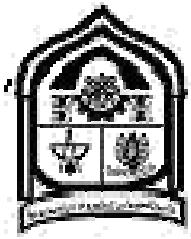

SUDAN UNIVERSITY OF SCIENCE & TECHNOLOGY
FACULTY OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

FOOTBALL NEWS AND TICKETS RESERVATION MANAGEMENT SYSTEM

OCTOBER 2016

THESIS SUMITTED AS A PARTIAL REQUIREMENTS OF B.Sc. (HONOR) DEGREE IN COMPUTER SICIENCE

بسم الله الرحمن الرحيم

SUDAN UNIVERSITY OF SCIENCE & TECHNOLOGY
FACULTY OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

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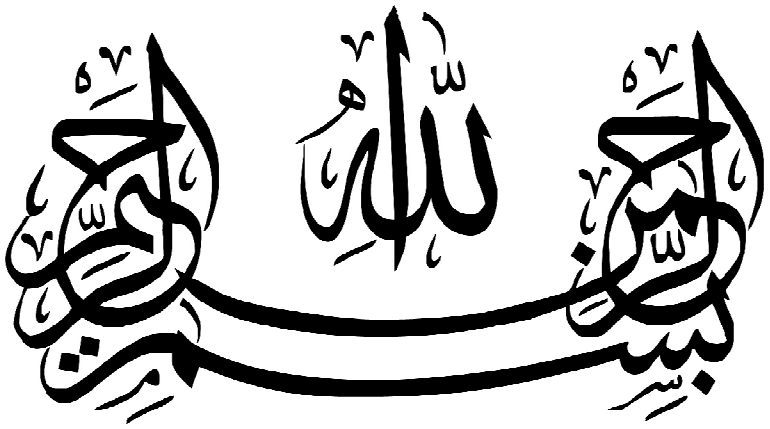

الآية

﴿ اللَّهُ لَا إِلَٰهَ إِلَّا هُوَ الْحَيُّ الْقَيُّومُ لَا تَأْخُذُهُ سِنَةٌ وَلَا نَوْمٌ لَهُ مَا فِي السَّمَاوَاتِ
وَمَا فِي الْأَرْضِ مَنْ ذَا الَّذِي يَشْفَعُ عِنْدَهُ إِلَّا بِإِذْنِهِ يَعْلَمُ مَا بَيْنَ أَيْدِيهِمْ وَمَا
خَلْفَهُمْ وَلَا يُحِيطُونَ بِشَيْءٍ مِنْ عِلْمِهِ إِلَّا بِمَا شَاءَ وَسِعَ كُرْسِيُّهُ السَّمَاوَاتِ
وَالْأَرْضَ وَلَا يَئُودُهُ حِفْظُهُمَا وَهُوَ الْعَلِيُّ الْعَظِيمُ ﴾ سورة البقرة

الشكر والعرفان

قال الله تعالى: ﴿لَئِن شَكَرْتُمْ لَأَزِيدَنَّكُمْ﴾ سورة إبراهيم الآية:7

الشكر لله الذي وهبنا النعمة والقوة وهدانا لإنجاز هذا البحث. ثم الشكر من بعده لأستاذنا الجليل/ **الشريف هجو المقدم يوسف**.مشرفنا على هذا البحـــث على دعمه المتواصل و صبره في كل مراحل المشروع، وكل من منحنا وقته ورعايته ونصائحه وتوجيهاته وإخلاصه بمساعدتنا لتقديم هذا العمـــــل بصورة طيبةولكافة الأساتذة الإجلاء والعاملين و بكلـــية علوم الحاسوب و تقانة المعلومات ، و الشكر موصول لكل من مد يد العون لنا و دعمنا بشتى الوسائل ، خلال المشروع او في اي فصل دراسي.

و الحمـد و الشكـر لله اولاً و آخراً ، الذى و فقنا لهذا .

و الله ولي التوفيق

الإهداء

(وَقُلِ اعْمَلُوا فَسَيَرَى اللهُ عَمَلَكُمْ وَرَسُولُهُ وَالْمُؤْمِنُونَ)

سورة التوبة الآية 105

صدق الله العظيم

إلهي لايطيب الليل إلا بشكرك ولايطيب النهار إلى بطاعتك .. ولاتطيب اللحظات إلا بذكرك .. ولا تطيب الآخرة إلا بعفوك .. ولا تطيب الجنة إلا برؤيتك

الله جل جلاله

إلى من بلغ الرسالة وأدى الأمانة .. ونصح الأمة .. إلى نبي الرحمة ونور العالمين..

سيدنا محمد صلى الله عليه وسلم

إلى ملاكي في الحياة .. إلى معنى الحب وإلى معنى الحنان والتفاني .. إلى بسمة الحياة وسر الوجود

إلى من كان دعائها سر نجاحي وحنانها بلسم جراحي إلى أغلى الحبايب

أمي الحبيبة

إلى من كلله الله بالهيبة والوقار .. إلى من علمني العطاء بدون انتظار .. إلى من أحمل أسمه بكل افتخار

..أرجو من الله أن يمد في عمرك لترى ثماراً قد حان قطافها بعد طول انتظار وستبقى كلماتك نجوم أهتدي بها اليوم وفي الغد وإلى الأبد..

والدي العزيز

ABSTARACT

This report is a summary of study that was undertaken to design and implement football news and tickets reservation management system. We have explored the literature review,to better understand the domain of the study. UML are used to analyze and model requirements. Then the theoretical realization that this research captured, transformed into a physical system.

المستخلص

هذا التقرير هو ملخص الدراسة التي تم اتخاذها لتصميم و تنفيذ نظام ادارة حجز التذاكر و اخبار كرة القدم. قد قمنا بإستعراض متن البحث لاستيعاب مجال البحث بشكل افضل.تم استخدام اللغة الموحدة للنمذجة لتحليل و نمذجة المتطلبات.تم تحقيق النظريات المعروضة في هذا البحث الي نظام فعلي.

LISTOF TERMS

#	TERMS	DESCRIPTIONS
1	VIP	Very Important Person
2	HTML	HyperTextMarkupLanguage
3	Ajax	AsynchronousJavaScriptandXML
4	JSON	Java Script Object Nation
5	CSS	CascadingStyleSheet
6	PHP	Hypertext Preprocessor
7	SQL	Structured Query Language
8	IDE	Integrated Development Environment
9	API	Application Programing Interface
10	REST	Representational State Transfer
11	HTTP	The Hypertext Transfer Protocol
12	SVG	Scalable Vector Graphics
13	UML	UnifiedModelingLanguage
14	HCI	Human-computer interaction
15	WAMP	Windows, Apache, MySQL, and PHP

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION:

Information and communications technology has become the most phenomena that is attached to all activities, with the spread of modern advanced technology all over the world and with the importance of football in the meantime,which led to the need of organizing football matches , booking seats , selling and buying tickets and football news.

Football fans need a place to follow-up all sports activities from this perspective was invented soccer platform that contains a range of services that benefit the users of the system.

Football match played between two teams, each team consists of eleven players including the goalkeeper, and the game played on a rectangular field and the idea of the game is driving the ball into the opponent's goal to achieve the result.

The main reason for this sport that it earns popularity by itself, it also can be handled easily and adaptable out of all other sports.

The game is controlled by a referee who has the full authority to enforce the game rules along with two linemen and fourth referee handles substitutions and extra time.

Football is strategic game which is played by men and women with different ages as well it considered the most popular sport in the world.

1.2 RESEARCH PROBLEMS:

THE PROBLEMS OF THIS THISIS ARE AS FOLLOWS:

- Booking three seats or more respectively.
- Overcrowding in front of tickets sales offices.
- Wasting of effort and time.
- Taking advantage of the black market.

- Selling forged tickets.
- Overcrowding in parking lots during the matches.
- Manipulation of seats during the matches.

1.3 IMPORTANCE OF THE RESEARCH:

This research helps in offering both fans and stadium's officials a way of arranging the booking automatically, and enables fans to see available seats and stadium's officials to see the reserved seats.

The reservation process can be done well ahead of time and it is fair(first-come first-served system). The system keeps fans up to date with football news that contains events, ongoing, upcoming, and finished matches.

The developed system is accessible via android devices and computers with internet connection, it is web based so it is available all the time.

1.4 RESEARCH OBJECTIVES:

- To design a web based system to facilitate the process of following football matches and events more easier and up to date, also to decrease error rate and lose of data, and enable the fans to book tickets remotely.
- To study the existing systems and determining their insufficiencies.
- To analyse and modelling of requirements to be implemented.
- To design friendly graphical user's interfaces, and ease the interaction between the user and the system by implementing human computer interaction guides and principles.

- To design a server system to serve customer's requests, along with implementing a mechanism of access control in order to guarantee the integrity of information.
- To Implement, and integrating the different components of the system to work as a single unit with less hardware consumption, and high performance in the service of system's and user's requirements.
- To test and validate the system against user's inputs and customer acceptance.

1.5 SCOPE:

Designing an integrated platform serves the interests of both the stadium's officials and the fans in purpose of facilitating the process of selling and buying tickets which it gives a clearer idea of the financial situation also follow-up scores of the fans favourite teams and communication between them through chat.

All the users of the system are considered clients and the administrator takes control of the servers, the system does not support security.

1.6 RESEARCHSTRUCTURE:

Chapter one gives introduction about the project, defining the problems, objectives, and scope.

Chapter two contains two parts. Part one represents a general background about reservations systemsand SystemRequirements, part two is the related studies.

Chapter three also contains two parts, first part explains the tools and techniques used in this project, and the second part is the UML design for the project functionality.

Chapter four contains the project implementation.

Chapter five is the results and recommendations.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION:

This chapter is divided into two sections, the first section gives general description of football system, and the second section describes the related studies to research project.

2.1.1 INTRODUCTION OF FOOTBALL:

The game is played by two opposing teams, with eleven members each team including the goalkeeper. It is played on a rectangular field with the main goal of driving the ball into the opponent's goal to achieve a score. The ball is primarily played with the feet and only the goalkeeper is allowed to touch and handle the ball. The main reason why this sport has gained its popularity because it is one of the most accessible and adaptable amongst all other sports.

2.1.2 THE ONLINE RESERVATION SYSTEM FOR STADUIM:

Online reservation system for stadiums is considered one of the most important systems in the current time.

Sudanese stadiums are lacking of the use of electronic systems in most of its fields, so we developed the manual reservation ticketing system into an online ticketing system which it allows the new users of the system for signing up and purchasing online tickets to their seats with less effort and time.

Furthermore the system provides a membership feature which gives the fans privileges that is differentiate a visitor from a member.

2.1.3 TYPES OF RESERVATIONS IN RESERVATION SYSTEM:

THE CURRENT SYSTEM IS CONSIST OF THE FOLLOWING:

- **BOOKING AS A VISITOR :**

The visitor go to the website and follow the procedures of purchasing the ticket with no ability to choose specific seat. Seats will be chosen randomly, and the booking information will be sent to the visitor's E-mail.

- **BOOKING AS A MEMBER :**

The member login to the website with username and password and follow the procedures of purchasing the ticket with the ability of choosing specific seats except the nine seats at the north side of the stadium because they are reserved for VIP members only , then the booking information will be sent to the member's E-mail.

- **BOOKING AS VIP MEMBER :**

The VIP member login to the website with username, password and follow the procedures of purchasing the ticket with the ability of choosing specific seats, the system will send the booking information to the VIP member's E-mail. Furthermore VIP members can opt to reserve parking spots and order meals before they arrive to the stadium.

Figure (2.1) Stadium Seats.

2.1.4 BOOKING PROCEDURES:

- **INDIVIDUAL BOOKING :**

Which the system allows the fans to book individual seat.

- **COLLECTIVE BOOKING :**

Which the system allows to book more than one seat (3 seats maximum),
Close or far apart,anywhere around the stadiumdepends on the fan's choice.

2.1.5 INTERFACE DESIGN:

Every normal and VIP member has a profile page which is detailed as follows:

❖ **NORMAL MEMBER :**

- The page is designed depends on the member's favorite team.
- The page has all the news about the favorite team.
- The page has the favorite team league competition rankings.
- The league raking table can be ordered by any columnascending or descending.
- The normal member can search in the league ranking table by any of its field.
- There is a chat group allows its members to communicate.

❖ **VIP MEMBER:**

- The page is designed depends on the member's favorite team.
- The page has the favorite team league competition rankings.
- The league raking table can be ordered by any column ascending or descending.
- The normal member can search in the league ranking table by any of its field.

- The page has all the news about the favorite team.
- There is a chat group allows its members to communicate.

❖ ADMINISTRATORS :

Administrators are considered one of the most important category in the system, where they control the data floating and every action that happens in the system. Their tasks as follow:

- Authorization to add,delete, and modify data in the system except visitors and customer's data.
- Generate monthly and yearly reports.
- Control and reply to complaints and suggestions.
- Send messages to all the users in the system.
- Block and activate the accounts of the members.

❖ ANDROID APPLICATION :

Which is an android application for the system users provides:

- Login with username and password.
- Viewing scores of the current matches.

2.2 PREVIOUS STUDIES:

2.2.1 MOBILE E-TICKETING RESERVATION SYSTEM FOR AMMAN INTERNATIONAL STADUIM FOR JORDAN. [7]

This research introduces a Mobile E-Ticketing system for Amman International Stadium in Jordan to provide the crowed with an E-ticket for watching matches without losing time and effort. Fans usually buy the tickets manually from shops or out the gates of the stadium, this process tiresome because the great number of the crowd, as it would take long time to wait in lines, choose the match time and seat, and the most disappointing is reaching the stadium and cannot get tickets.The design research methodology or sometimes called "improvement research" contained the major steps: Awareness the problem, suggestion, development, evaluation and conclusion. Therefore this study proposed a mobile system that enabled booking while being at home or elsewhere can get tickets easily and save time and efforts. From the testing and evaluation conducted, the prototype fulfils the requirements needed by the mobile users.

RESULT:

Mobile Ticketing for Amman international Stadium Prototype helps the public by gaining an easier way to make their reservation by providing them with the necessary information of the ticketing and allow them to make reservation for watching the football match.From the testing and evaluation conducted, the prototype fulfils the

requirements needed the mobile user. However, improvements has to be made for the prototype to be more user friendly.

2.2.2 TICKETING SYSTEM FOR LIBERTY STADIUM.[8]

The aim of the project was to create a reliable and easy to use ticketing system be used by Swansea City FC and Ospreys Rugby Union at the Liberty Stadium. The major goals of the project were to create a system which makes it easier for customers to purchase the tickets that they want. And to create a more efficient and modern system for providing entry to the ground on a match day, which will reduce costs on a match-by-match basis. Also to provide a fairer system for distributing tickets for away matches.

RESULT:

This study has resulted into developing a web based system for liberty stadium that overcomes the obstacles faced by football fans when they attempt to reserve match tickets, by facilitating the process of online reservation, and even allowing the fan to purchase season tickets. This study excludes creating reports and handling matches expectations. The system has dealt only with tickets sells and related procedures.

2.2.3 A STUDY OF HOW INFORMATION SYSTEMS FACILITATE FOOTBALL CLUBS.[9]

The study analyzes that how information systems facilitate football clubs. To fulfill these purposes this study adopts a design strategy which contains theoretical and empirical parts. It gives a way how to operate and improve works to solve and avoid problems in various sectors in order to facilitate football clubs.This study chooses a suitable information system development methodology and designs a general football club information system model. In the empirical study a questionnaire survey is made to check and complete a general football club information system model. This study proves that information systems can facilitate football clubs in business processes and operations, internal communication and decision-making; furthermore, it supports football club business strategies and helps establish a powerful human resource management project.

RESULT:

In a sum, information system can dramatically facilitate football clubs. Information systems have been proven to facilitate football clubs in three ways: participating football club business processes and operations, supporting football club decision-making, and supporting football club business strategies.There are many aspects have been proven that information systems can definitely facilitate football clubs. Information systems can make football club internal communication more effectively; information systems can exhaustively support football club financial management; information systems can subdivide football management; information systems can help establish a powerful human resource management project.

2.2.4 SUMMARY OF THE PREVIOUS STUDIES:

By exploring the related studies in the field of football game, all studies have developed a mechanism of handling the complexity of tickets reservation and that saved lots of fans effort and time. Dealing with such huge amount of data requires timed reports to enable stakeholders to be aware of their financial situation and to figure out a way of making the service more convenient and satisfying.

Football has become a way of entertainment that involves interaction and fans expectations about certain matches and competitions results, so that needs to be handled. However, the previously mentioned studies excludes football news, and matches results. Much work needs to be done in providing real-time news that covers football-related events, andmatches results, so that the fans especially those who did not get the chance to attend the matches physically to be kept up to date.

CHAPTER 3

WORK ENVIRONMENT AND SYSTEM ANALYSIS

3.1 INTRODUCTION

This chapter is divided into four sections; the first section describes the system requirements. The second section describes the systemtechniques, which used in system.The third section describes the authoritySystem, thefourth section describes the system analysis using UML technology.

.

3.2 THE SYSTEM REQUIREMENTS:

3.2.1 FUNCTIONAL REQUIREMENT:

The functional requirements define the specific functions that the system performs, along with the data operated on by the functions. Included one or more examples of all system features and an enumeration of all the specific requirements associated with these features.

- **CUSTOMER DATA RECORDING:**

The system shall record customer's data. When customers tend to take advantage of the system they have to register as to be kept up to date with their favourite teams and the system shall auto-adopt itself depending on the fan's favouriteteam.

- **THE POSIBILITY OF MODIFING DATA:**

If the customer has an account on the page he directly login to his profile and follow all required procedures.

- **QUERY FOR THE CLINET'S ACCOUNT:**

Help is provided by supportingcustomersby E-mail and send massage by page.

- **CONFIRM THE REGISTRAION NUMBER OF THE STADUIM SYSTEM AND THE CUSTOMER BY E-MAIL:**

In order to help sendingthe customer's privatedata and security number quickly and with less effort.

- **ACCESS CONTROL:**

  Data is accessed depending on user's type. The system has three types of users, anadministrator, avisitor, and a VIP member each of which has a certain privileges.

- **REPORTS:**

  The system shall provide the administrator withreal-time, monthly, andyearly reports containing the exact number of users, their types and the total amount of money gained by tickets sells.

3.2.2 NONFUNCTIONAL REQUIREMENTS:

The nonfunctional requirements addresses aspects of the system rather than the specific functions it performs. This aspects include system performance, costs, and such general system characteristics as reliability, security, and portability. The nonfunctional requirements also addresses aspects of the system development processes and operational personnel. It includes the following:

- **SYSTEM USABILITY :**

The system should be learnable and user friendly.

- **SYSTEM AVAILABILITY:**

The system should be accessible at any time and from any device with any specifications.

- **SYSTEM RELIABILITY (DEPENDABILITY):**

The system should decrease the error ratio and help the users in error correction.

- **EFFECTIVENESS OF THE SYSTEM (EFFICIENCY):** the system should attract as many users as possible by the repeatedly improving the service.
- **INTEROPERABILITY :**

The system should be characterized by fully harmonic between units,in terms of design and development

- **SCALABILITY :**

The system should be able to deal with increasing amounts of work.

- **PORTABILITY:**

  The system should work under different platforms (windows, LUNIX, Mac OS, android).

- **MAINTAINABILITY :**

  The system should be well documented. And the code should be readable, understandable.

