**Online Analysis Website**

A Project Report Submitted in Partial Fullfillment of the requirements

For the award of the degree of

**Bachelor of Degree**

**In**

**Computer Science And Engineering**

**by**

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**2019**



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**Declaration**

I hereby declare that the work which is being presented in the B.Tech Project “**Online Analysis Website”** in partial fulfillment of the requirements for the award of the ***Bachelor of Technology*** in Computer Science and Engineering and submitted to the Department of Computer Engineering and Applications of GLA University, Mathura, is an authentic record of my own work carried under the supervision of **Mr. Pankaj Kapoor, Asstt.Professor,**

The Content of this project report, in full or in parts, have not beensubmitted to any other Institute or University for the award of any degree.

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We also do not like to miss the opportunity to acknowledge the contribution of all faculty members of the department for their kind guidance and cooperation during the development of our project. Last but not least, we acknoeledge our friends for their contribution in the completion of the project.

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ABSTRACT

This project is aimed at developing a Web application that depicts network Analysis. The network analysis is a method used to analyze, control and monitoring of business processes and work flows. This web application involves all the features to reduce congestion in the network.Using this software, companies can improve the efficiency of their network services.

This application is entitled to solve a specific network problem.The congestion control mechanism has been responsible for maintaining stability as the Internet scaled up by many orders of magnitude in size, speed, traffic volume, coverage, and complexity over the last three decades. In this book, we develop a coherent theory of congestion control from the ground up to help understand and design these algorithms. We model network traffic as fluids that flow from sources to destinations and model congestion control algorithms as feedback dynamical systems. We show that the model is well defined. We characterize its equilibrium points and prove their stability As the Internet becomes increasingly heterogeneous, the issue of congestion control becomes ever more important. In order to maintain good network performance, mechanisms must be provided to prevent the network from being congested for any significant period of time.

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**1.Introduction**

This is a Online website of network congestion will be analyse the different factor in the network which is responsible for the congestion. After the Analysis of Result we Predict the cost of bandwidth. This documentation is provided for the requirement and design specification so that developer can get the clear idea of the system and also the design specification of the system. It contain prototype UI which is useful for the customer to know about front-end view.

* 1. **Motivation and Overview**

In future, If People have any type of problem related to network traffic congestion, Then they can analyze and reduce their data by putting their data on this website.The tremendous growth of internet demands effective congestion control mechanism to be converted into successful. The most of the internet traffic is based on TCP which guarantees End-to-end transmission. TCP compact with congestion with AIMD and packet conservation principal at plinth, slow start in highly congested scenario, fast Retransmission and fast recovery for multiple packets lost within same window. This is discussed about the modification to multiple packet failure in the absence of SACK option. We observe that enhances the performance with change in congestion window to delve with all lost packet. The results show that proposed methodology enhances throughput as performance and packet loss.

**1.2 Area of Computer Application**

It is a binding fact that are computers are very productive, efficient and make our personal and professional lives more rewarding. These 'magical' machines can do just about anything imaginable, moreover they really excel in certain areas. Below is the list of some of the principal applications of the computer systems:

**Scientific Research:** This is very important for mankind and with the development of computers; scientific research has propelled towards the better a great deal. Because of high-speed characteristics of computer systems, systems, researchers can simulate environments, emulate physical characteristics and allow scientists to proof of their theories in a cost-effective manner. Also many test lab animals are spared since computers have taken over their roles in extensive research.

1. **Software Requirement Specification**

**2.1 Purpose**

The objective of Analysis website is to allow getting information to solve problems in the corporation; going out and seeking opinions on optimals, actual, feelings, causes, and solutions and the user to put their own network dataset. This website provides user to check where the anomalies in the dataset on the bar-graph and also they can check their recommended network.

**2.2 Scope**

Without the Analysis, managing and maintaining network related activities become a tedious job for Analyser. This website can maintain the data of user network and also notify user for anomalies.

Home Module: In this module user can check the network anomaly so that it can be set by browsing of the dataset and also detect in which network it has.

