2.1 Step 1: Requirements of the system

The requirements of the system are the description of features and functionalities of the target system. Requirements convey the expectations of users from the software product. The requirements can be obvious or hidden, known or unknown, expected or unexpected from client's point of view.

The process to gather the software requirements from client, analyze and document them is known as requirement engineering. The goal of requirement engineering is to develop and maintain sophisticated and descriptive 'System Requirements Specification' document.

The requirements of our system are given bellow-

I. **Processor:** A processor is the logic circuitry that responds to and processes the basic instructions that drive a computer. Data is inputted by a computer user, the computer processes the data in the requested way and then outputs the processed data to the computer user. The core of this process, which is generally considered to be the "brain" of a computer, is the processor itself. A computer processor is also known as a CPU (Central Processing Unit). For using this project, we have need *minimum Pentium IV or higher* level processor.

II. **RAM:** RAM is an acronym for random access memory, a type of computer memory that can be accessed randomly; that is, and any byte of memory can be accessed without touching the preceding bytes. RAM is the most common type of memory found in computers and other devices, such as mobile phone. For using this project, we have need *minimum 128Mb or higher* RAM of our device.

III. **Hard disk:** A hard disk drive (HDD), hard disk or hard drive is a data storage device used for storing and retrieving digital information using one or more rigid rapidly. For using this project, we have need *minimum 400Mb or higher* Hard disk of our device.

IV. **Internet or LAN connection:** For using this project, we must need internet or LAN connection.

V. **Domain and Hosting:** The domain name is the address name or URL of our website. To put up and operate a website, we will need a domain name, and a proper-

configured web server (hosting). For example .com, .net, .org are the most popular domain name.

A web hosting normally refers to the web server (big computer) that stores lots of data files). A web hosting providers normally rent out web servers and network connection to the end-users or the resellers. The hosting providers will be the parties handling most server maintenance work such as backup, root configuration, maintenance, disaster recoveries, etc.

We have a domain name and hosting company-

- **Domain name:** www.fighters71.com
- **Domain & Hosting Company:** www.hostmight.com

VI. Documents: The Collecting documents are the principle requirement of our system. The documents consists text, papers photocopy, photo and video.

- **Text:** We have collected every fighter's text documents about their fighting activities.
- **Papers Photocopy:** We have collected all fighters document photocopy about related for security purpose.
- **Photo:** We have captured their photos.
- **Video:** We have taken a video when they said about their fighting on Liberation war.

VII. Camera and Stand: We have used a Camera with stand for video when they told about their fighting on Liberation war.

VIII. Adobe Premiere Pro CC: Adobe Premiere Pro CC is a timeline-based video editing software application. It is part of the Adobe Creative Cloud, which includes video editing, graphic design, and web development programs. We use this software for editing video files.

2.2 Step 2: Technologies to be used

The system is implemented many technologies or tools. We preferred some modern technology to implement the system. To creating a dynamic, scalable, responsive and all platforms with all browser supported system and time speed consider, we use some technologies. That's are given bellow-

2.2.1 Technologies

Server: Apache/2.4.23 (Win32) OpenSSL/1.0.2h PHP/5.5.38

Database: MySQL

Servers Side Language: PHP (Version: 5.5.38)

Client Side Language: JavaScript

JavaScript Library: JQuery, AJAX

Markup Language: HTML

Style Sheet Language: CSS, Bootstrap (Version: 3.3.6)

Operating System: Windows XP or Higher

Browser Requirements: Mozilla Firefox, Google Chrome, Opera, Safari, Internet Explorer, etc.

- **PHP**

PHP is an open source server-side scripting dialect intended for Web improvement to deliver dynamic Web pages. It is one of the initially created server-side scripting dialects to be installed into a HTML source report as opposed to calling an outside record to process information. The code is translated by a Web server with a PHP processor module which produces the subsequent Web page. It has likewise advanced to incorporate a summon line interface capacity and can be utilized as a part of standalone graphical. PHP can be sent on most Web servers furthermore as a standalone shell on practically every working framework and stage, for nothing out of pocket. PHP was a contender to Microsoft's Active Server Pages (ASP) server-side script motor and comparable dialects, however bit by bit got better acknowledgment is currently introduced on more than 20 million Web destinations and 1

million Web servers. Prominent programming that utilizations PHP incorporates Drupal, Joomla, MediaWiki, php2BB, what's more, Word Press.