3.3 TECHNOLOGIES TO BE USED:

3.3.1 HTML5:

Hyper Text Markup Language is a language for specifying how text and graphics appear on a web page.
HTML5 is an emerging standard web developers are embracing everywhere.
The HTML5 standards define new functionality that is being embraced by most of the key web browsers, including Microsoft Internet Explorer 9. [1]

3.3.2 CSS:

Cascading Style Sheets, fondly referred to as CSS, is a simple design language intended to simplify the process of making web pages presentable. [2]

3.3.3 JAVASCRIPT:

JavaScript is a dynamic computer programming language. It is lightweight and most commonly used as a part of web pages, whose implementations allow client-side script to interact with the user and make dynamic pages. It is an interpreted programming language with object-oriented capabilities.[15]

3.3.4 XML:

Extensible Markup Language, describes a class of data objects called XML documents and partially describes the behaviour of computer programs which process them. XML is an application profile or restricted form of SGML, the Standard Generalized Markup Language [ISO 8879]. By construction, XML documents are conforming SGML documents. [10]

3.3.5 AJAX:

AJAX stands for Asynchronous JavaScript and XML. AJAX is a new technique for creating better, faster, and more interactive web applications with the help of XML, HTML, CSS, and Java Script. Ajax uses XHTML for content, CSS for presentation, along with Document Object Model and JavaScript for dynamic content display. [14]

3.3.6 PHP:

Hypertext Pre-processor, fondly referred to as PHP is a server side scripting language that is embedded in HTML. It is used to manage dynamic content, databases, session tracking, even build entire ecommerce sites. [3]

3.3.7 JSON:

JSON (JavaScript Object Notation) is a lightweight data-interchange format. It is easy for humans to read and write. It is easy for machines to parse and generate. It is based on a subset of the JavaScript Programming Language, Standard ECMA-262 3rd Edition - December 1999. [12]

3.3.8 MYSQL:

The most popular Open Source SQL database, is developed and provided by MySQL, a commercial company that builds its business providing services around the MySQL database. [4]

- **FEATURES:**
  - Written in C and C++. Tested with a broad range of different compilers.
  - Works on many different platforms.
  - Fully multi-threaded using kernel threads. This means it can easily usemultiple CPUs if available.
  - Very fast B-tree disk tables with index compression
  - A very fast thread-based memory allocation system.
  - In-memory hash tables which are used as temporary tables.

3.3.9 WAMP Server:

Stands for "Windows, Apache, MySQL, and PHP."
WAMP is a variation of LAMP for Windows systems and is often installed as software bundle (Apache, MySQL, and PHP). It is often used for web development and internal testing, but may also be used to serve live websites. [13]

3.3.10 JAVA:

Java is object oriented, statically typed, portable programming language expressly designed for use in the distributed environment of the Internet.
It was designed to have the "look and feel" of the C++ language, but it is simpler to use than C++ and enforces an object-oriented programming model.

FEATURES: [16]

- Simple
- Object-Oriented
- Platform independent
- Secured
- Robust
- Architecture neutral
- Portable
- Dynamic
- Interpreted
- High Performance
- Multithreaded
- Distributed

3.3.11 ANDROID STUDIO:

Android Studio is the official integrated development environment (IDE) for Android platform development.

- **FEATURES :**
  - Gradle-based build support.
  - Android-specific refactoring and quick fixes.
  - ProGuard integration and app-signing capabilities.
  - Template-based wizards to create common Android designs and components.
  - A rich layout editor that allows users to drag-and-drop UI components, option to preview layouts on multiple screen configurations.
  - Support for building Android Wear apps.

3.3.12 RESTful API:

Application programming interfaces (APIs), they are fundamental to the way that computer, software, and network architecture has evolved. Further, one can differentiate between device APIs and remote APIs.

Device APIs allow access to data or functions provided by a device or operating system locally, whereas remote APIs are a way to let a consumer program access data or services of a provider program via a communications network in a controlled way. [5]

Representational state transfer (REST), which is used by browsers, A RESTful API is an application program interface (API) that uses HTTP requests to GET, PUT, POST and DELETE data. [11]

3.3.13 SVG:

Scalable Vector Graphics (SVG) is a graphical standard maintained and endorsed by the World Wide Web Consortium (W3C), the same group that created and continues to maintain HTML, CSS, XML, and other technologies that constitute the World Wide Web. [6]

3.3.14 MOZILLA FIREFOX:

Mozilla Firefox (known simply as Firefox) is a free and open-source web browser, the Mozilla Corporation. Firefox is available for Windows, OS X and Linux operating systems.

3.3.15 UML:

UML stands for unified modelling language. It is a standard language for specifying, visualizing, constructing, and documenting the artifacts of software systems.

- **UML DIAGRAM:**

1. **USE CASE DIAGRAM:**

   Is used to capture the dynamic behavior of the system when it is running/operating.

2. **ACTIVITY DIAGRAM:**

   Activity diagram is basically a flow chart to represent the flow form one activity to another activity. The activity can be described as an operation of the system. The main purpose of activity diagram is to capture the dynamic behavior of the system.

3. **SEQUENCE DIAGRAM:**

   Sometimes referred to as interaction diagram is used to describe some type of interactions among the different elements in the model. So this interaction is a part of dynamic behavior of the system.

3.4 SYSTEM ANALYSIS:

3.4.1 USE CASE DIAGRAM:

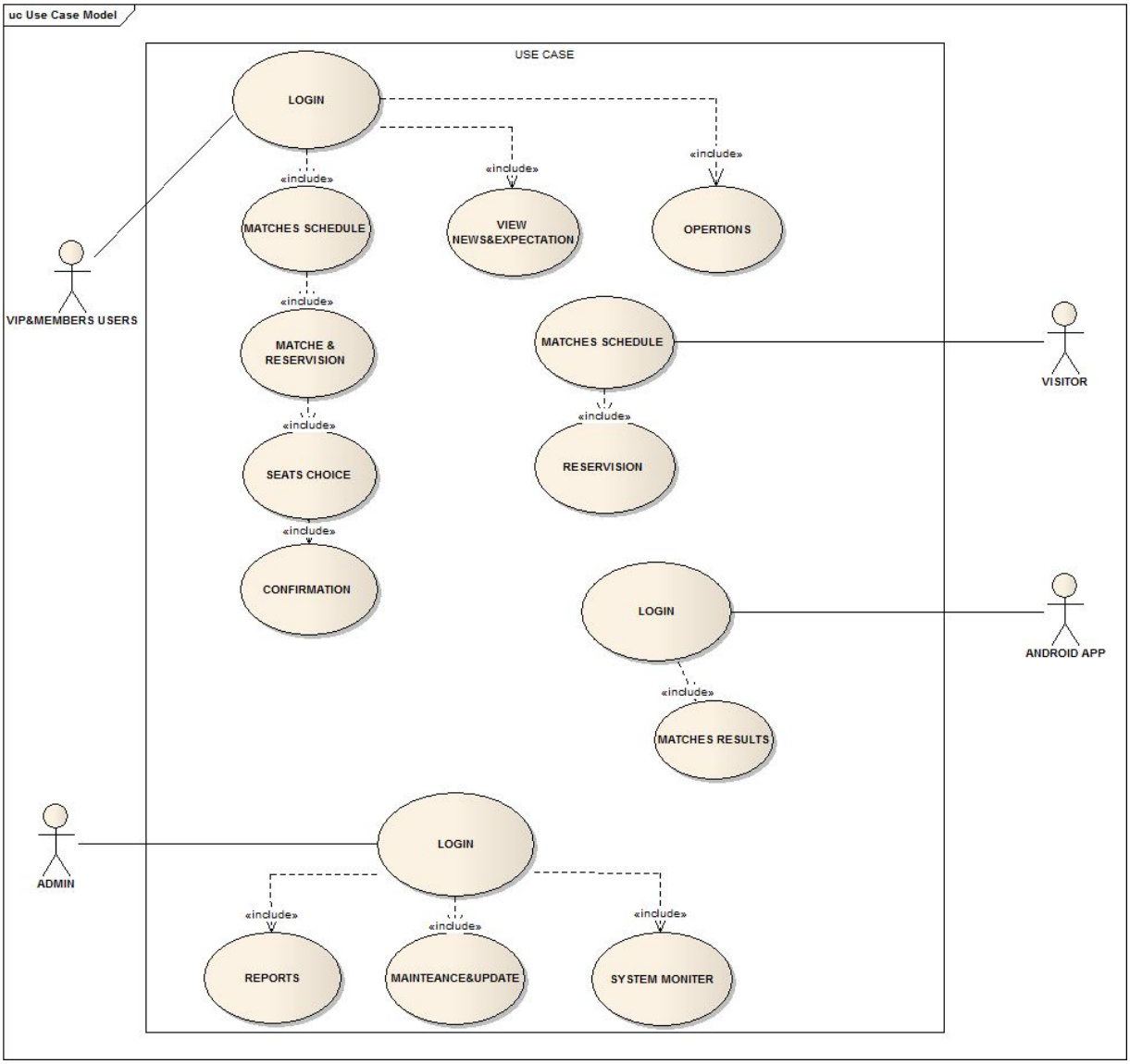


Figure (3.1) Use case Diagram for System

3.4.2 SEQUENC DIAGRAM:

3.4.2.1 LOGIN DIAGRAM:

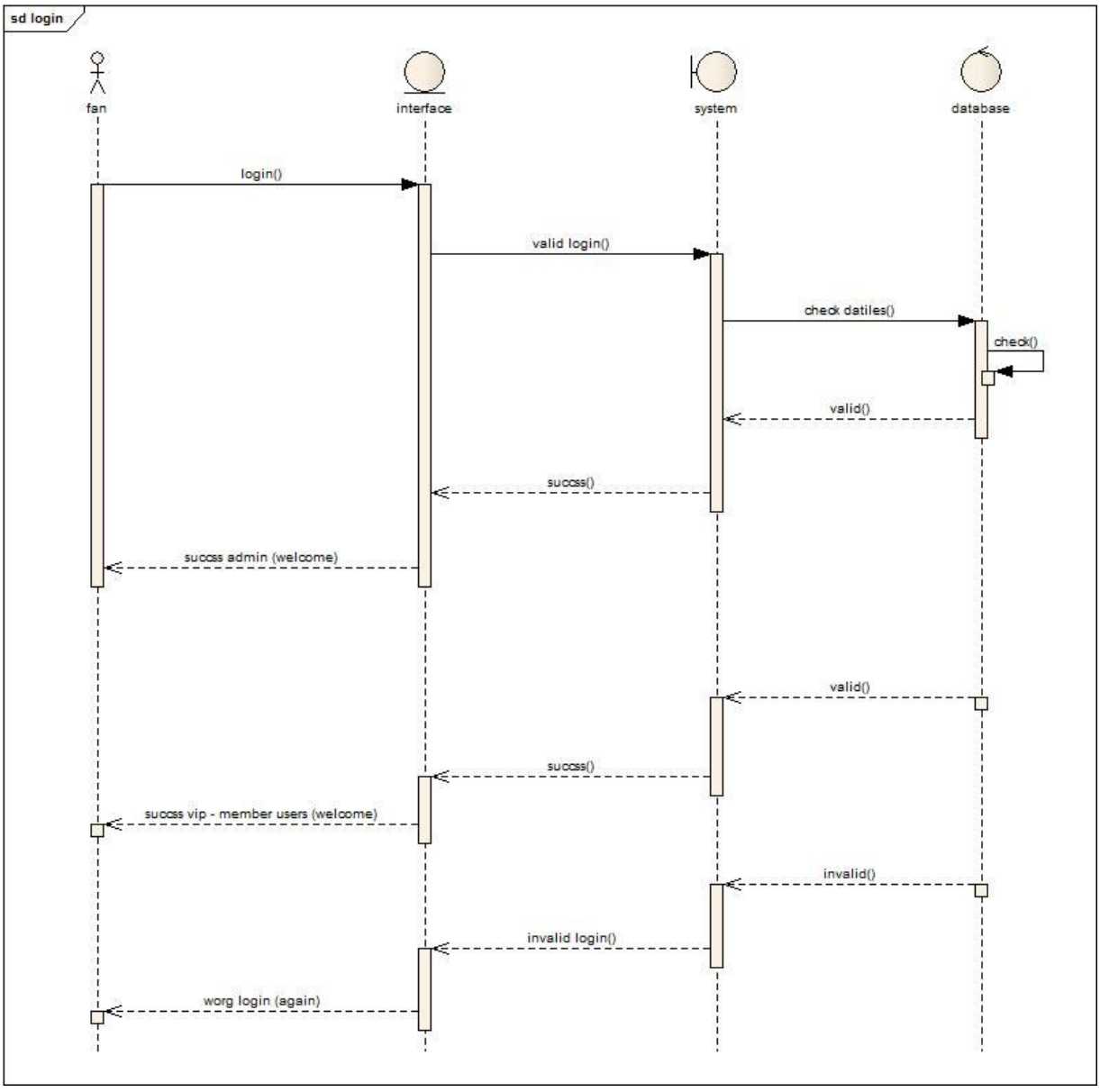


Figure (3.2) shows sequence diagram forlogin.

3.4.2.2 RESERVATION DIAGRAM:

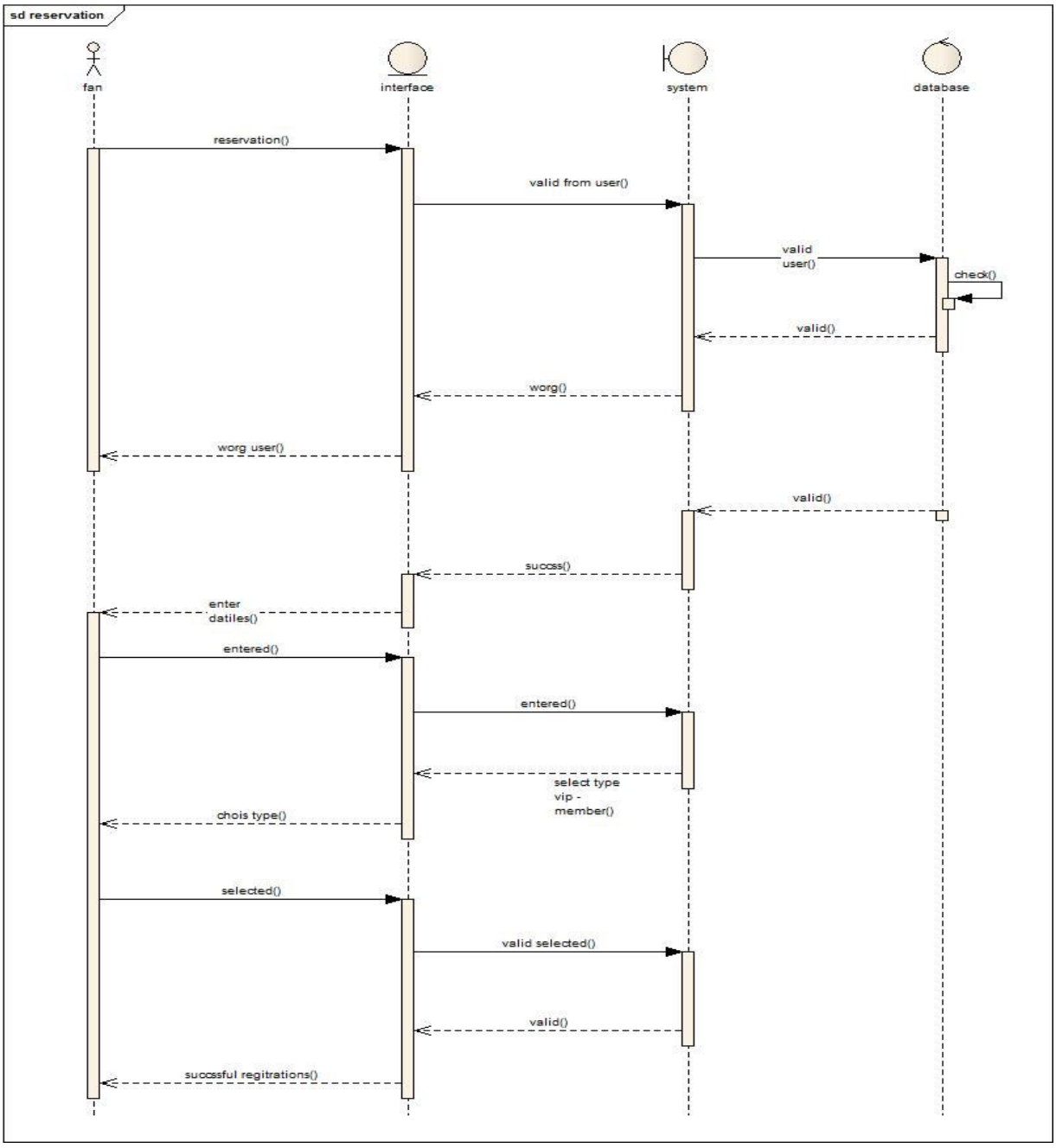


Figure (3.3) shows sequence diagramfor reservation.

3.4.2.3 NEWS DIAGRAM:

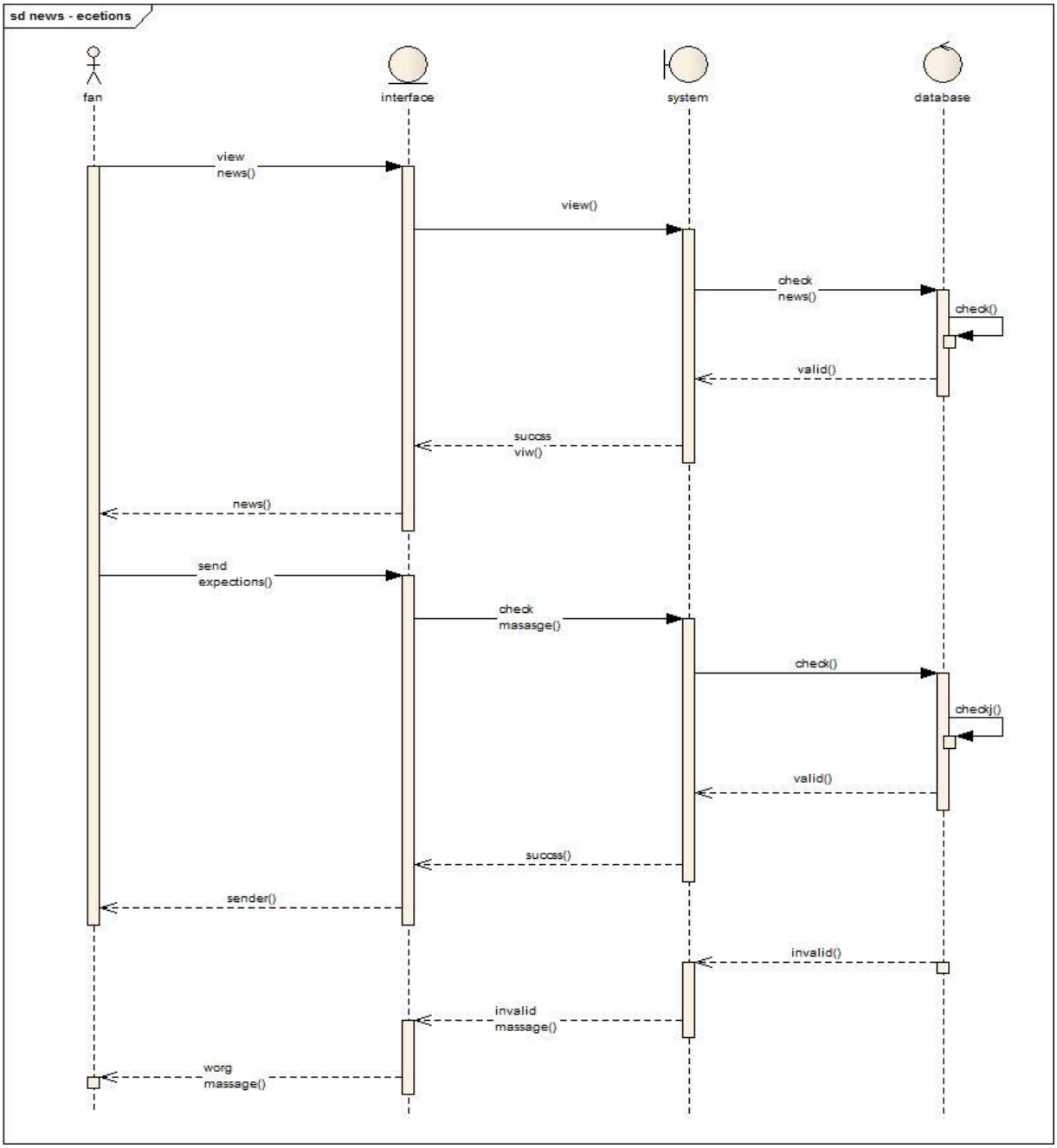


Figure (3.4) shows sequence diagramfor news.