The primary reason for conducting cost analysis is generally to determine the true (full) costs of each of the programs under analysis (services and/or products). You can then utilize this knowledge to:

* Identify and prioritize cost-saving opportunities
* Fundraise from donors to cover the true costs of delivering the program
* Price the service or product (for paying beneficiaries) at a level that covers the true costs of providing it
* Report the true costs of a program when claiming government reimbursements

In this section we saw how packet loss will generally reduce the speed or throughput of a given connection. Sometimes this can result in a loss or reduction in quality to latency sensitive protocols or applications such as streaming video or voice over IP, where there is less of a requirement for accuracy. Packet loss will still have some minor knock on affects since it may increase the CPU load to process the additional network overhead

**2.3 Overview of SRS**

This SRS aims at providing all the internal and external details of Online Analysis website, the next section will provide all the overall description of the Module, some assumptions taken, featured taken,etc.

**2.4 Overall Description:**

**2.4.1 Product Functions **

* Identify the different factors of Network Congestion to increase the network performance
* Decrease high bandwidth use
* Create customizable network traffic report
* Detect and prevent the network anomaly

**2.5 User Characteristics**

In this Website user is basically a Analyzer . The user should know how to Analyse the data sets on this website.

**2.6 Specific Requirements:**

Technologies Used :

* Bootstrap 
* PHP(Back-End) 
* JavaScript 
* HTML 
* CSS
* MySQL

**Specifications**

i) In this project firstly we will analyze the different factors in the network which is responsible for the congestion.

ii) After finding the factors we will apply different type of algorithm to predict the accuracy of the factors which actually effect the network

iii) After this we will analyze the factors to reduce the congestion in the network so that it will minimize the effect on a network

iv) Then we will work on the security aspects of the network so that we can reduce the packet loss, drop calls and network failures

1. **Project Structure**

The project will be structured into three phases: An investigation into the available frameworks; The creation of a software prototype to meet the minimum requirements specified above; A discussion of possible enhancements to the prototype, and implementation of as many features as possible.

The first phase of the project will focus on finding the most appropriate framework for implementing the model company‘s prototype solution. A selection of frameworks will be chosen from the web, and then disposable prototype systems will be created in the two frameworks deemed most suitable for the second phase of the project. Based on the experiences with these two disposable prototypes, a decision will be made for which framework will be utilised for creating the prototype solution for the next phase.

In the second phase, Data Analysis processes will be modelled, and a requirement specification created for a web-based system. The design for the Analysis will be produced, and implemented in the framework selected in phase 1. The system will then be tested by the Backhend Big Data Analysis.

Finally in the third phase, some system enhancements will be detailed and appropriate solutions to problems arising from user testing will also be described. Design issues in implementing the new features will be considered, and the prototype from phase 2 will be enhanced as much as time permits.