PHP was initially made by Rasmus Lerdorf in 1995. The principle execution of PHP is presently created by The PHP Group and serves as the formal reference to the PHP dialect. PHP is free programming discharged under the PHP License, which is contrary with the GNU General Public License (GPL) because of limitations on the utilization of the term PHP. While PHP initially remained for *Personal Home Page*, it is currently said to remain for PHP: *Hypertext Preprocessor*, a recursive acronym.

For opening a PHP file, must need a server. Some offline server help to opening PHP file likes XAMPP, WAMP, LAMP, etc.

- **HTML**

Hyper Text Markup Language (HTML) is the basic markup lingo for making website pages and other information that can be appeared in a web program.

HTML is formed as HTML segments including names encased in point areas (like <html>), inside the site page content. HTML marks for the most part come in sets like <h1> and </h1>, though a couple names, known as empty segments, are unpaired, for example <img>. The important tag in a couple is the start tag, the second tag is the end mark (they are furthermore called opening names and closing names). Amidst these names web fashioners can incorporate substance, names, comments and diverse sorts of substance based substance.

The explanation behind a web program is to scrutinize HTML chronicles and make them into unmistakable or equipped for being heard website pages. The program does not demonstrate the HTML marks, yet rather uses the names to decipher the substance of the page.

HTML parts shape the building squares of all destinations. HTML licenses pictures and inquiries be embedded and can be used to make instinctive structures. It gives an approach to make sorted out reports by implying essential semantics for substance, for instance, headings, entries, records, associations, refers to and diverse things. It can embed scripts written in lingos, for instance, JavaScript which impact the lead of HTML site pages.

Web projects can in like manner suggest Cascading Style Sheets (CSS) to portray the appearance and configuration of substance and other material. The W3C, maintainer of both

the HTML and the CSS benchmarks, stimulates the use of CSS over unequivocal presentational HTML markup.

- **CSS**

Cascading Style Sheets (CSS) is a template dialect utilized for portraying the presentation semantics (the look and arranging) of an archive written in a markup dialect. It's most normal application is to style pages written in HTML and XHTML, yet the dialect can likewise be connected to any sort of XML record, including plain XML, SVG and XUL.

CSS is planned fundamentally to empower the partition of report substance (written in HTML or a comparable markup dialect) from record presentation, including components, for example, the format, hues, and textual styles. This detachment can enhance content availability, give more adaptability and control in the determination of presentation attributes, empower numerous pages to share arranging, and decrease unpredictability and redundancy in the auxiliary substance, (for example, by taking into account table less web outline).

CSS can likewise permit the same markup page to be introduced in various styles for various rendering strategies, for example, on-screen, in print, by voice (when perused out by a discourse based program or screen per user) and on Braille-based, material gadgets. It can likewise be utilized to permit the website page to show distinctively contingent upon the screen size or gadget on which it is being seen. While the writer of a record normally connects that archive to a CSS template, per users can utilize an alternate template, maybe one all alone PC, to abrogate the one the writer has indicated.

- **JAVASCRIPT**

JavaScript is one of the world's most well-known programming dialects. For all intents and purposes each PC on the planet has no less than one JavaScript mediator introduced on it and in dynamic utilize. JavaScript's fame is expected totally to its part as the scripting dialect of the WWW.

JavaScript (JS) is a deciphered PC programming dialect. It was initially actualized as a major aspect of web programs so that customer side scripts may connect with the client, control the program, convey no concurrently and adjust the archive content that is shown.

JavaScript is model based scripting dialect that is alterable, feebly wrote and has top of the line capacities. It utilizes punctuation affected by the dialect C. JavaScript duplicates

numerous names and naming traditions from Java, yet the two dialects are generally irrelevant what's more, have altogether different semantics. The key outline standards inside JavaScript are taken from the self and Scheme programming dialects. It is a multi-worldview dialect, supporting item situated, basic, and practical programming styles.