3.4.2.4 UPDATE AND MAINTENANCE DIAGRAM:

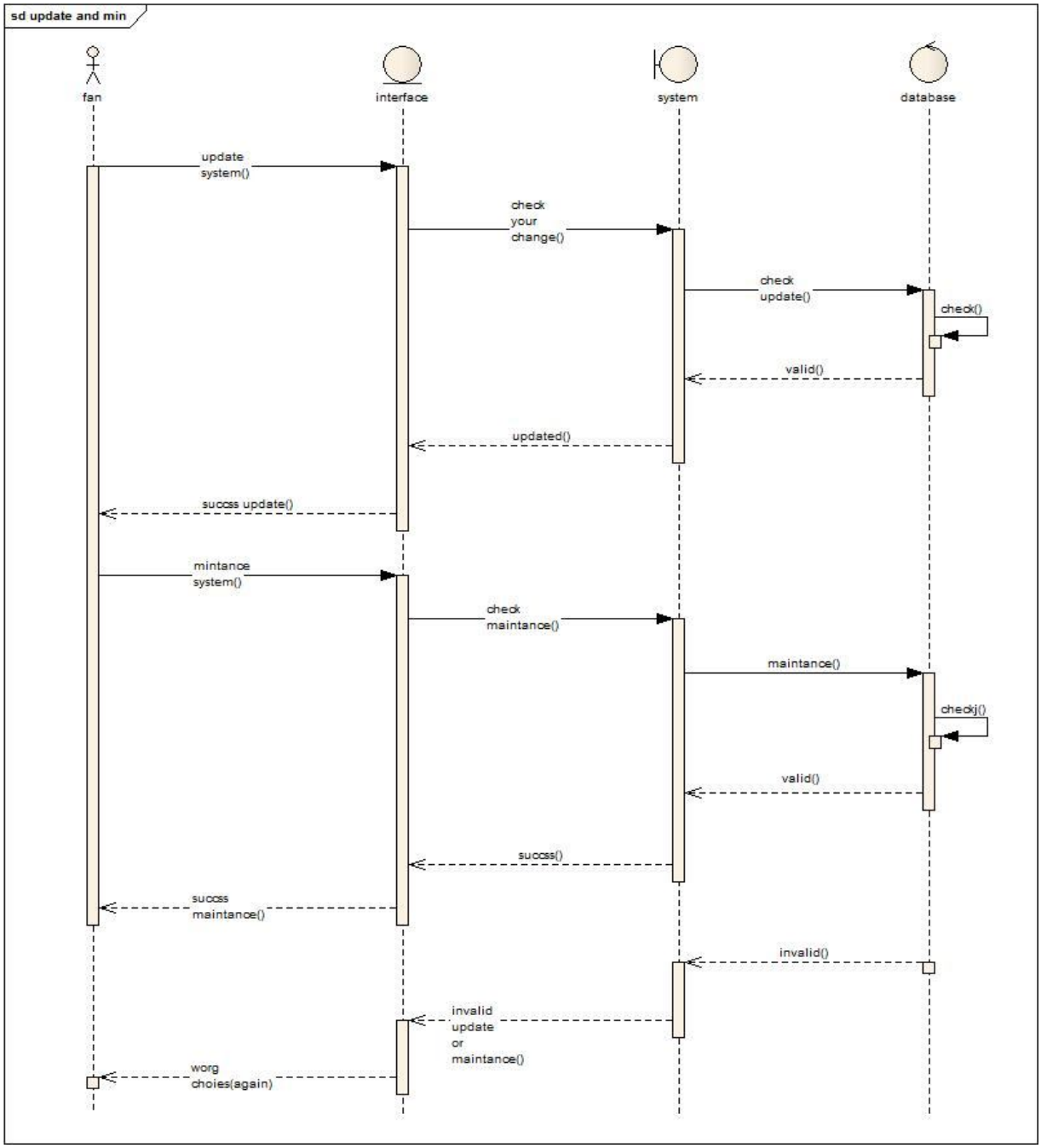


Figure (3.5) shows sequence diagramfor update and maintenance.

3.4.2.5 REPORTS DIAGRAM:

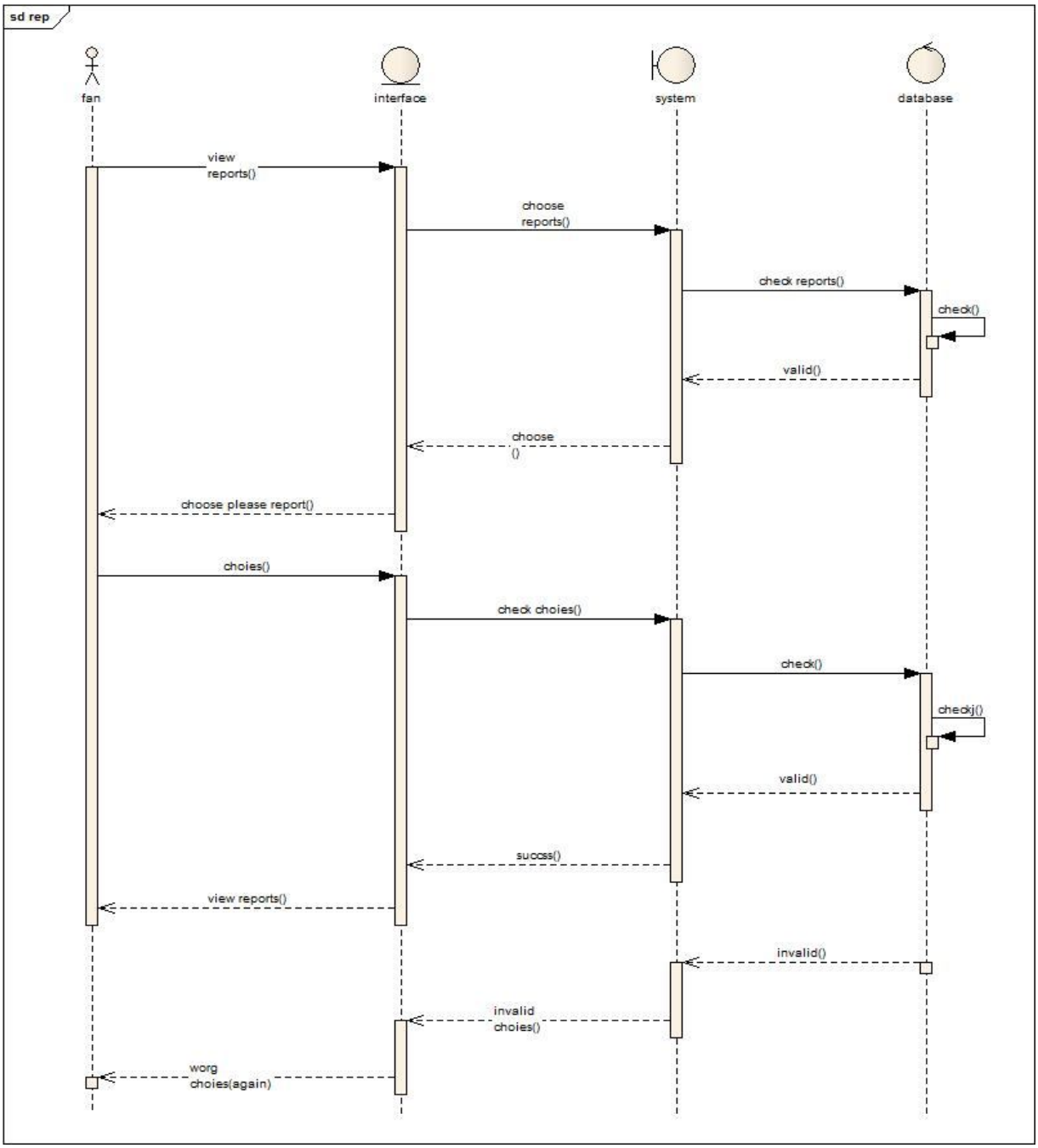


Figure (3.6) shows sequence diagramfor reports.

3.4.2.6 ANDROID APPLICATION DIAGRAM:

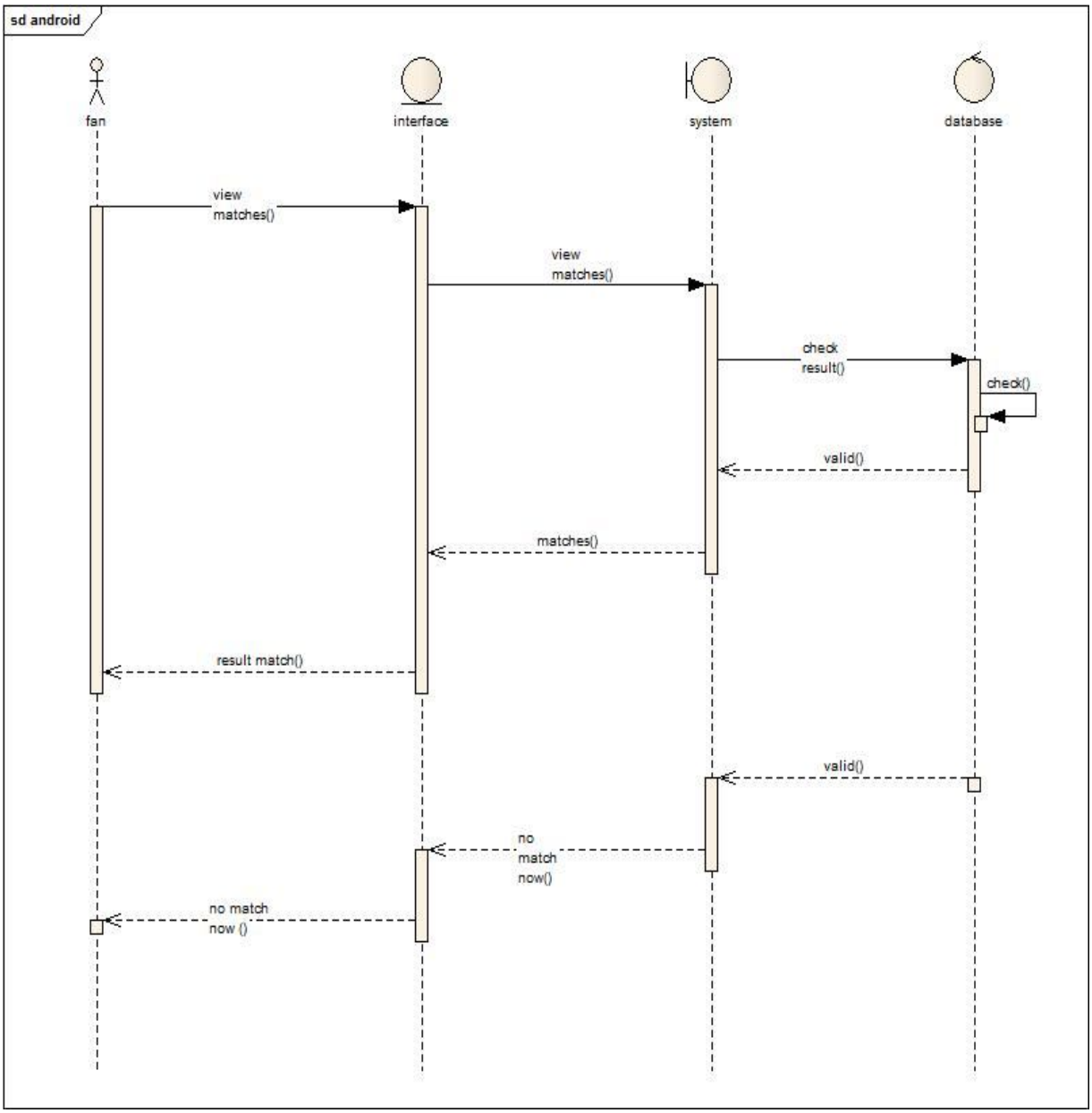


Figure (3.7) shows sequence diagramfor android application.

3.4.3 ACTIVITY DIAGRAM:

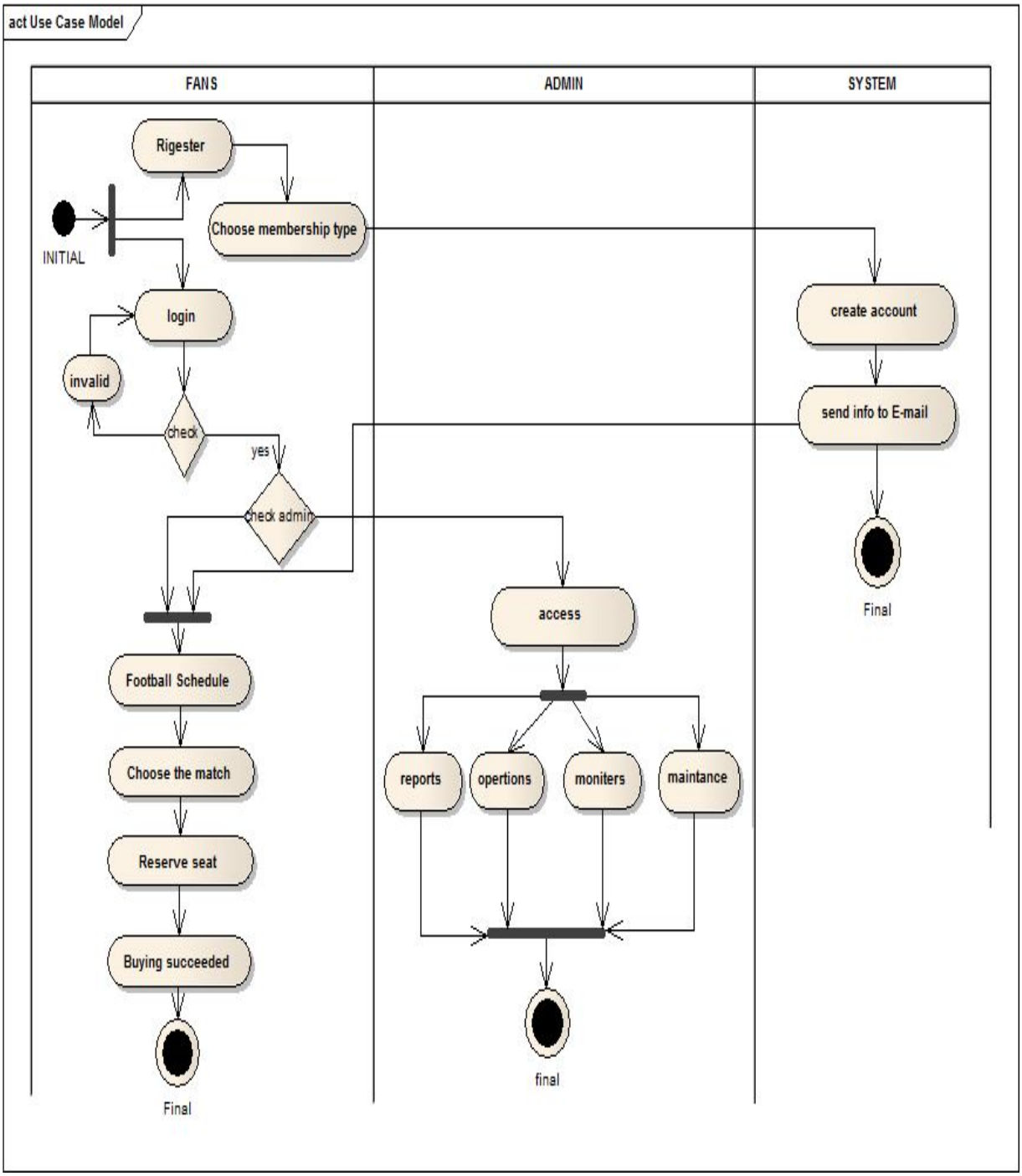


Figure (3.8) shows activity diagramfor the system.

3.5 DATABASE SYSTEM:

(1)TABLE NAME: Users

Field	Type	Null	Key	Default	Extra
id	int(254)	NO	PRI	*NULL*	auto_increment
fullName	varchar(25)	NO		*NULL*	
userName	varchar(200)	NO	UNI	*NULL*	
password	varchar(25)	NO		*NULL*	
email	varchar(30)	NO	UNI	*NULL*	
gender	varchar(20)	NO		*NULL*	
fteam	varchar(6)	NO		*NULL*	
expirdate	varchar(100)	NO		*NULL*	
type	varchar(20)	NO		*NULL*	
active	tinyint(1)	NO		1	

Figure (3.9) Users.

(2)TABLE NAME: News

Field	Type	Null	Key	Default	Extra
id	int(200)	NO	PRI	*NULL*	auto_increment
subject	varchar(200)	NO		*NULL*	
newsbody	text	NO		*NULL*	
img	varchar(254)	NO		*NULL*	

Figure (3.10) News.

(3)TABLE NAME: Contact

Field	Type	Null	Key	Default	Extra
id	int(254)	NO	PRI	*NULL*	auto_increment
name	varchar(254)	NO		*NULL*	
email	varchar(254)	NO		*NULL*	
subject	varchar(200)	NO		*NULL*	
message	text	NO		*NULL*	

Figure (3.11) Contact.

(4)TABLE NAME: Broadcast

Field	Type	Null	Key	Default	Extra
id	int(35)	NO	PRI	*NULL*	auto_increment
title	varchar(254)	NO		*NULL*	
content	varchar(254)	NO		*NULL*	
cat	int(11)	NO		*NULL*	

Figure (3.12) Broadcast.

(5)TABLE NAME: Matches

Field	Type	Null	Key	Default	Extra
id	int(200)	NO	PRI	*NULL*	auto_increment
home	varchar(200)	YES		*NULL*	
away	varchar(200)	YES		*NULL*	
Matchdate	varchar(200)	YES	UNI	*NULL*	

Figure (3.13) Matches.

(6)TABLE NAME: Booking

Field	Type	Null	Key	Default	Extra
id	int(200)	NO	PRI	*NULL*	auto_increment
user_id	int(200)	NO		*NULL*	
macth_id	int(200)	NO		*NULL*	
seat_num	varchar(200)	NO		*NULL*	
email	varchar(254)	YES		*NULL*	
meal	varchar(254)	YES		*NULL*	
parking	tinyint(1)	YES		*NULL*	

Figure (3.14) Booking.

CHAPTER 4

IMPLEMENTATION

4.1 INTRODUCTION:

This chapter shows how the system works and includes:
The design of the database system, and how the system works from the Web page, and explain how to use the Android application.
The system implemented using PHP as a server side language, HTML to design system web pages and JavaScript to validate the inputs and to exchange the date between the client and the server.

4.2 HOW THE SYSTEM WORKS:

4.2.1 REGISTRATION:

The customer enter his own information to complete the registration:

a) Full name.
b) User name.
c) Password.
d) Email.
e) Select gender and type of membership.