1. **User Interfaces**

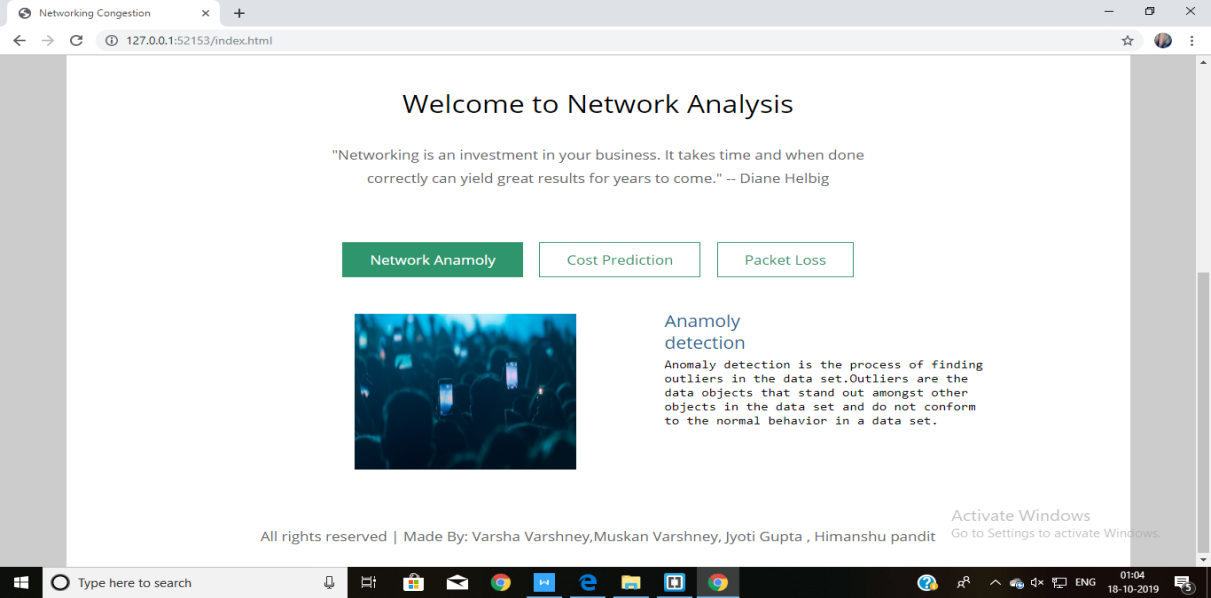


Fig. Home Page

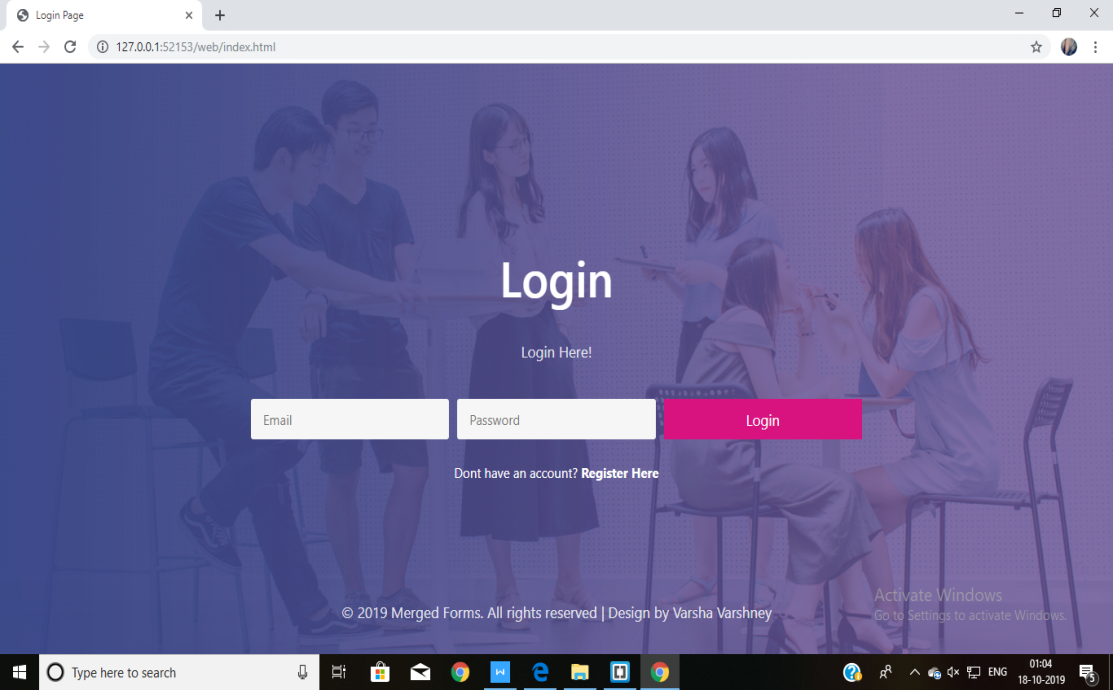


Fig.User Log-in Page