JavaScript's utilization in applications outside pages — for instance in PDF archives, site-specific browsers, and desktop widgets—is also significant. Newer and faster JavaScript VMs and structures based upon them (outstandingly Node.js) have additionally expanded the fame of JavaScript for server-side web applications.

JavaScript was formalized in the ECMAScript dialect standard and is principally utilized as a part of the type of customer side JavaScript (as a feature of a web program). This empowers automatic access to computational questions inside a host situation.

- **JQUERY**

JQuery is a quick, little, and highlight rich JavaScript library. It makes things like HTML record traversal and control, occasion taking care of, movement, and Ajax much less difficult with a simple to-utilize API that works over a large number of programs. With a mix of flexibility and extensibility, jQuery has changed the way that a large number of individuals compose JavaScript.

- **AJAX**

Ajax (is an acronym for Asynchronous JavaScript and XML) is a social affair of interrelated web headway strategies used on the client side to make unique web applications. With Ajax, web applications can send data to, and recoup data from, a server asynchronously (outside of anyone's ability to see) without interfering with the show and direct of the present page. Data can be recuperated using the XML Http Request address. Despite the name, the use of XML is not required (JSON is routinely used rather), and the requesting ought not to be unique.

Ajax is not a lone development, but instead a social affair of head ways. HTML and CSS can be used as a piece of mix to increment and style information. The DOM is gotten to with JavaScript to capably appear, and to allow the customer to speak with the information displayed. JavaScript and the XML Http Request address give a procedure to exchanging data

asynchronously among program and server to keep up a key separation from full page reloads.

- **MYSQL**

MySQL is the database build that empowers PHP and Apache to cooperate to get to and show information in a meaningful configuration to a program. It is a Structured Query Language server intended for substantial loads and preparing of complex inquiries. As a social database framework, MySQL permits a wide range of tables to be combined for most extreme effectiveness and speed.

MySQL ("My Sequel") is the world's most utilized open source social database administration framework (RDBMS) starting 2008 that keep running as a server giving multi-client access to various databases. It is named after fellow benefactor Michael Widenius' little girl, "MY". The SQL expression remains for Structured Query Language.

The MySQL improvement extends has made its source code accessible under the terms of the GNU General Public License, and under an assortment of exclusive understandings. MySQL was claimed and supported by a solitary revenue driven firm, the Swedish organization MySQL AB, now possessed by Oracle Corporation.

MySQL is a prevalent decision of database for use in web applications, and is a focal part of the broadly utilized LAMP open source web application programming stack (and other "AMP" stacks). Light is an acronym for "Linux, Apache, MySQL, Perl/PHP/Python." Free-programming open source extends that require a full-highlighted database administration framework regularly utilize MySQL.

- **BOOTSTRAP**

Bootstrap is a free and open-source front-end web system for planning sites and web applications. It contains HTML-and CSS-based plan formats for typography, frames, catches, route and other interface parts, and in addition discretionary JavaScript expansions. Not at all like numerous web systems, has it worried about front-end advancement as it were.

Bootstrap is the second most-featured venture on GitHub, with more than 100,000 stars and 45,000 forks.

Bootstrap, initially named Twitter Blueprint, was produced by Mark Otto and Jacob Thornton at Twitter as a structure to support consistency crosswise over inner apparatuses. Before Bootstrap, different libraries were utilized for interface advancement, which prompted irregularities and a high support load. According to Twitter developer Mark Otto:

> "A super small group of developers and I got together to design and build a new internal tool and saw an opportunity to do something more. Through that process, we saw ourselves build something much more substantial than another internal tool. Months later, we ended up with an early version of Bootstrap as a way to document and share common design patterns and assets within the company."

Taking after a few months of progression by a bit of get-together, various fashioners at Twitter began to add to the wander as a bit of Hack Week, a hackathon-style week for the Twitter change gather. It was renamed from Twitter Blueprint to Bootstrap, and released as an open source reach out on August 19, 2011. It has kept on being kept up by Mark Otto, Jacob Thornton, and a bit of social affair of focus architects, and also a sweeping gathering of benefactors.