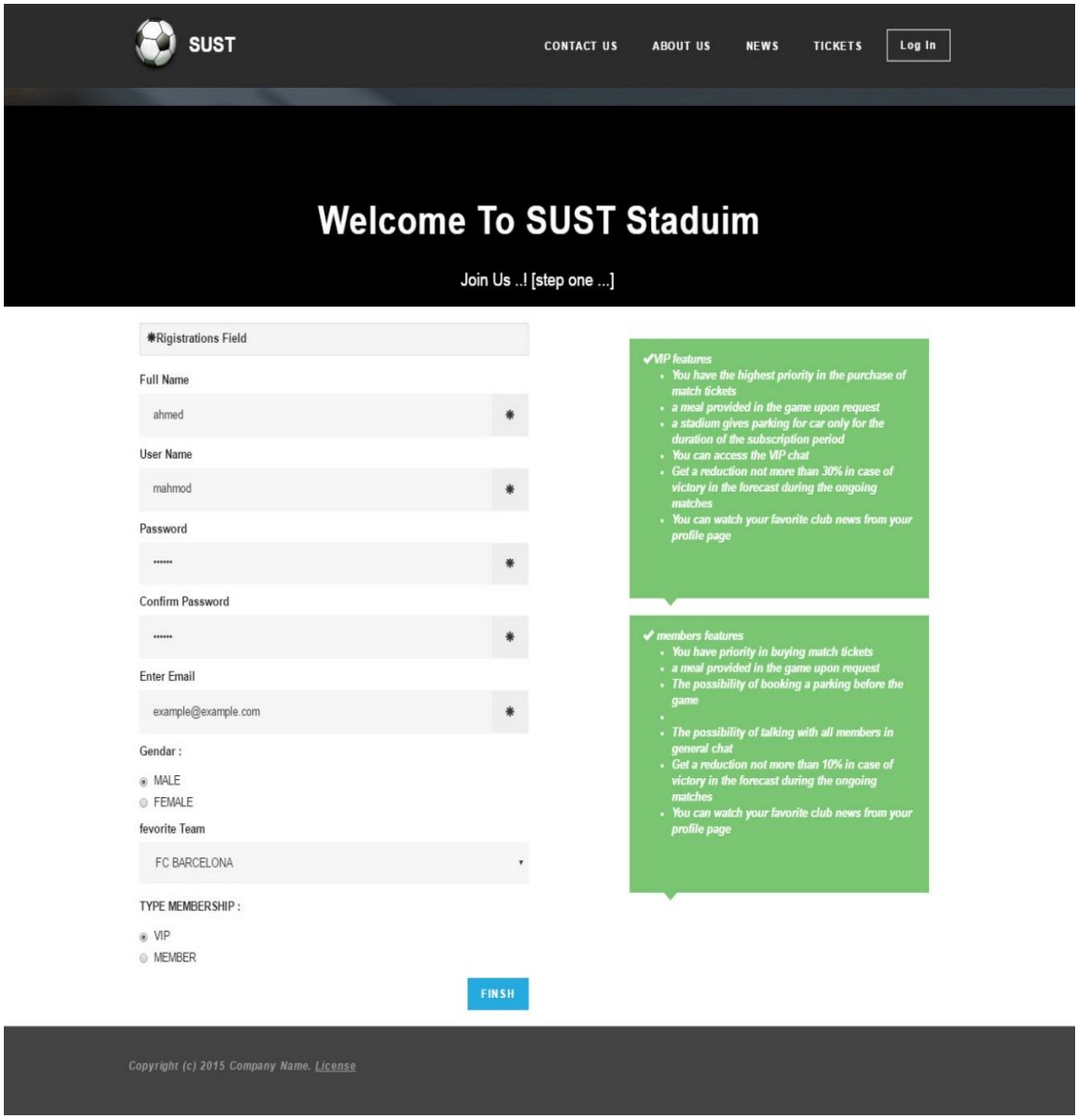


Figure (4.1) screen shows the required information user has to fill-in in order to register into the system, then clicks on finish button to complete the registration process.

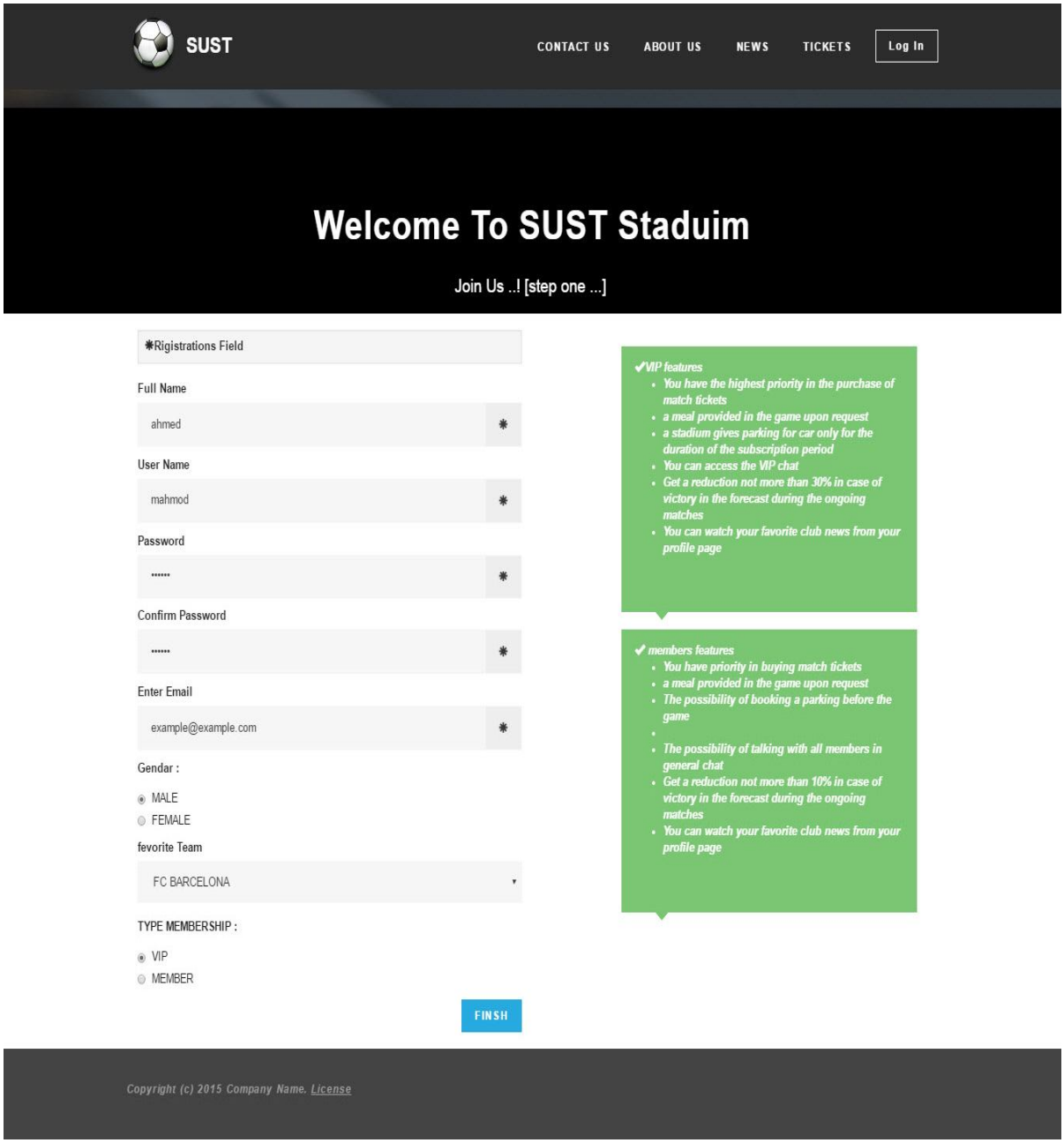


Figure (4.2) shows the information filled up by the user.

4.2.2 LOGIN:

If the user correctly filled-in the required information he will be redirected to the login page, then he will be required to use his username and password to login into the system.

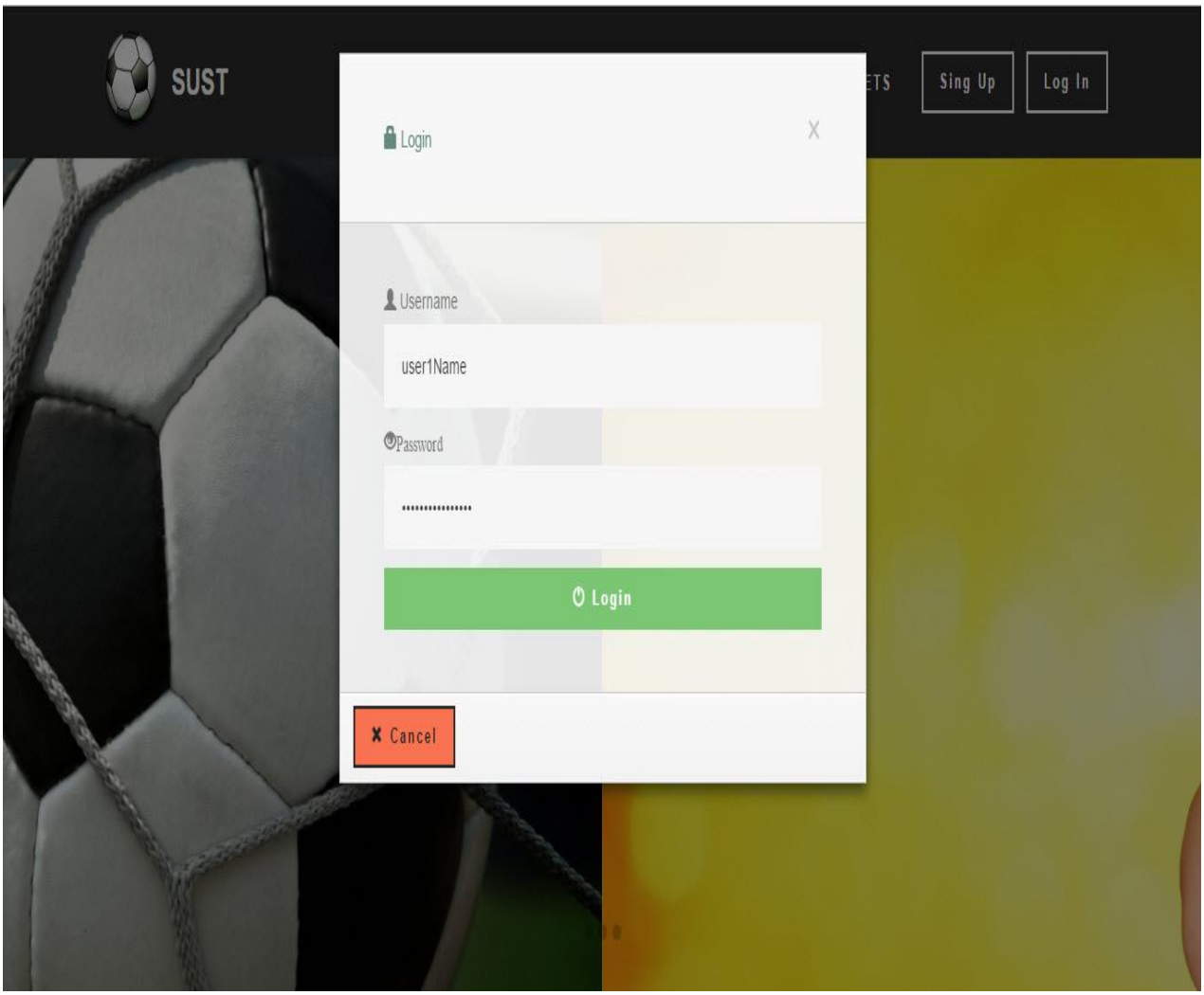
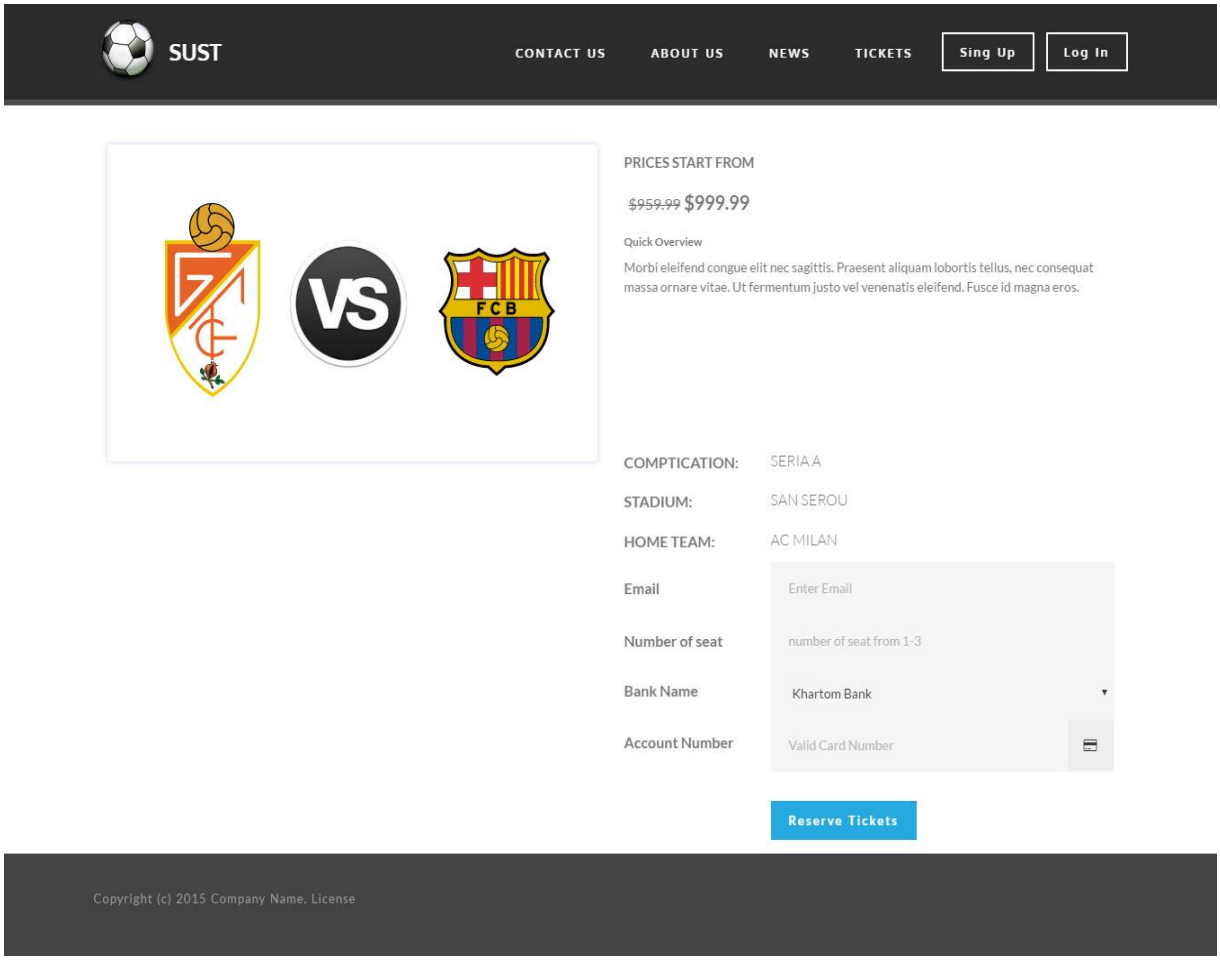


Figure (4.3) shows the login form .if the username and password are valid then the user has to be one of four types of users (Admin, VIP member, normal member, or visitor).

4.2.3 BOOKING:

THERE ARE THREE TYPES OF BOOKING A SEAT:



4.2.3.1 BOOKING AS A VISITOR :

Figure (4.4) shows a visitor's tickets reservation interface.

4.2.3.2 BOOKING AS NORMAL MEMBER:

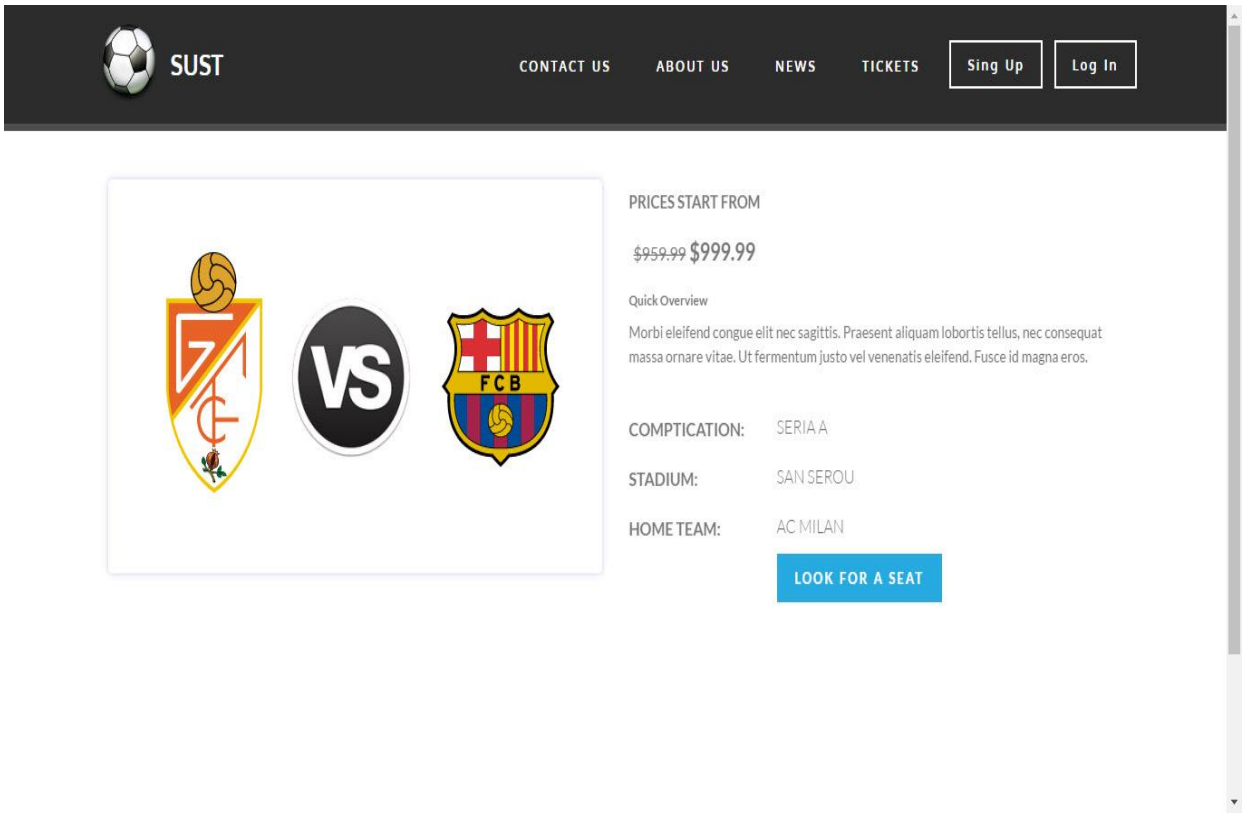


Figure (4.5) shows a normal member's tickets reservation interface.