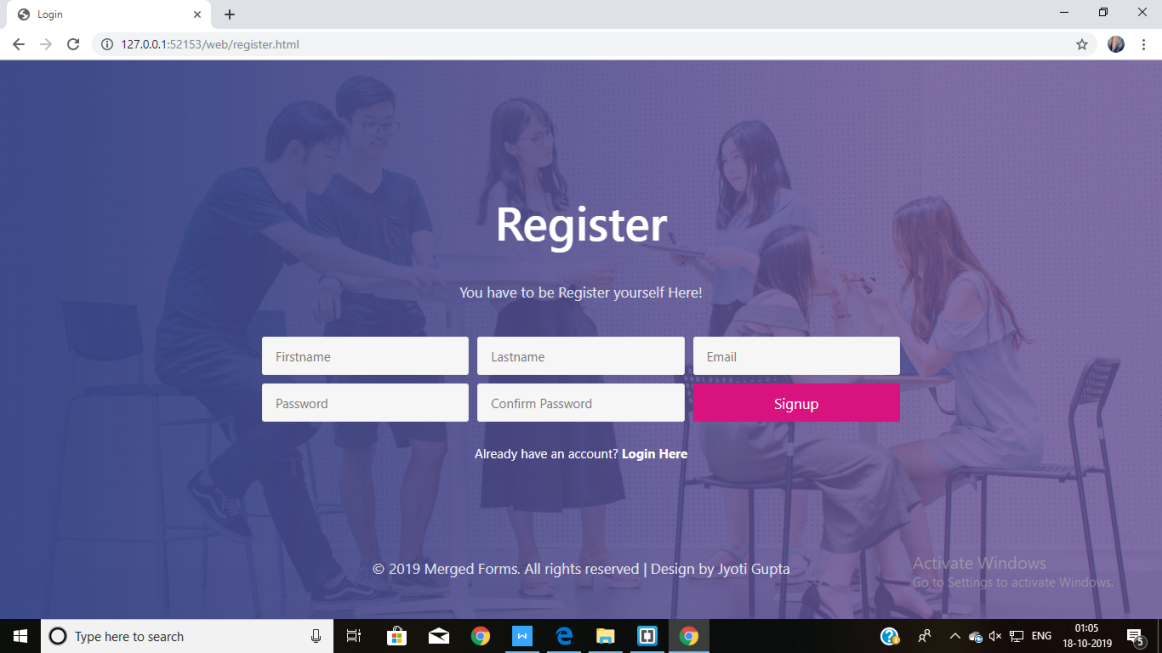


Fig.User Sign-In Page

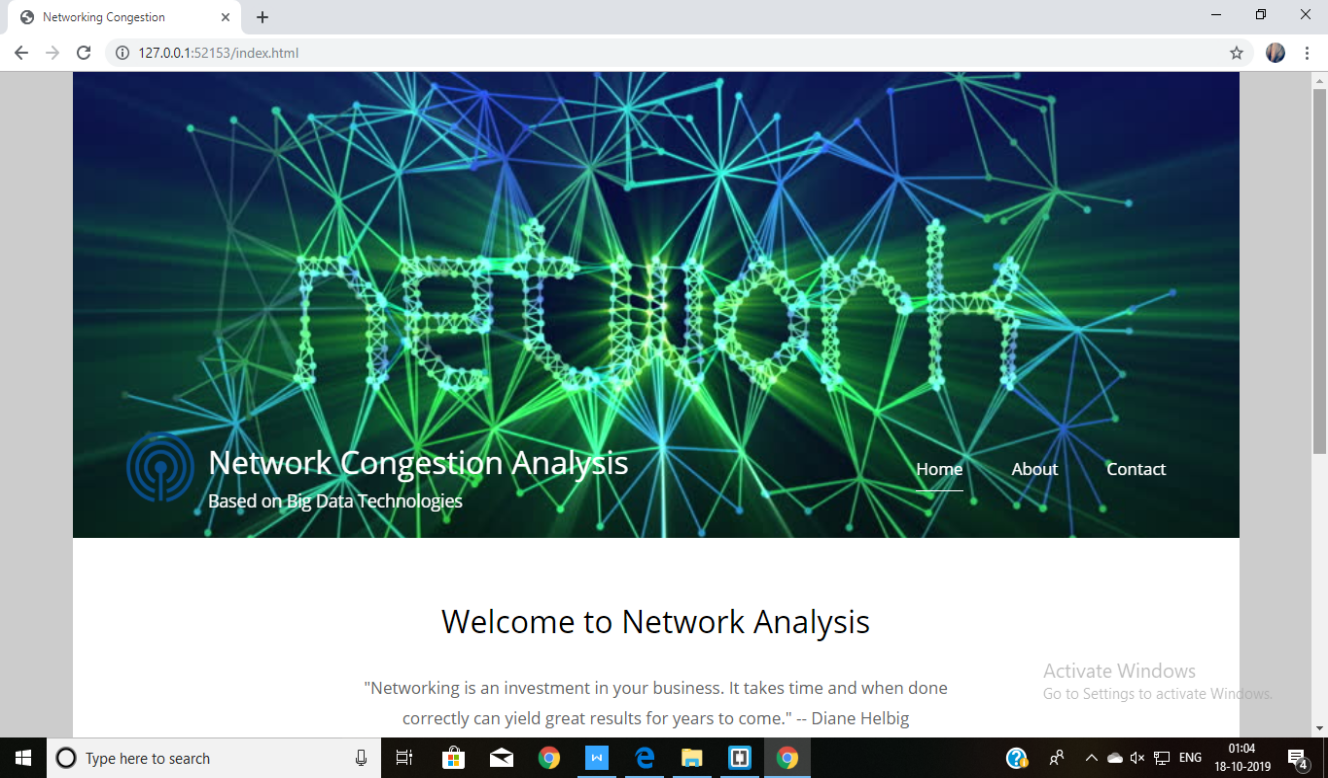
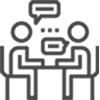