2.3 Step 3: System Modeling

System modeling helps the analyst to understand the functionality of the system and models are used to communicate with customers. It is the process of documenting a complex software system design as an easily understood diagram, using text and symbols to represent the way data needs to flow. The diagram can be used as a blueprint for the construction of new software or for re-engineering a legacy application.

2.3.1 Prototyping Model

The Prototyping Model is a systems development method in which a prototype (an early approximation of a final system or product) is built, tested, and then reworked as necessary until an acceptable prototype is finally achieved from which the complete system or product can now be developed. This model works best in scenarios where not all of the project requirements are known in detail ahead of time. It is an iterative, trial-and-error process that takes place between the developers and the users.

There are several steps in the Prototyping Model:

1. The new system requirements are defined in as much detail as possible. This usually involves interviewing a number of users representing all the departments or aspects of the existing system.
2. A preliminary design is created for the new system.
3. A first prototype of the new system is constructed from the preliminary design. This is usually a scaled-down system, and represents an approximation of the characteristics of the final product.
4. The users thoroughly evaluate the first prototype, noting its strengths and weaknesses, what needs to be added, and what should to be removed. The developer collects and analyzes the remarks from the users.
5. The first prototype is modified, based on the comments supplied by the users, and a second prototype of the new system is constructed.
6. The second prototype is evaluated in the same manner as was the first prototype.
7. The preceding steps are iterated as many times as necessary, until the users are satisfied that the prototype represents the final product desired.
8. The final system is constructed, based on the final prototype.
9. The final system is thoroughly evaluated and tested. Routine maintenance is carried out on a continuing basis to prevent large-scale failures and to minimize downtime.

2.3.2 Model Consideration

To implement our system, we consider the Prototyping Model. This model works best in scenarios where not all of the project requirements are known in detail ahead of time. It is an iterative, trial-and-error process that takes place between the developers and the users.

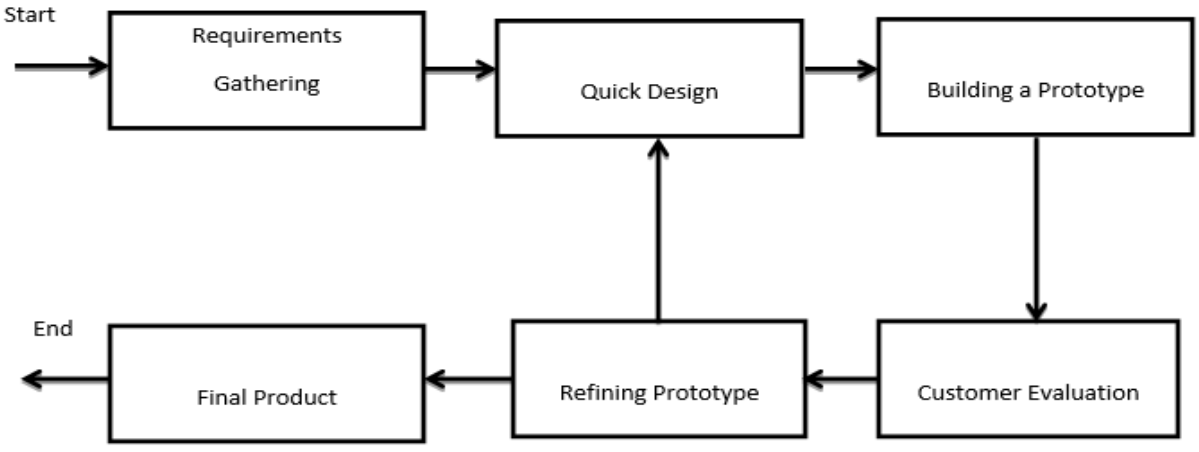

Figure 2.3 (a) Prototyping Model

We choose this model because of some reasons and they are as follow.