When the normal member clicks on look for a seat button it shows the following:

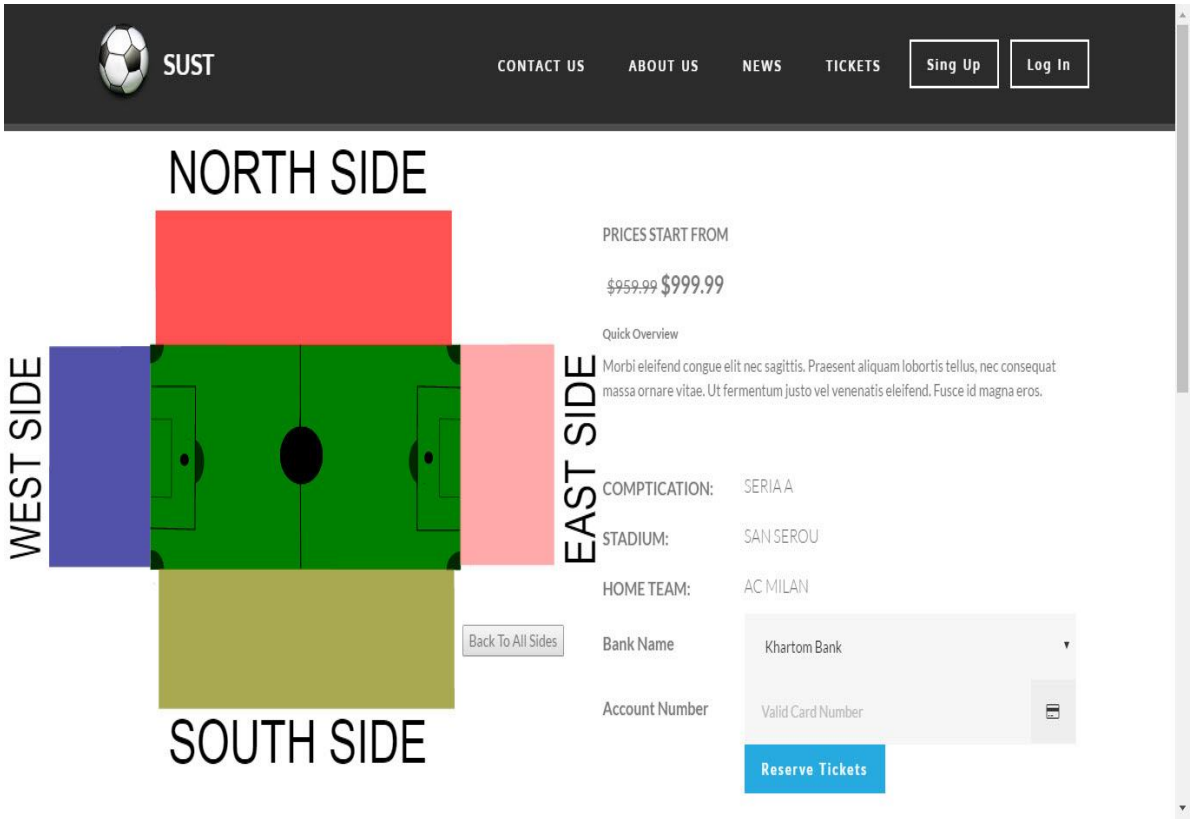


Figure (4.6) shows the normal member's tickets reservation interface.

4.2.3.3 BOOKING AS A VIP MEMBER:

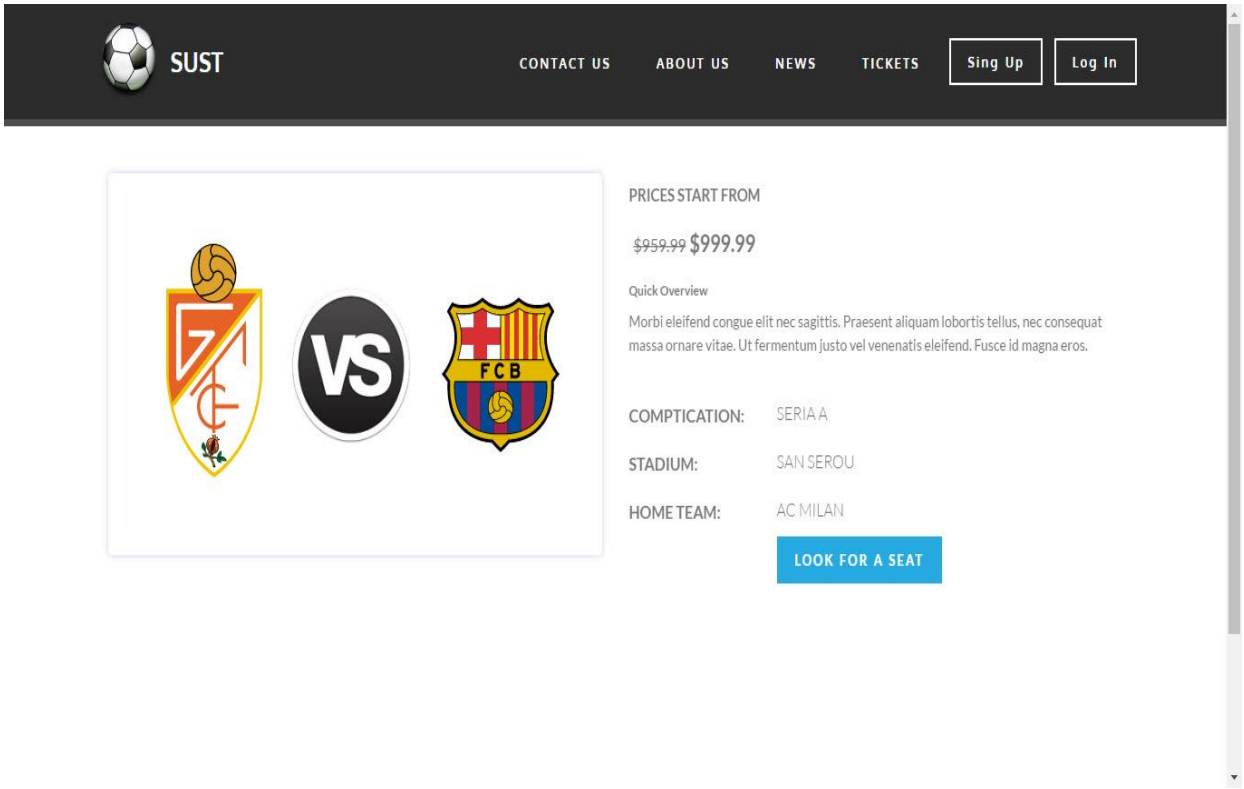


Figure (4.7) shows the VIP member's tickets reservation interface.

When the VIP member clicks on look for a seat button it shows the following:

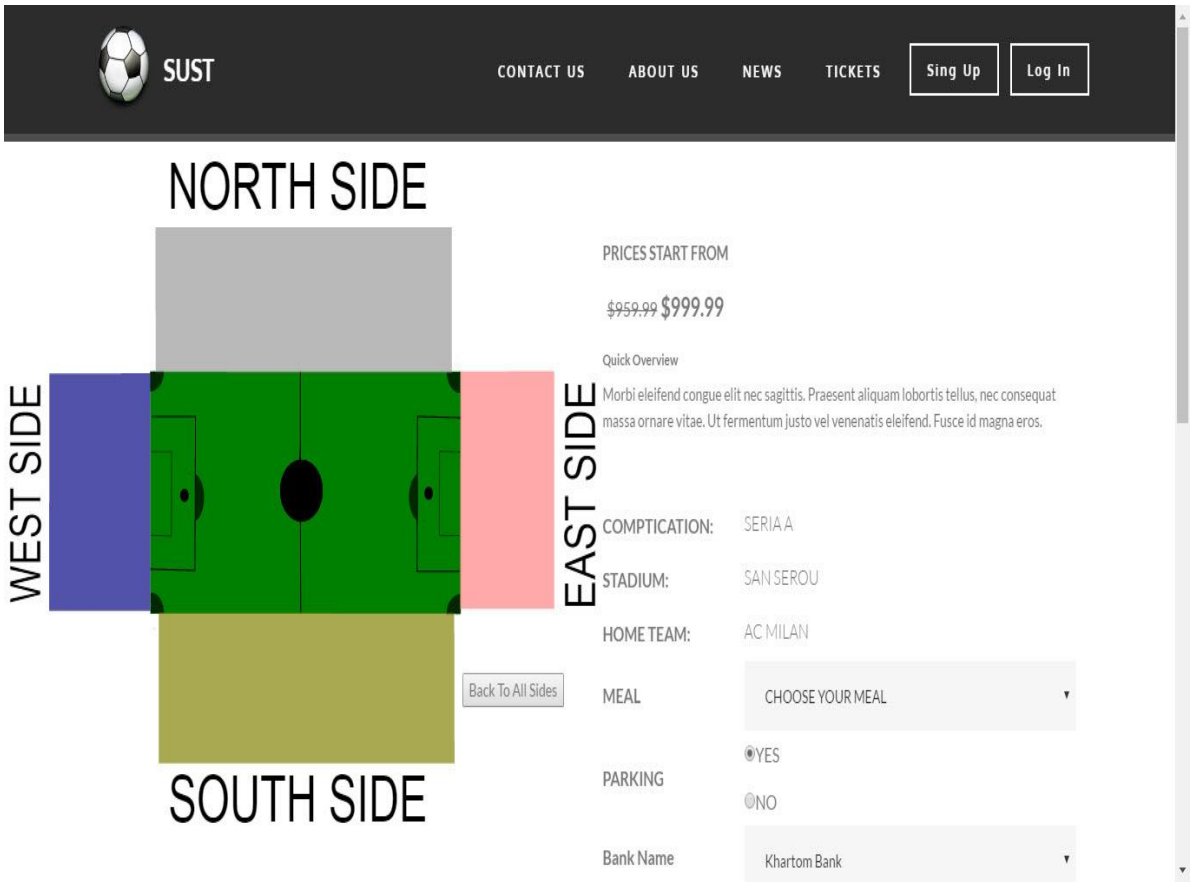


Figure (4.8) shows the VIP's tickets reservation interface.

4.2.4 PAYMENT:

ALL USERS MUST INSERT THE PAYMENT DETAILS TO PURCHASE A TICKET:

a) The bank name.
b) Account number.

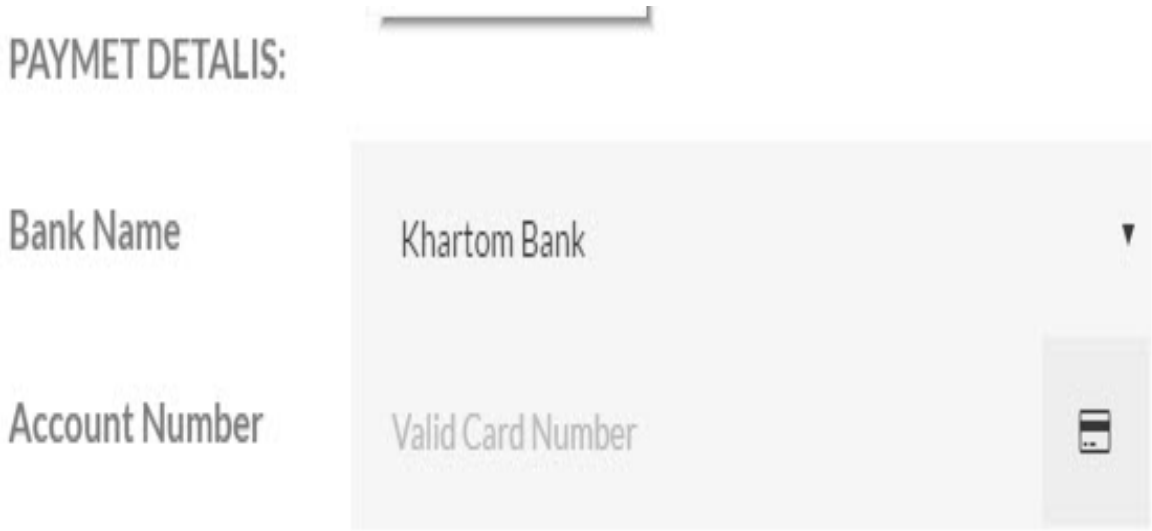


Figure (4.9) shows payment details.

4.2.5 HOME PAGE:

THE HOMEPAGE THAT APPEAR TO THE USERES WHICH IT CONTAINS:

4.2.5.1 NEWS :

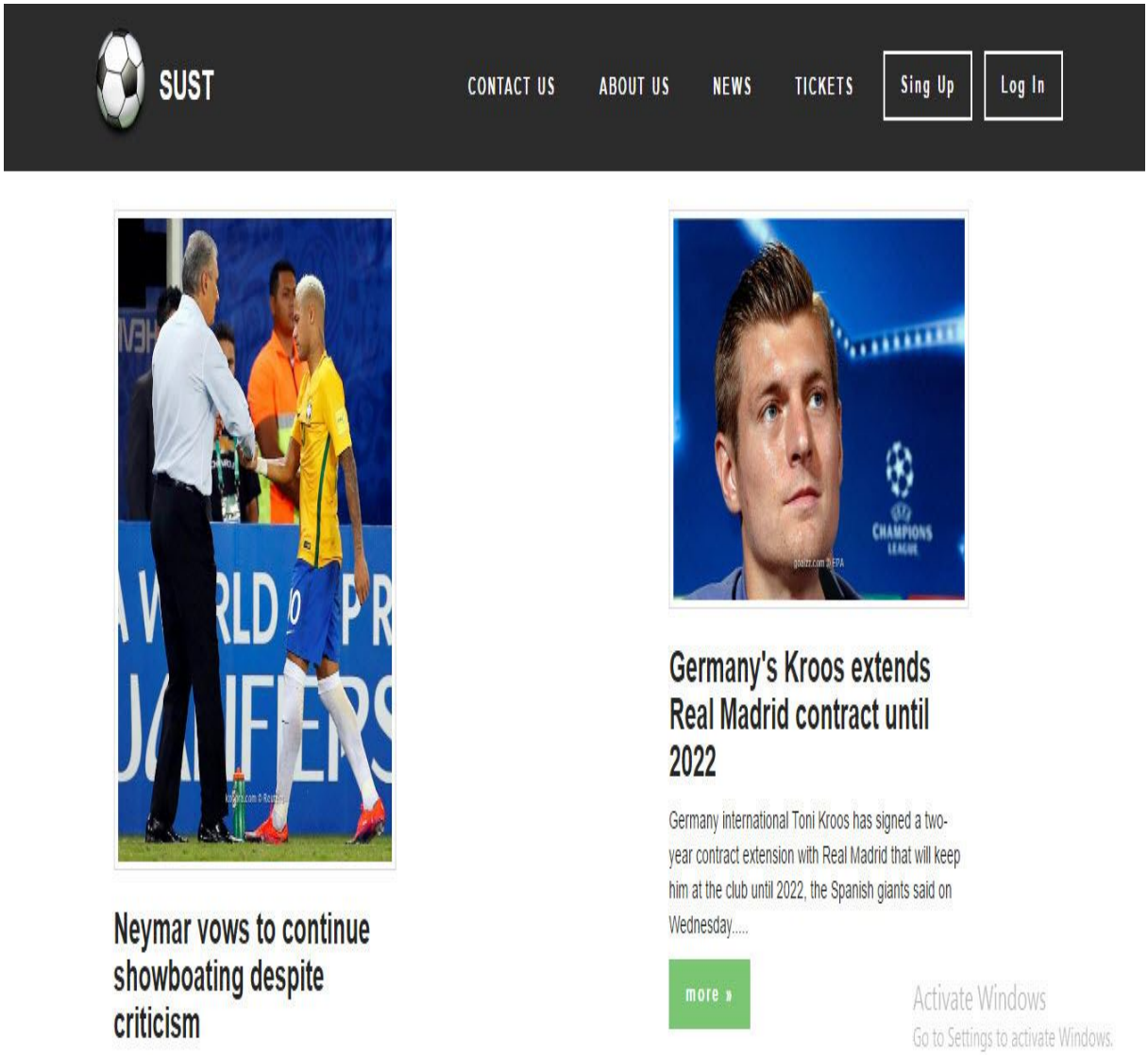


Figure (4.10) shows a form that let users to see news about their favorite team.

4.2.5.2 CONTACT US:

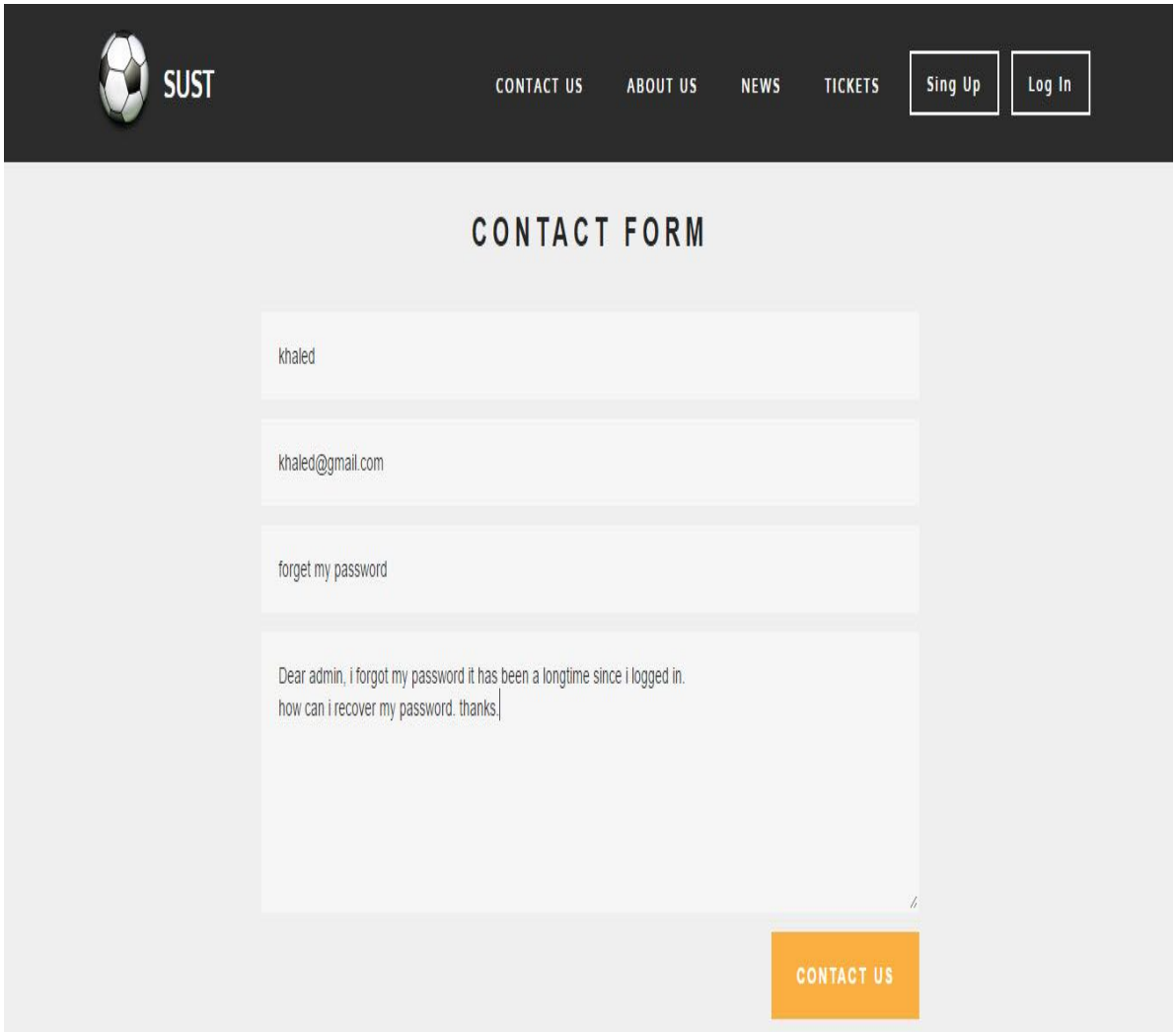


Figure (4.11) shows a contact form through which fill the required information then clicks on contact us button to send a message to the admin.

