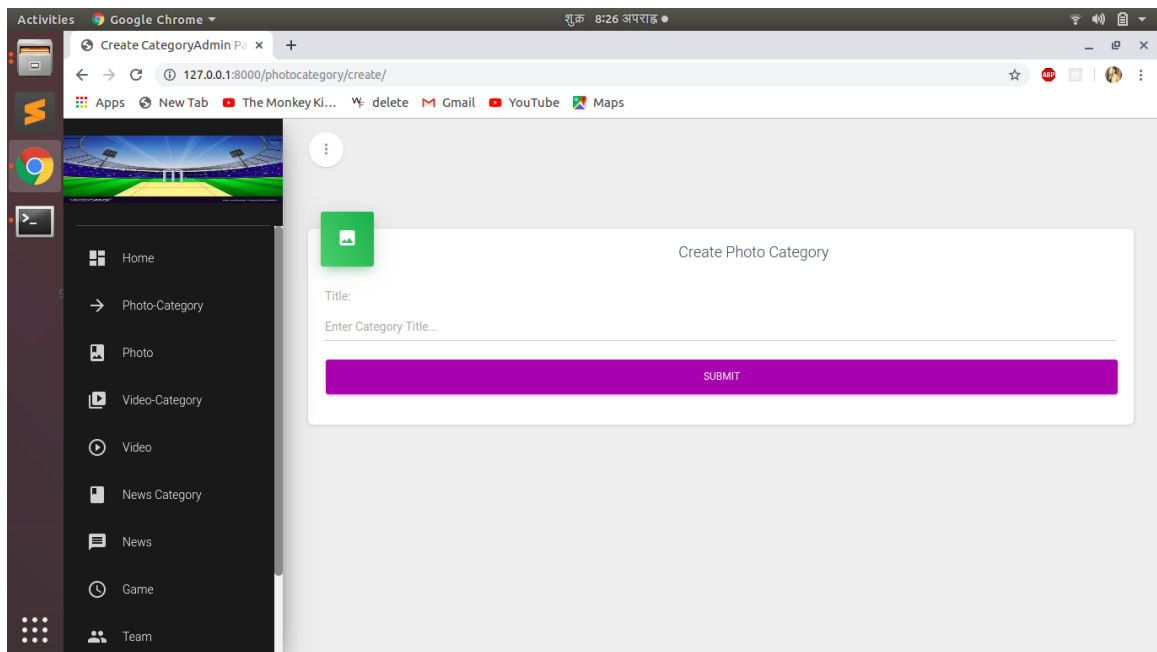
Screenshot 19: video category List



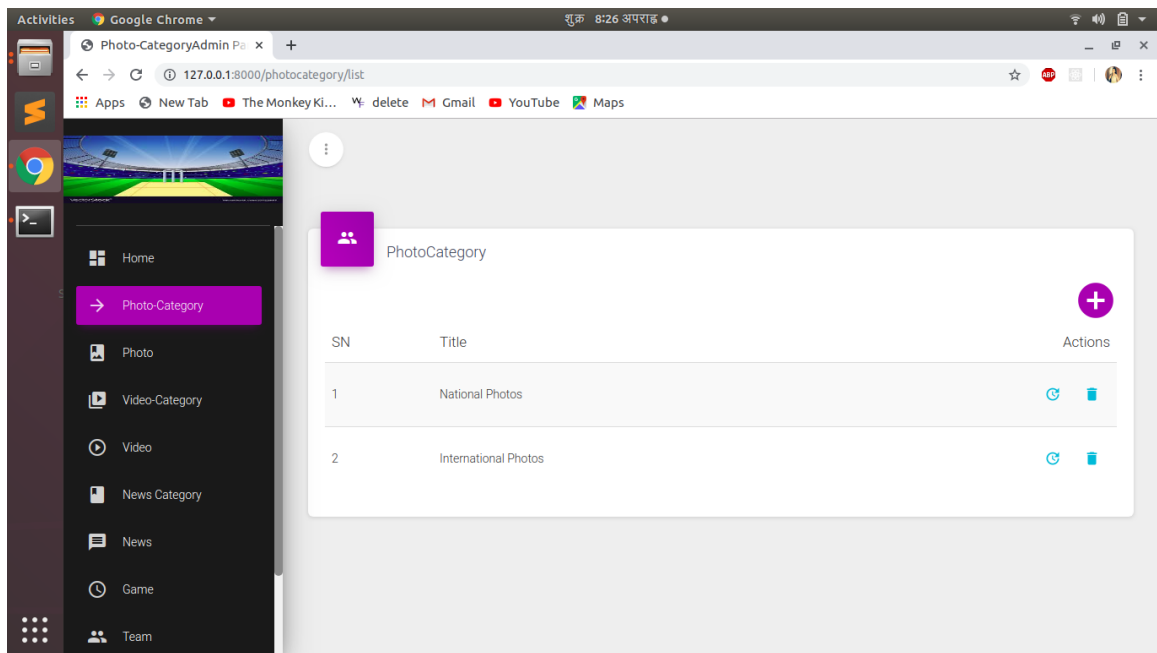
Screenshot 20: Create photo



Screenshot 21: photo list



Screenshot 22: create photo category



Screenshot 23: Photo category list