1. Users are actively involved in the development. Since in this methodology a working model of the system is provided, the users get a better understanding of the system being developed.
2. Errors can be detected much earlier.
3. Quicker user feedback is available leading to better solutions.
4. Missing functionality can be identified easily
5. Confusing or difficult functions can be identified
6. Requirements validation, Quick implementation of, incomplete, but functional application.

When to use Prototype model:

1. Prototype model should be used when the desired system needs to have a lot of interaction with the end users.
2. Typically, online systems, web interfaces have a very high amount of interaction with end users, are best suited for Prototype model. It might take a while for a system to be built that allows ease of use and needs minimal training for the end user.
3. Prototyping ensures that the end users constantly work with the system and provide a feedback which is incorporated in the prototype to result in a useable system. They are excellent for designing good human computer interface systems.

Advantages of Prototyping Model:

1. When prototype is shown to the user, he gets a proper clarity and 'feel' of the functionality of the software and he can suggest changes and modifications.
2. This type of approach of developing the software is used for non-IT-literate people. They usually are not good at specifying their requirements, nor can tell properly about what they expect from the software.
3. When client is not confident about the developer's capabilities, he asks for a small prototype to be built. Based on this model, he judges capabilities of developer.

2.4 Step 4: Testing

Testing is the process of running a system with the intention of finding errors. Testing enhances the integrity of a system by detecting deviations in design and errors in the system. Testing aims at detecting error-prone areas. This helps in the prevention of errors in a system. Testing also adds value to the product by conforming to the user requirements.

The main purpose of testing is to detect errors and error-prone areas in a system. Testing must be thorough and well-planned. A partially tested system is as bad as an untested system. And the price of an untested and under-tested system is high.

The implementation is the final and important phase. It involves user-training, system testing in order to ensure successful running of the proposed system. The user tests the system and changes are made according to their needs. The testing involves the testing of the developed system using various kinds of data. While testing, errors are noted and correctness is the mode.

2.4.1 Objectives of Testing

The objectives of testing are-

- Testing is a process of executing a program with the intent of finding errors.
- A successful test case is one that uncovers an as-yet-undiscovered error.

System testing is a stage of implementation, which is aimed at ensuring that the system works accurately and efficiently as per the user need, before the live operation commences. As stated before, testing is vital to the success of a system. System testing makes a logical assumption that if all parts of the as system are correct, the goal will be successfully achieved. A series of tests are performed before the system is ready for the user acceptance test.

2.4.2 Testing Methods

System testing is the stage of implementation. This is to check whether the system works accurately and efficiently before live operation commences. Testing is vital to the success of the system. The candidate system is subject to a variety of tests: on line response, volume, stress, recovery, security and usability tests. A series of tests are performed for the proposed system is ready for user acceptance testing.

2.4.3 Testing Steps

I. Unit Testing

Unit testing focuses efforts on the smallest unit of software design. This is known as module testing. The modules are tested separately. The test is carried out during programming stage itself. In this step, each module is found to be working satisfactory as regards to the expected output from the module.

II. Integration Testing

Data can be lost across an interface. One module can have an adverse effect on another, sub functions, when combined, may not be linked in desired manner in major functions. Integration testing is a systematic approach for constructing the program structure, while at the same time conducting test to uncover errors associated within the interface. The objective is to take unit tested modules and builds program structure. All the modules are combined and tested as a whole.

III. Validation

At the culmination of the integration testing, Software is completely assembled as a package. Interfacing errors have been uncovered and corrected and a final series of software test begin in validation testing. After validation test has been conducted, one of the three possible conditions exists.

1. The function or performance characteristics confirm to specification and are accepted.
2. A deviation from specification is uncovered and a deficiency lists is created.
3. Proposed system under consideration has been tested by using validation test and found to be working satisfactory.

IV. Output Testing

After performing the validation testing, the next step is output testing of the proposed system, since no system could be useful if it does not produce the required output in a specific format. The output format on the screen is found to be correct. The format was designed in the system design time according to the user needs. For the hard copy also; the output comes as per the specified requirements by the user. Hence output testing did not result in any correction for the system.