4.2.5.3 ABOUT US:

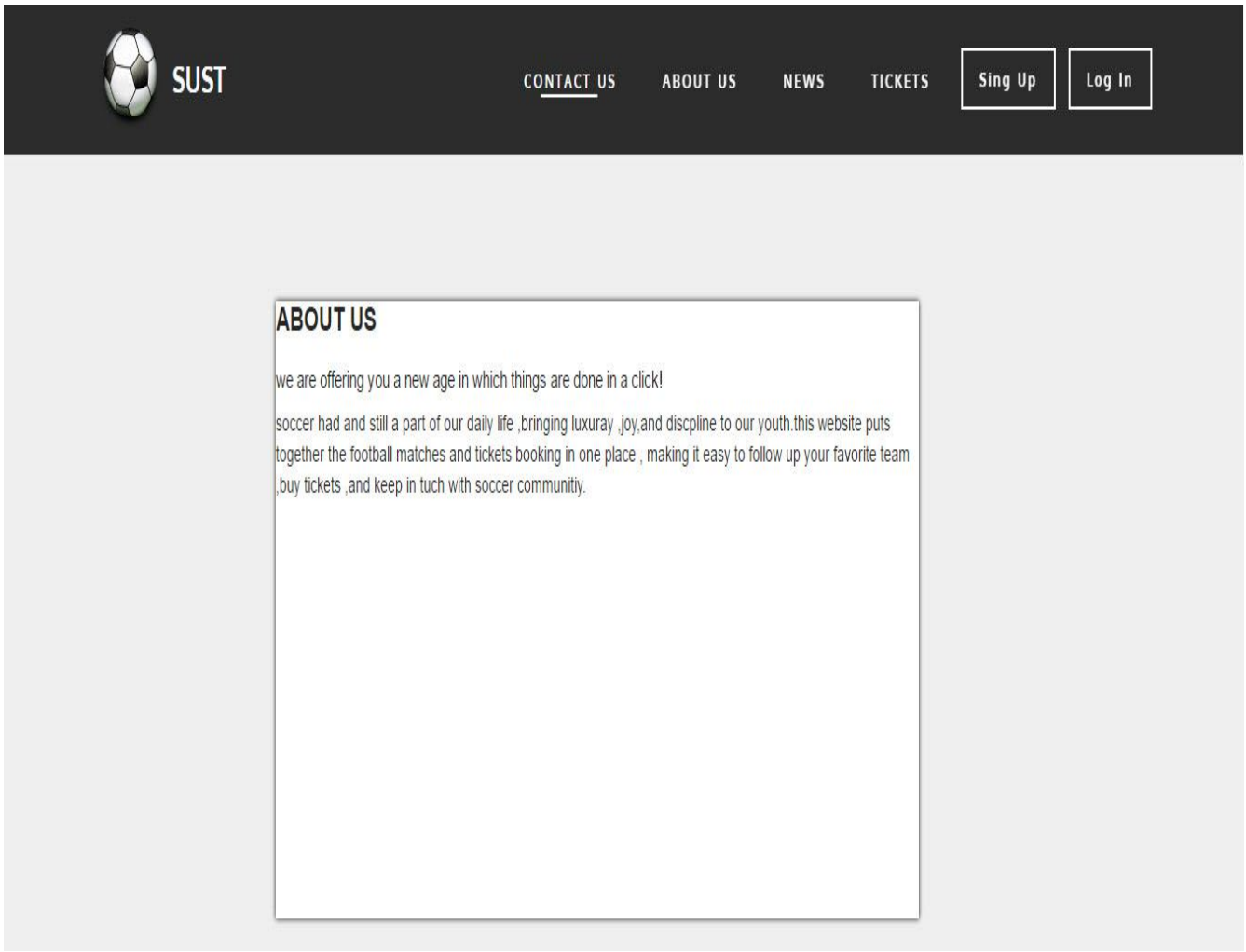


Figure (4.12) shows about us form. Which contains a general message about the website.

4.2.6 ADMIN OPERATIONS:

- **INSERT NEWS FORM:**
  The Admin has to provide the flowing:
  1) Title of the content.
  2) The content body.
  3) A descriptive image (maximum size 5MB, allowed extensions are JPG, PNG, JEPG).

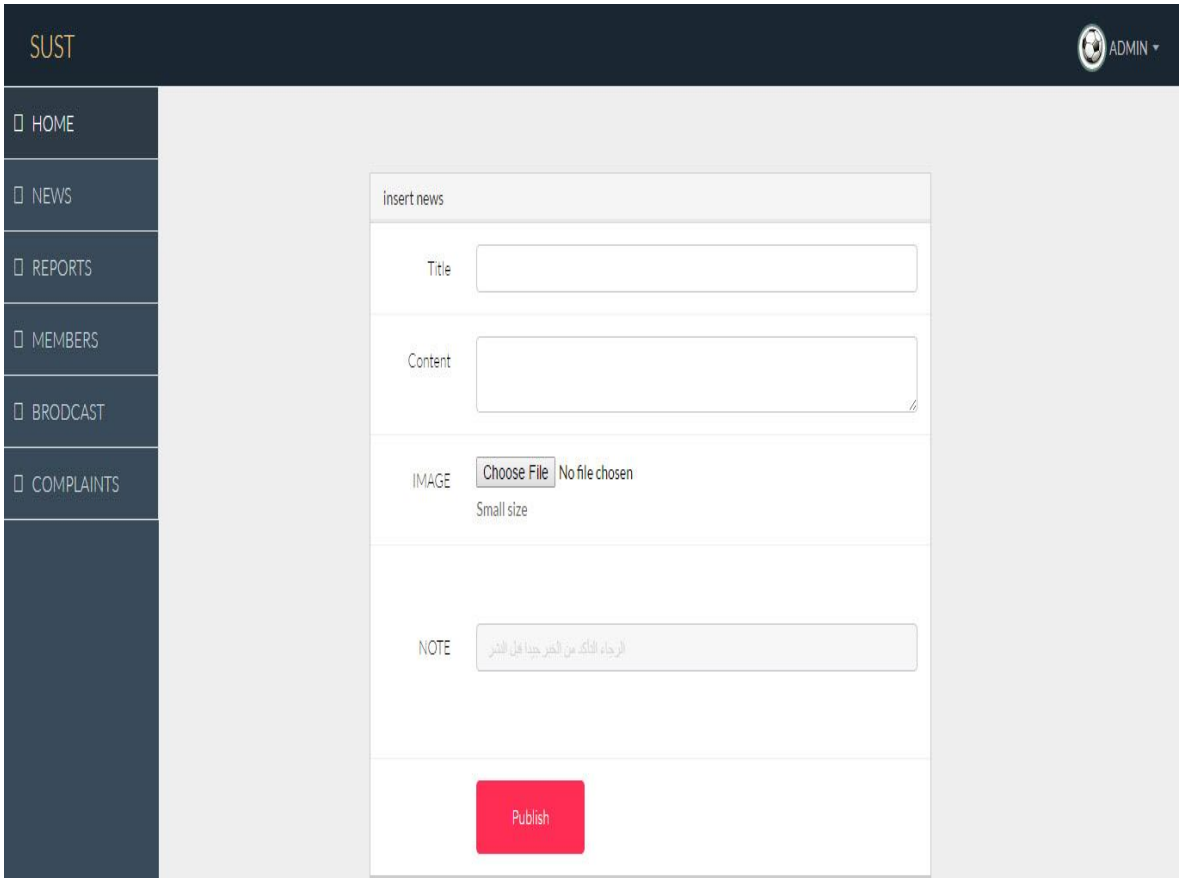


Figure (4.13) shows a form that enables the Admin to add new news, then clicks on publish and the content will be viewable for the system users.

- **UPDATE NEWS FORM:**

  Before updating news they have to be exist.
  The admin uses the content title to search for specific news. Titles could be too long to be memorised so by using autocomplete it gives the ability to show the titles that contain the entered letters.
  If title exists the admin can modify the content title, content body or content image.

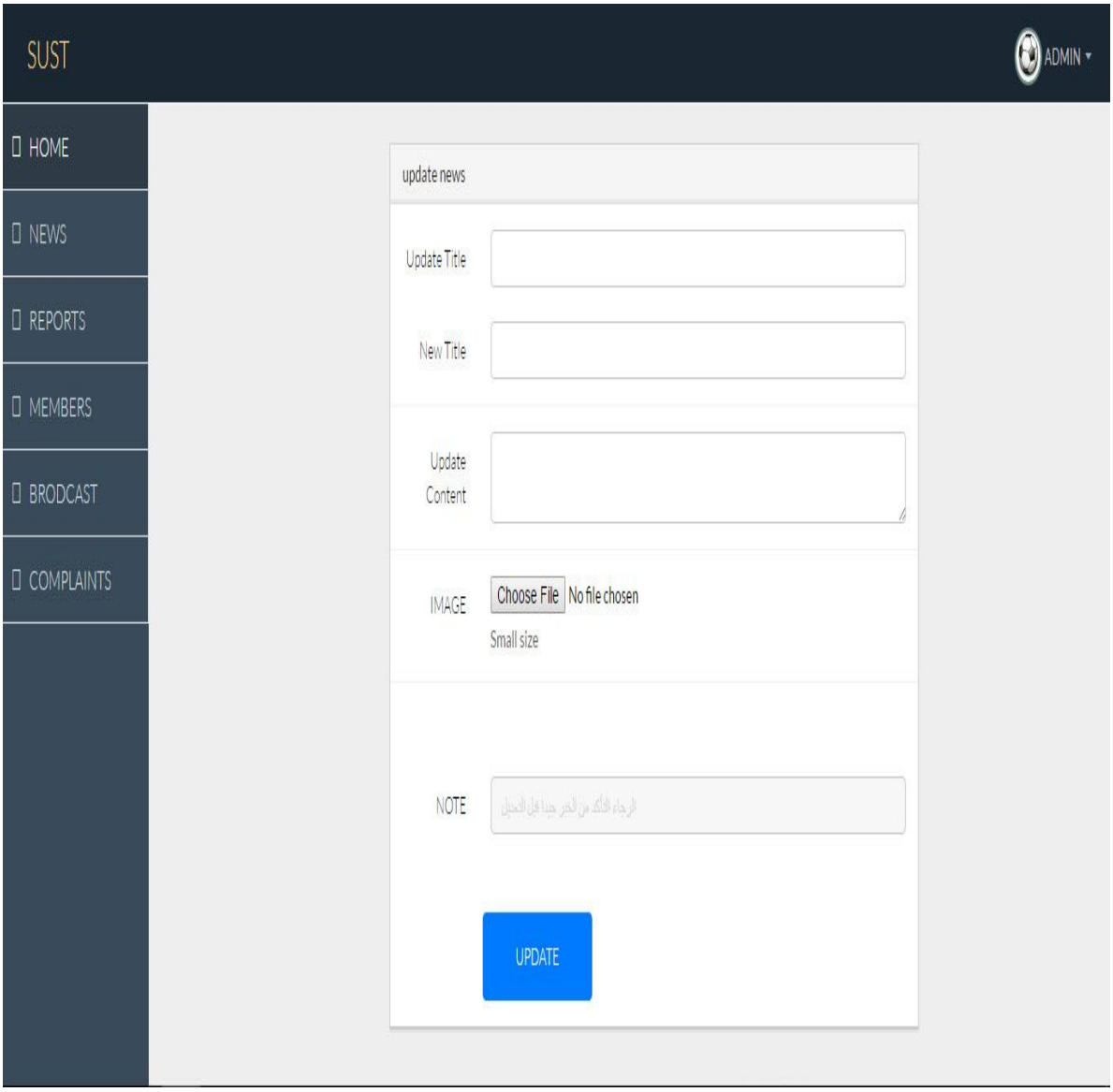


Figure (4.14) shows update news form. Admin fills in update information then clicks onUpdate button.

- **DELETE NEWS FORM:**
  Before deleting content, it has to be exist.
  The admin uses content title to search for specific content. Titles could be too long to be memorised so by using autocomplete it gives the ability to show the titles that contain the entered letters. If title is found then the admin deletes it.

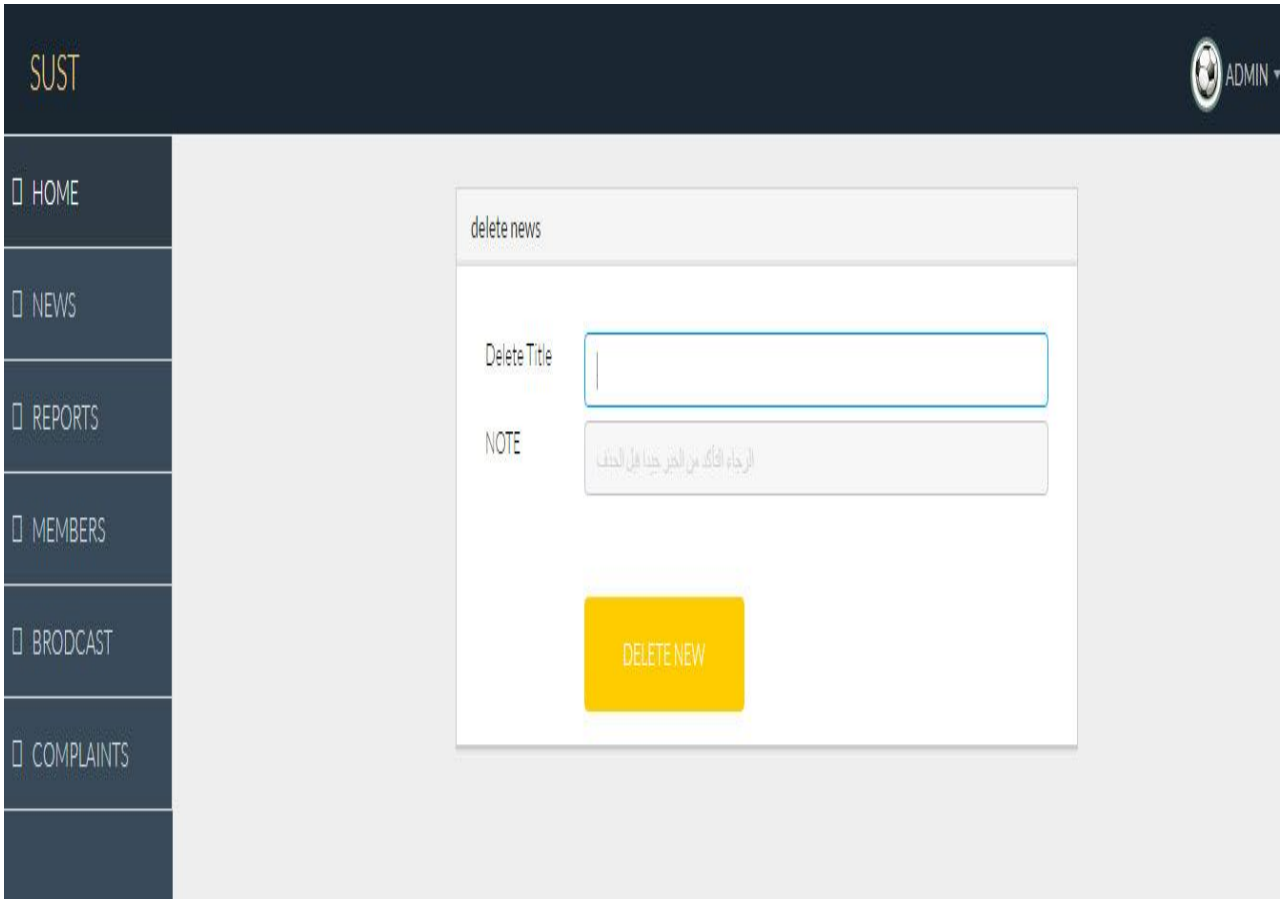


Figure (4.15) shows delete news form. Through which admin can delete news by filling required information then clicks on delete content.

- **REPORTS:**
  The system provides the admin with monthly reports.

➢ **MONTHLY REPORTS:**

Contains total number of sold tickets, number of tickets bought by normal members, VIP members, visitors and total amount of money earned for the specified month.

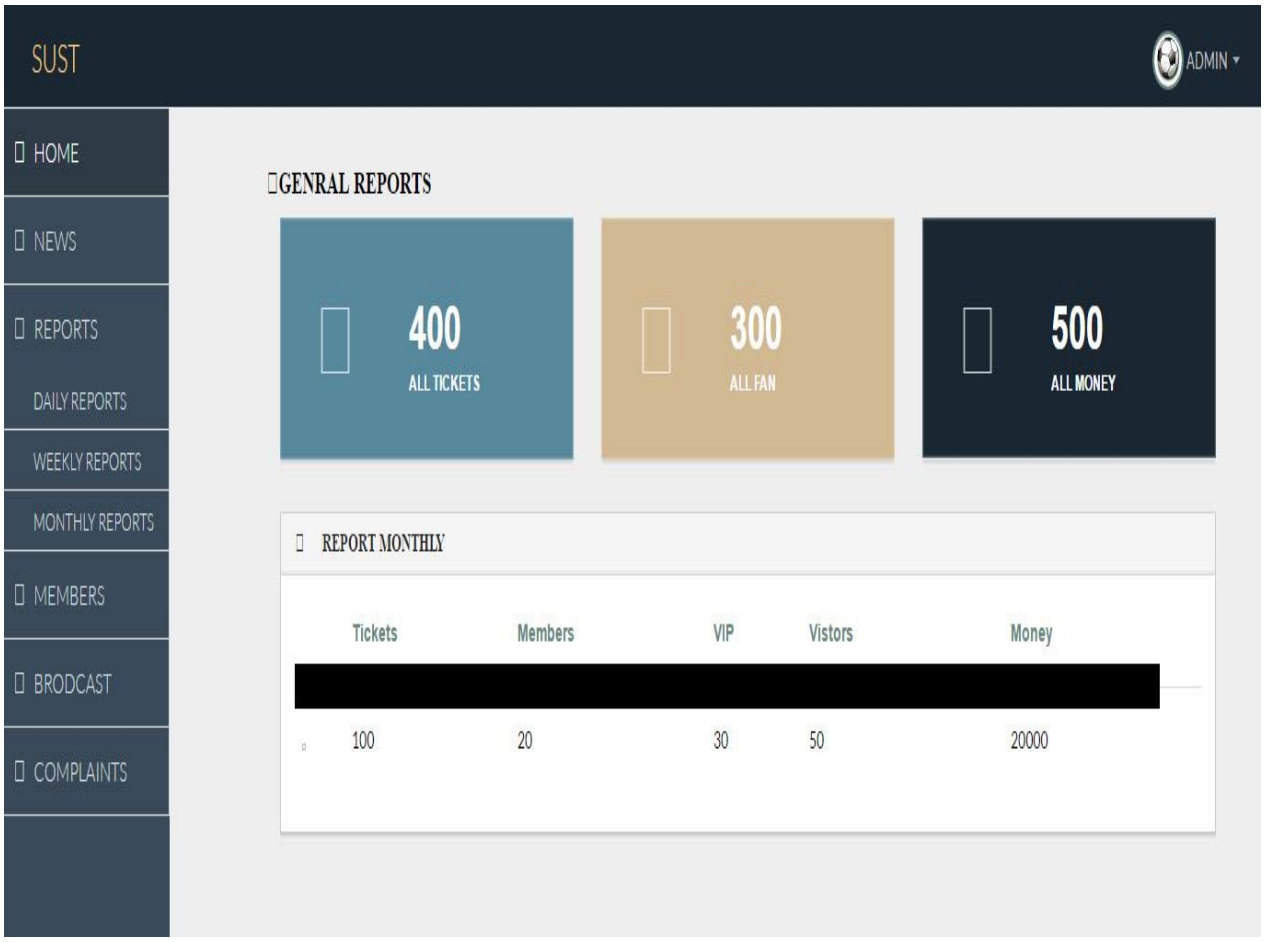


Figure (4.16) shows monthly report along with general report that contains total Number of tickets, fans and total amount of money.

MEMBERS:

There are two types of members: normal members and VIP members.

NORMAL MEMBERS:

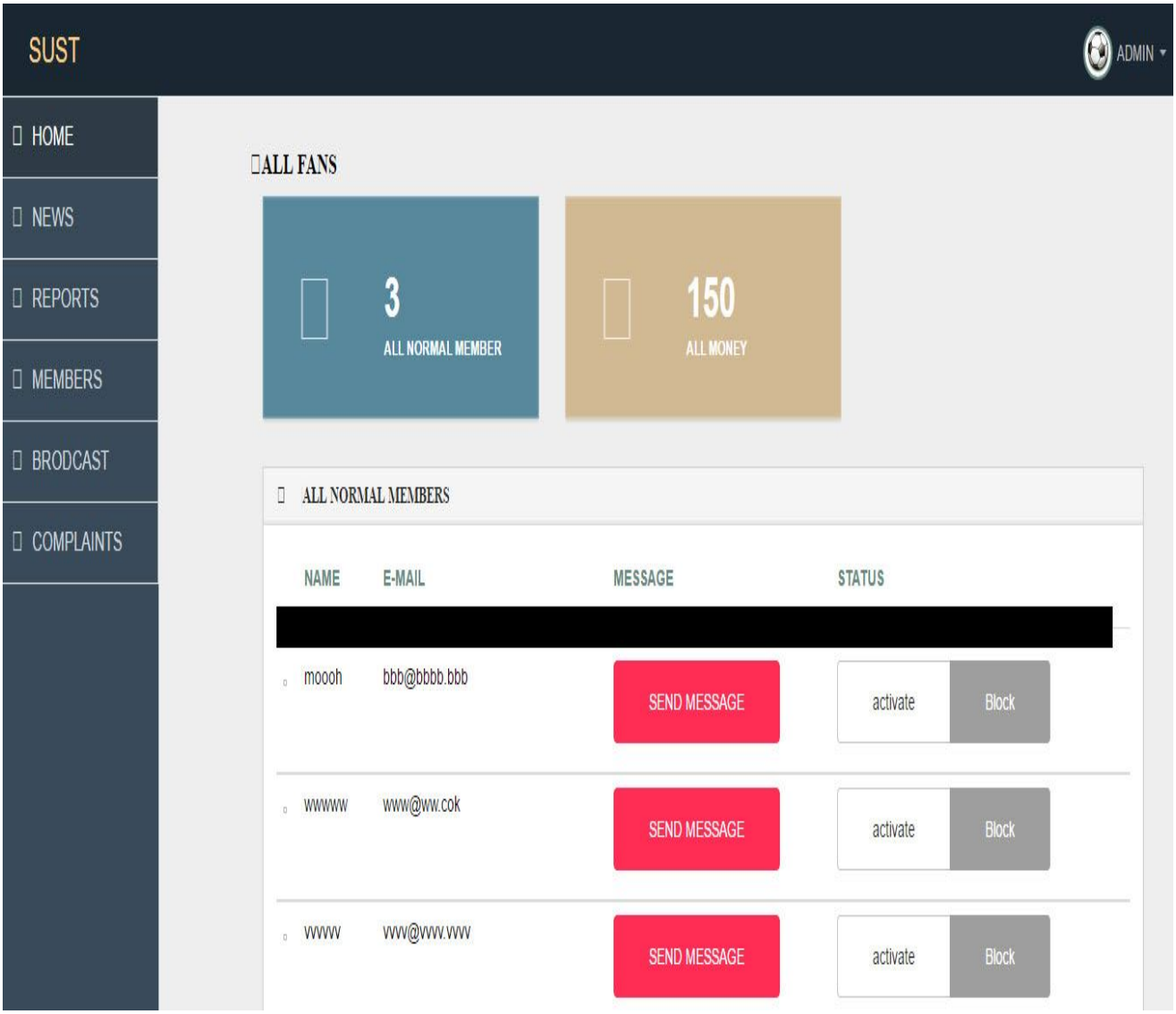


Figure (4.17) shows normal members form that contains total number of normal members and total amount of money. Through this form admin can toggle the member status between Activate and block, and can also send a message to specific normal member.

VIP MEMBERS:

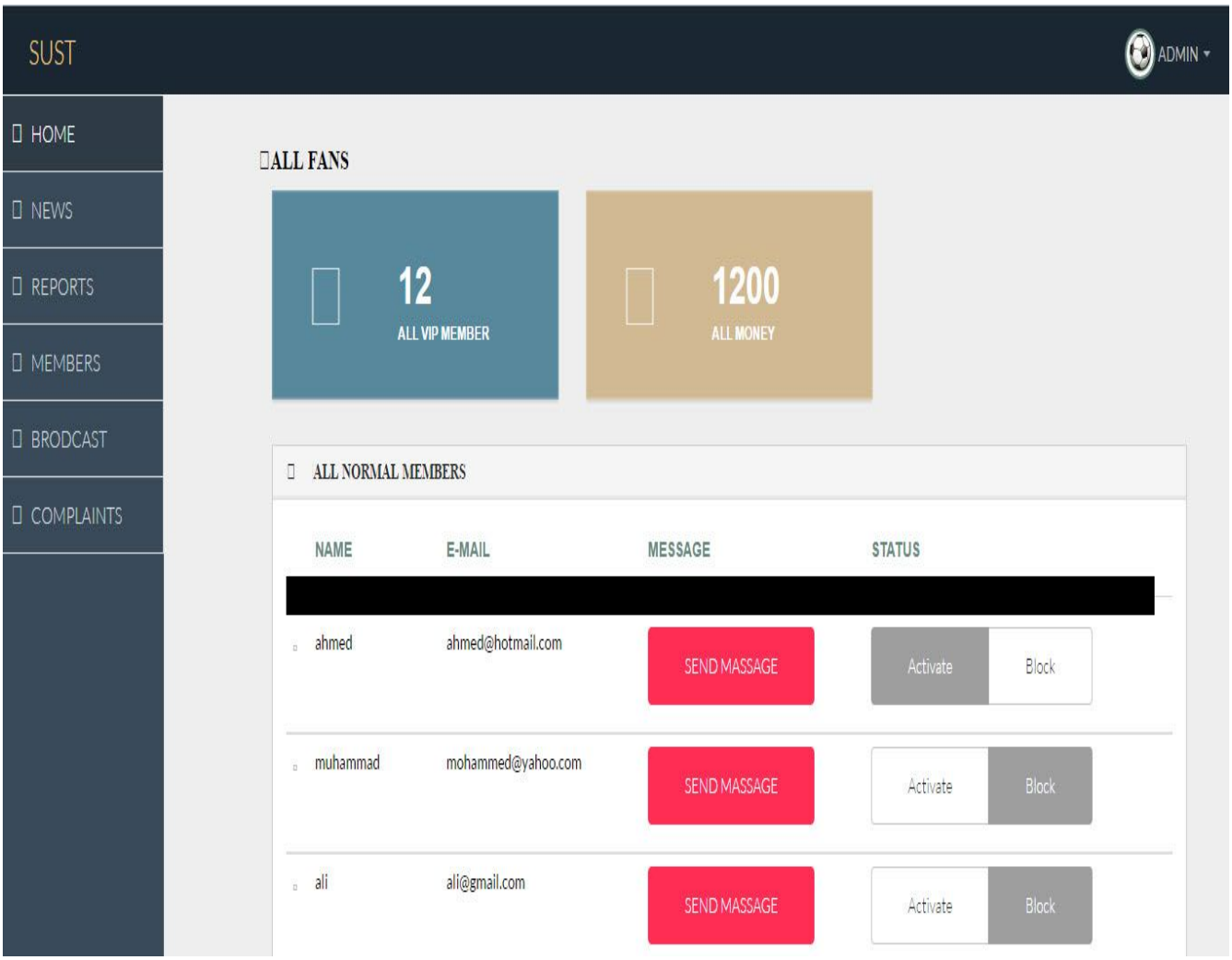


Figure (4.18) shows VIP members form that contains total number of VIP members and total amount of money. Through this form admin can toggle the member status between Activate and block, and can also send a message to specific VIP member.

COMPLAINTS FORM:

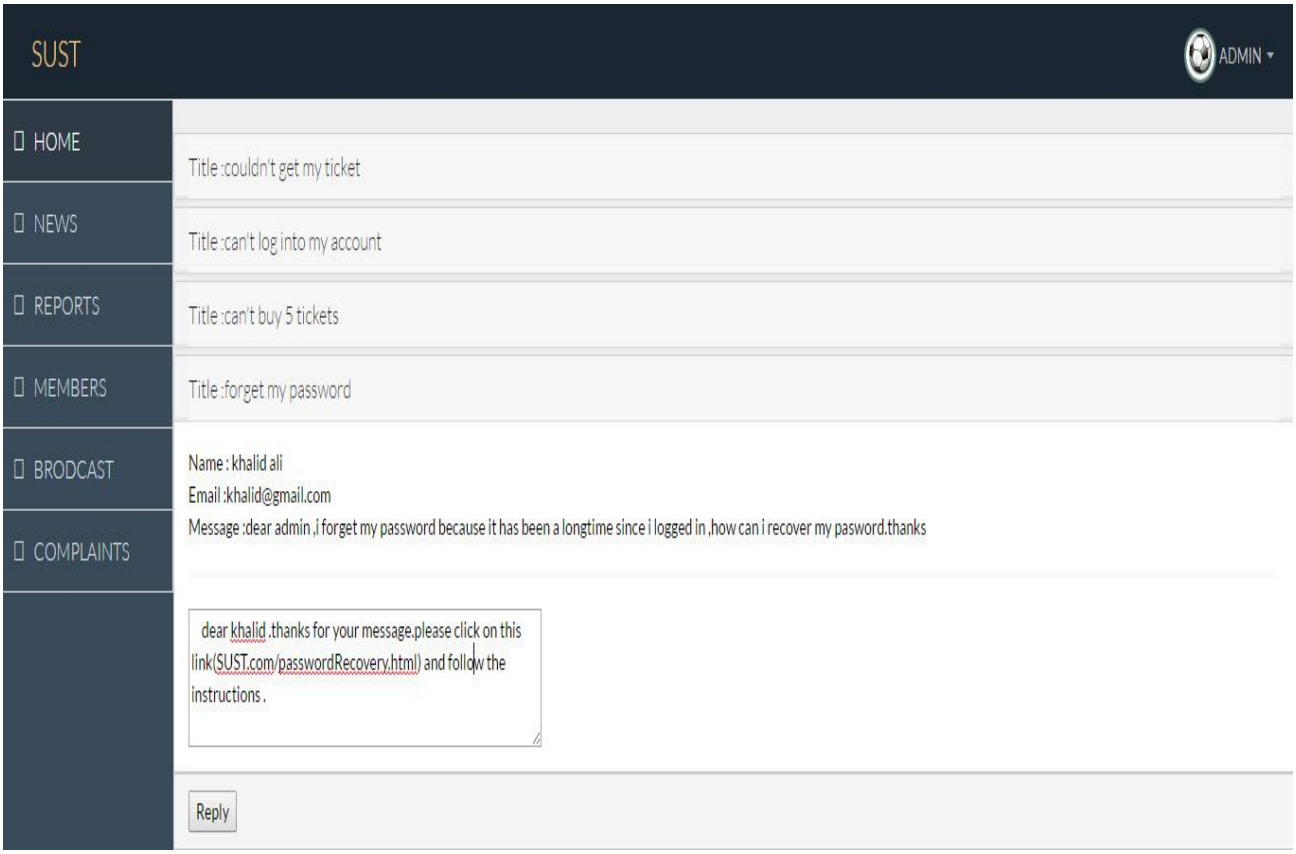


Figure (4.19) shows a form through which admin receives member's complaints and gives a proper replay.

BROADCAST:

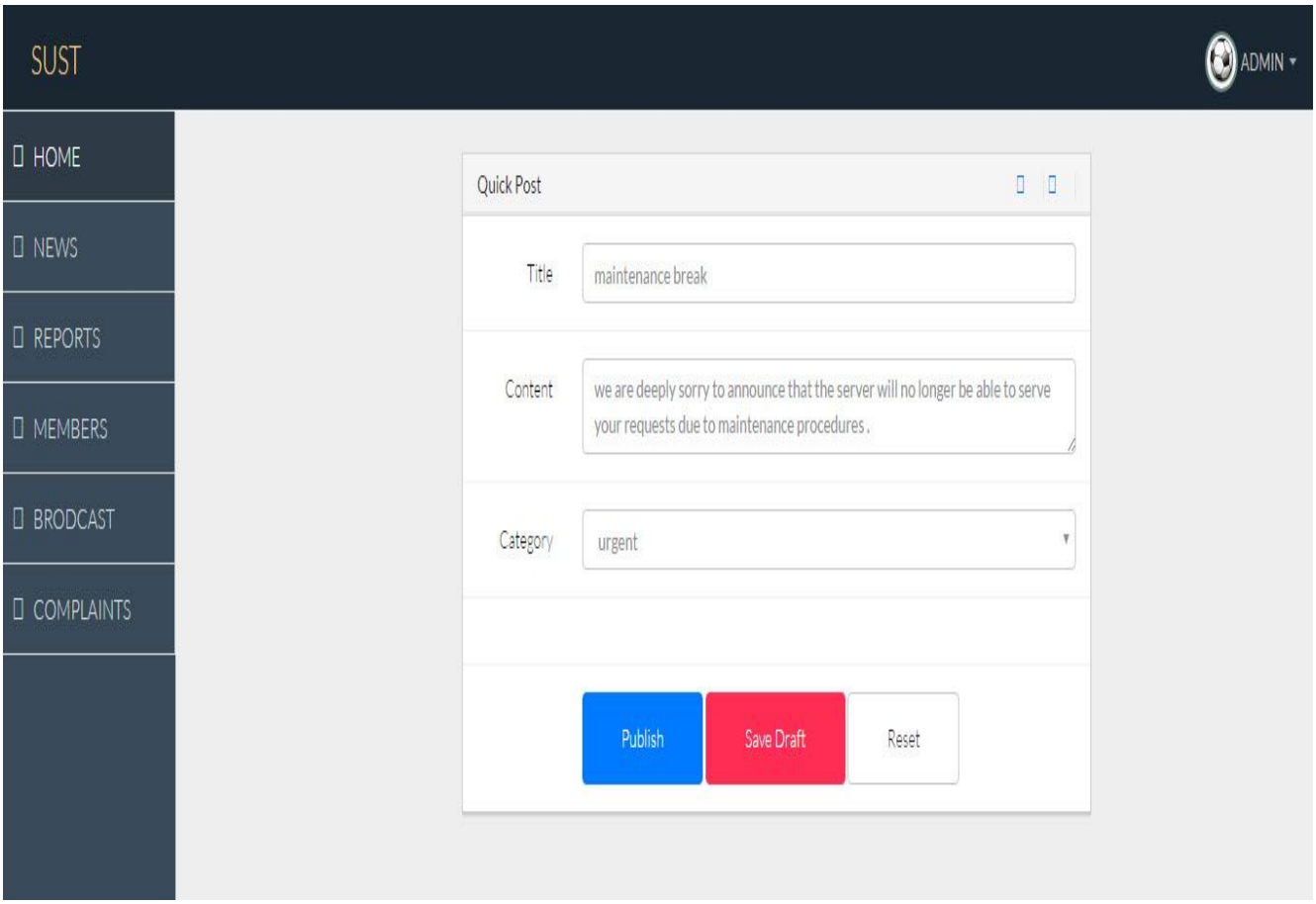


Figure (4.20) shows a form through which admin can type a message and clicks on publish to send it to all members or save it as draft for later use.

CHAPTER 5
RESULTS, CONCLUSION, RECOMMENDATION

5.1 INTRODUCTION:

This chapter is divided into two sections, the first section discusses the final results of the System, and the second Section discusses the conclusion and recommendations.

5.2 RESULTS:

THIS STUDY HAS RESULTED INTO THE FOLLOWING:

- The system has successfully saved customer's time through online booking.
- The system has reduced the error rate and thus made error correction process much easier.
- The system is integrated with football-data.org through an API, to fetch trusted, real-time football data.
- Fans are kept up to date with real-time news.
- Fan profile is customized depending on fan's favourite team, to be more attractive.
- The system generates timed-reports to reduce the amount of data that the admin have to deal with.
- The system is capable of authenticating it's users during the login, or whenever they request a certain service.
- The system implements an access control mechanism that guarantees the integrity of data.
- The system has likelihood reduced the complexity of interaction between end-users and the system by implementing HCI principles.
- The system enables instant-chat between fans.
- The developed android application has successfully made the system more available, easily accessible, and portable.

5.3 CONCLUSION:

This study reviewed the previous studies that has been undertaken in the field and showed their inefficiencies. That has led to better understandability of the nature of the objectives that the research intended to achieve,and helped in the process of specificationandmodelizationof new system's requirements. Later on we have designed, implemented, tested and validated the system against the specified requirements and user's inputs. That resulted to a web based system that facilitates the process of reserving seats, and keeps fans up to date with real-time football news, furthermore, instant chatting. Thus reducing the time wasted as well as the errors that are involved in the process.

5.4 RECOMMENDATIONS:

There is no perfect work but what we did is a launch for a big project we recommend the following about the system:

1. Adoption of the project by a big company to be developed in the future.

2. Developing an API for Sudan local competitions, to be integrated with the system.so that Sudanese fans would be able to follow up their local team's news.

3. We encourage local football clubs to participate E-football community by developing their own web-based systems in order to facilitate the process of tickets purchasing, and to enable fans to follow up football news.

4. There is need for the system upgrade as user's requirements change. User's requirements differ with time, therefore, it's of great help for the system to be more flexible.

5. Backups should be done frequently to avoid data loss in case of hardware or software malfunction.

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APPENDICES

1- APPENDIX A:

•SYSTEM VALIDATION:

1- USER'S AUTHENTICATION

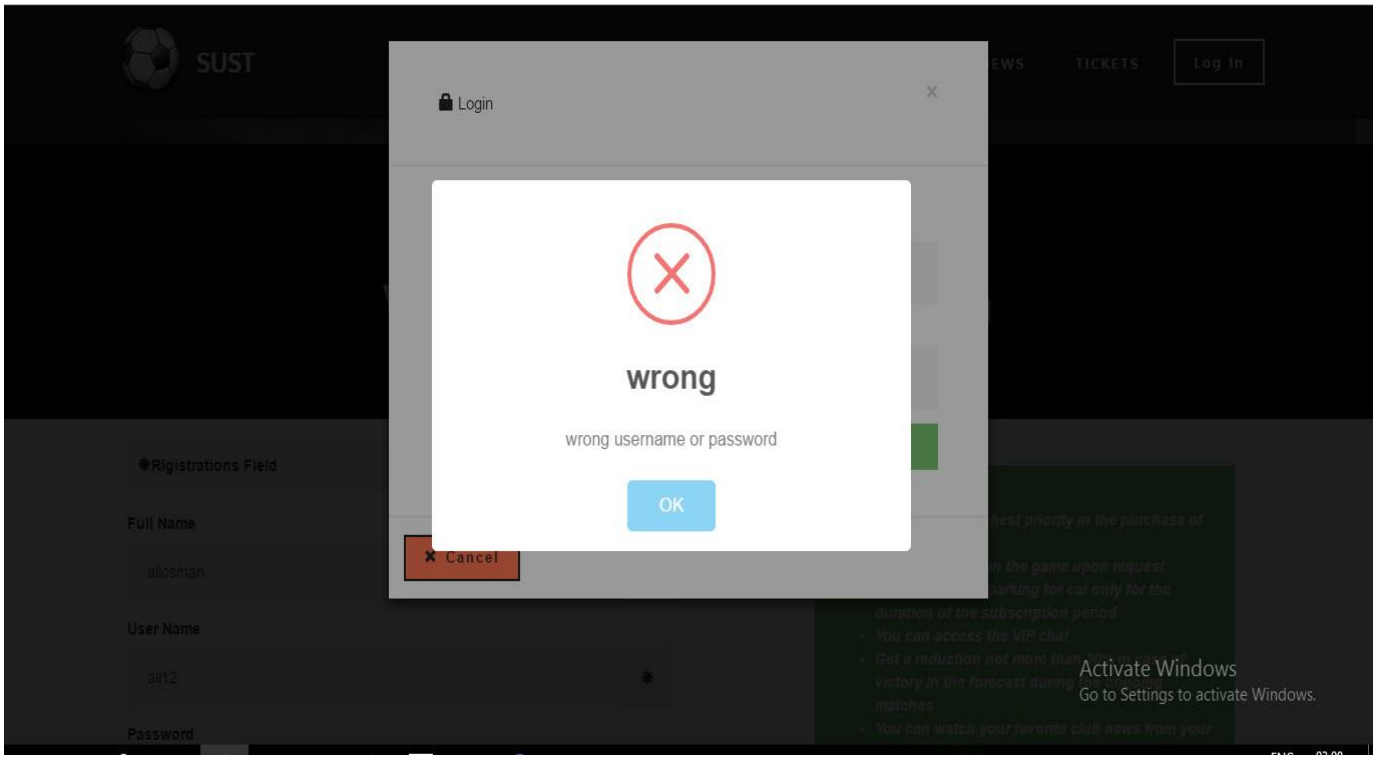


Figure (5.1) shows username or password does not match user account.

2- VALIDATION OF REGISTRATION DETAILS :

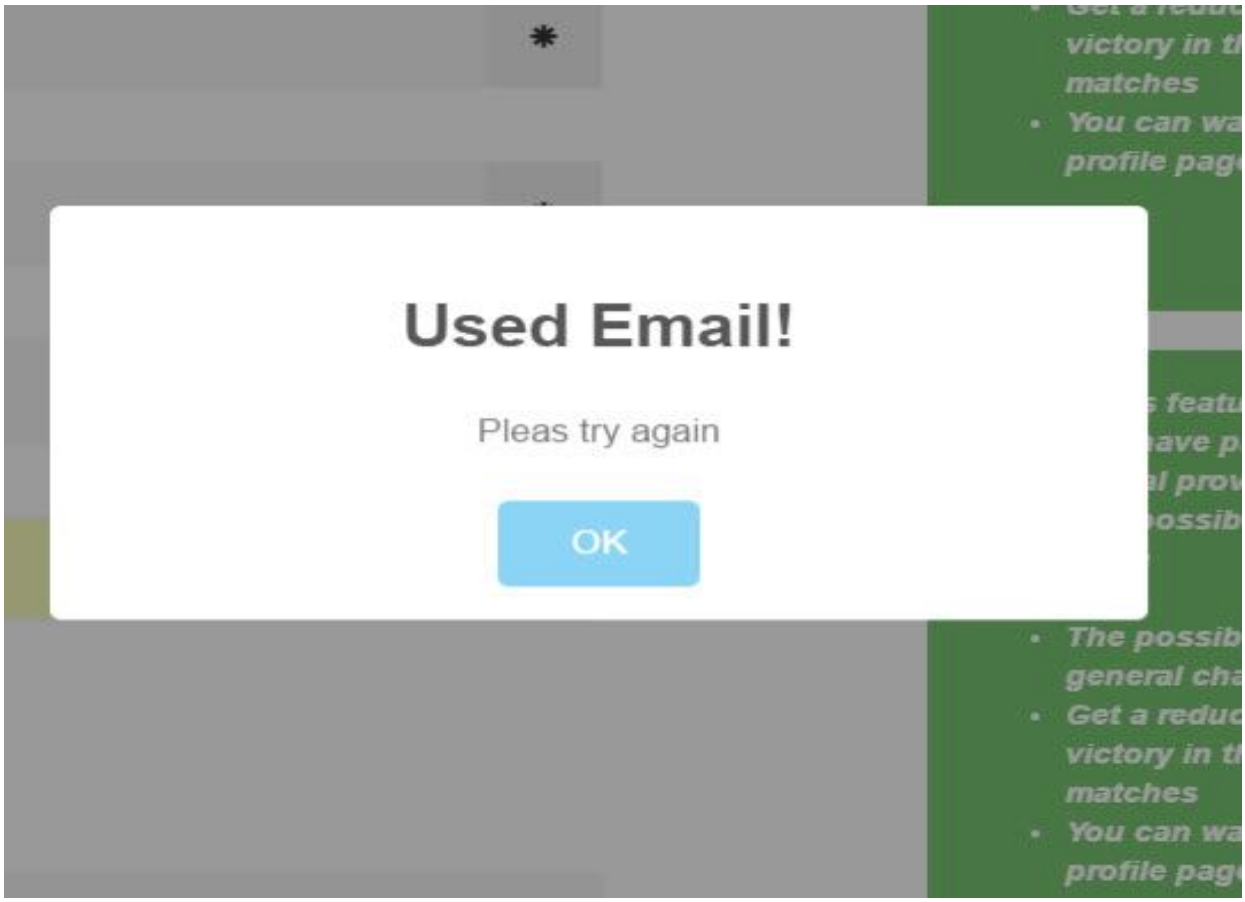


Figure (5.2) shows E-mail is already taken.

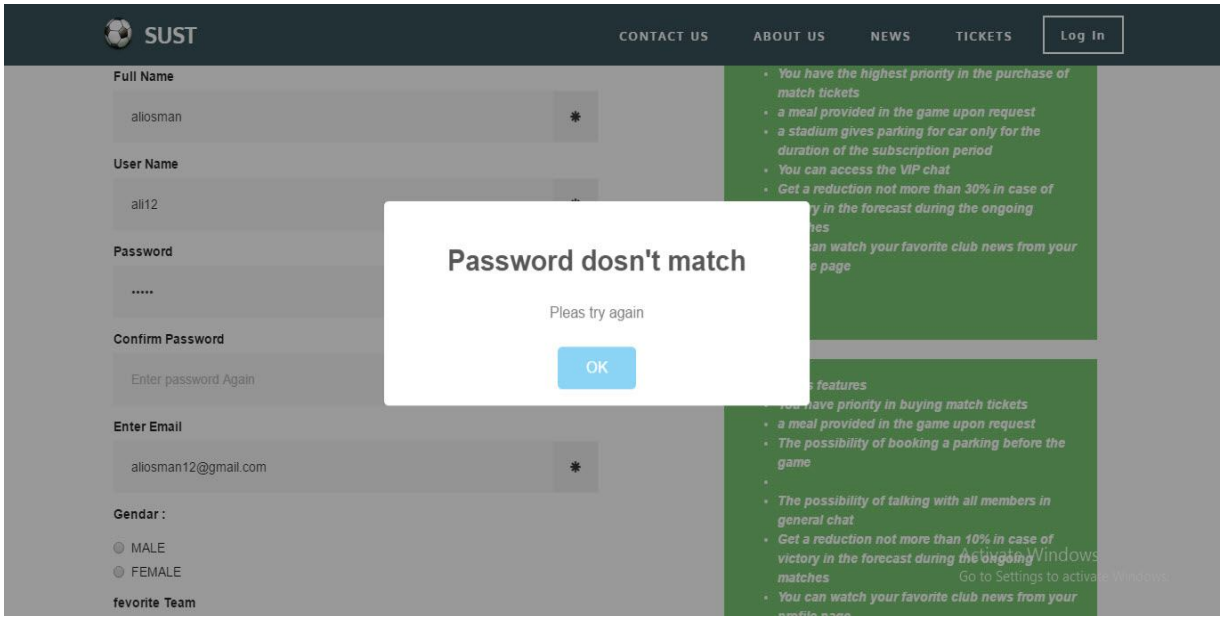


Figure (5.3) shows passwords do not match.

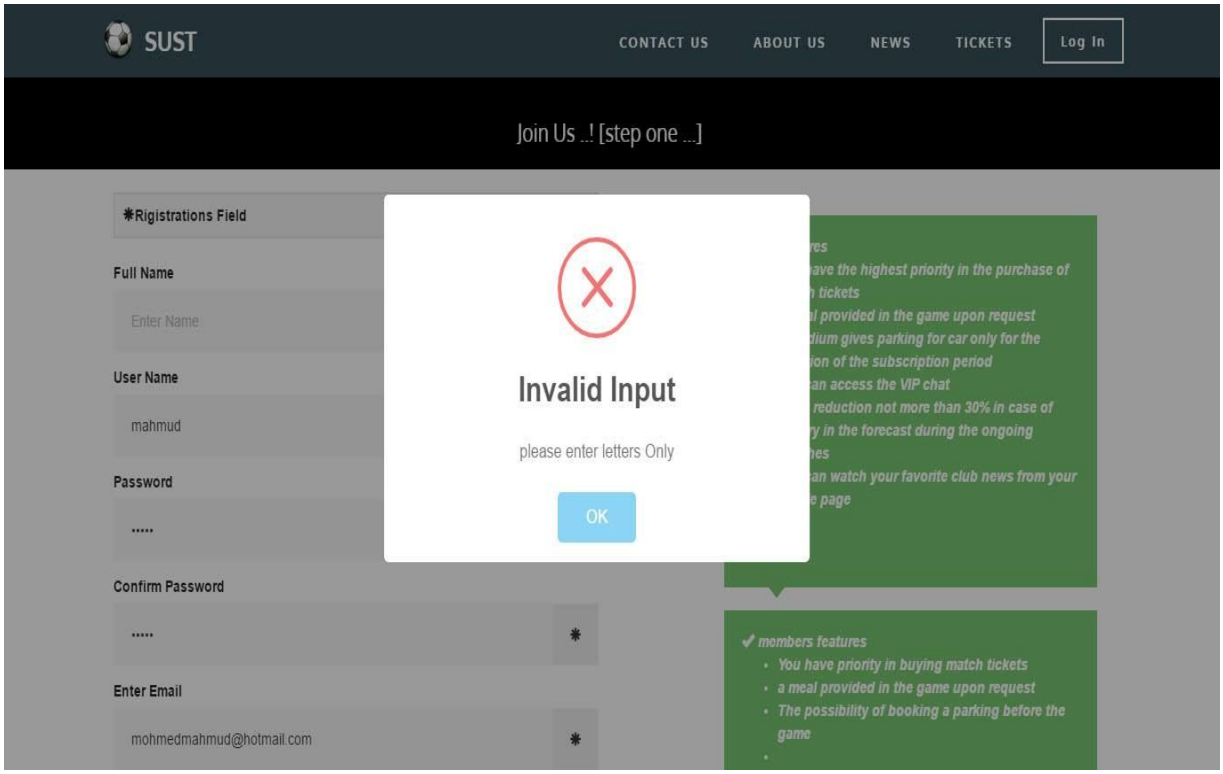


Figure (5.4) shows validating inputs against data types.

- **FEEDBACKS:**

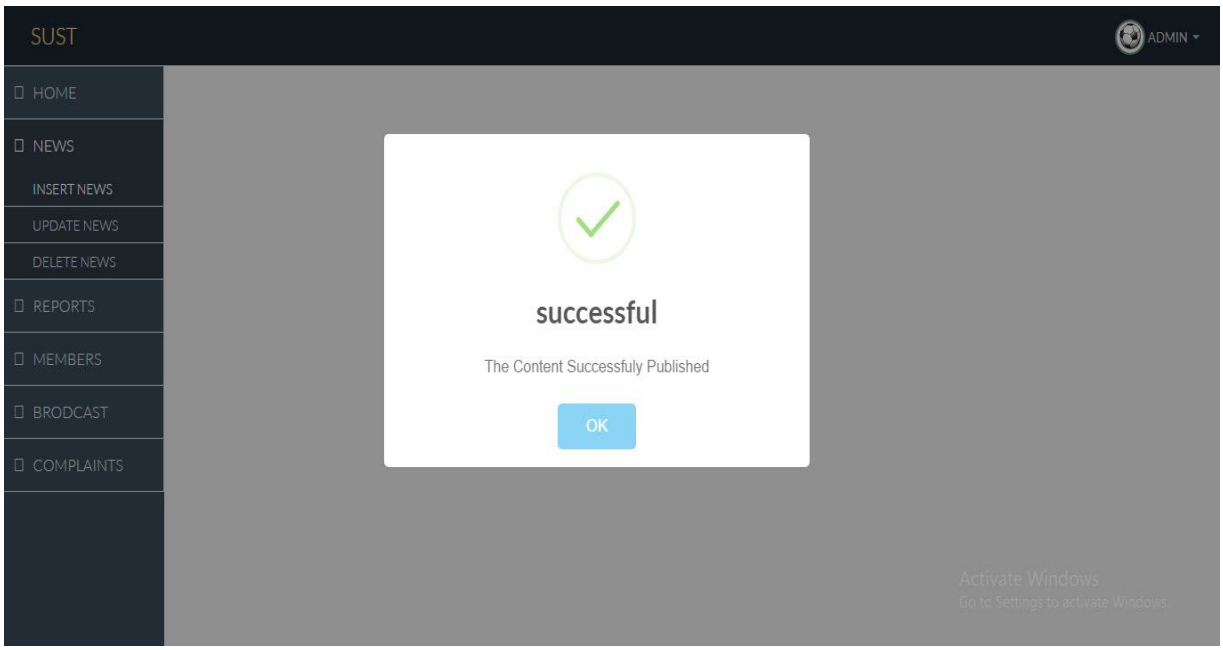


Figure (5.5) shows that content successfully published.

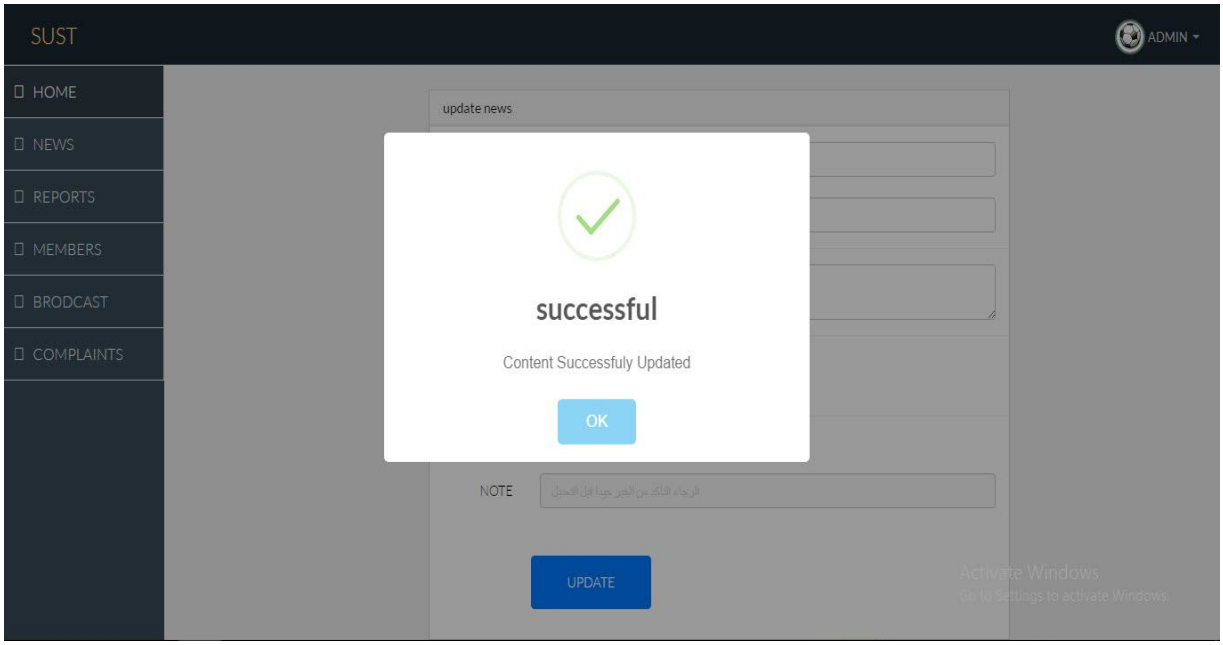


Figure (5.6) shows that content successfully updated.

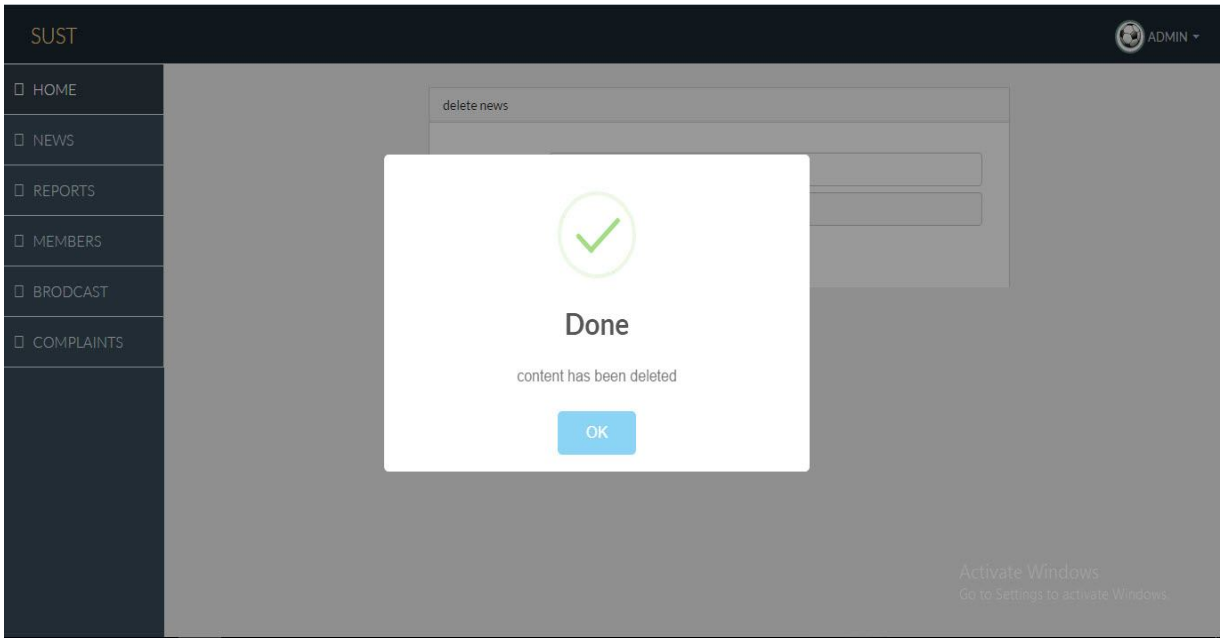


Figure (5.7) shows that content successfully deleted.

APPENDIX B:

•EXPLAINING UML NOTATIONS:

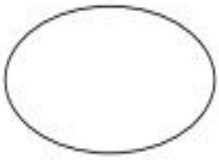
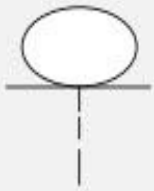
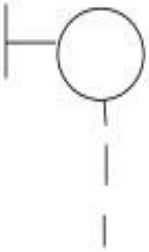
Explain Figure	Name Figure	Figure
An **actor** is anything outside the system that interacts with the system to complete a task.	Actor	
Each **use case** on the diagram represents a single task that the system needs to carry out.	Use Cases	
A system components	object	
It is usual to display use cases as being inside the system and actors as being outside the system.	boundary	

Figure (5.8) explain form UML.

Explain Figure	Name Figure	Figure
The **association** is the link that is drawn between actor and a use case. It indicates which actors interact with the system to complete the various tasks.	Associate	
Use the **includes** link to show that one use case includes the task described by another use case.	Include	
Use the Extends link to show that one use case extends the functionality of another use case at specific Extension Points.	Extend	
A self-message can represent a recursive call of an operation or one method calling another method belong to the same object.	Self-massage	
The sender sends .the message	Message	
Results of procedure calls.	Return-massage	

Figure (5.9) UML relationships.