Fig. Dasboard Page

1. **Methodology**

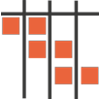


First, we meet directly with you.  
We work together, brainstorming about your project or idea.



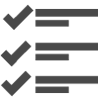
Then, we analyze your requirements and split them

into atomic tasks, building the Backlog.



Prioritizing your requirements, we set milestones,

and split them into groups named Sprints, that will take 2 weeks.



After a Sprint ends, we review it together, and then we

organize the next Sprint.

1. **Contribution Summary**

We are four group members in this group all are works the different languages and languages are HTML, CSS, JQUERY, JAVASCRIPT, BOOTSTRAP, SQL.

Muskan Varshney is working on the front end design using Html and CSS , using Html and CSS all modules including about, login, registration and network analysis. Modules description in as follows

Home module - About module the description of the website is given on about module mainly three linker are given that are network anamoly, cost prediction and product loss.

Login module- Login module username and password are required to login into the dashboard if the user is not registered he can register himself clicking on register here button.

Registration module- If the user is not registered he can register himself by providing his details valid email is mandatory for the user because of the registering email it will be send to the user email address.

Network analysis- After logging in user move to the page this page store the data in the database currently this page is under working all functionality are not implemented till now.

Himanshu Sharma is working on back-end using php . By using the php all the functionality of all the module are manage . All the modules are about module login module, Registration, network analysis. Description of the module are-

Home module - In the about module there are three link in the module . Links are network anomaly, cost prediction, packet loss. It contains a bar to browse a data file then it will store to our database through my Sql in backhand then, we click on the result button . After the result we see the anomalies

Login module- In the login module user enter their email-id and password to login the website. the functionality which is perform by the login button is manage by the php. It is verify their email-id and password it is correct or not into the database . The validation code is written into php.

Registration module - In registration module user can register their self by entering their details that are required in the register module. After the user enter their details they are enter into database and their code is written into php to save the data into database.

Network analysis- We calculate the Cost of bandwidth in this module and also search which packet loss in this analysis.

Jyoti Gupta is working on the language Javascript and My Sql .JavaScript operates on the front-end most frequently and operates entirely as an engine that is part of the user’s web browser. Of course, there are exceptions to this rule as noted in the brief mention of Node.js. Most typically, however, JavaScript works locally and only within the user’s web browser. MySQLis the relational database management engine that provides access to the data store, which, in this case, takes the form of an SQL (Structured Query Language) database. MySQL is run by PHP using one of three system plugins for PHP: mysql (now considered legacy), mysqli (MySQL Improved), or PDO (PHP Document Object).  
A query is made in PHP to the MySQL database using SQL syntax, and data is returned, typically in the form of an array or associative array. Further manipulation in PHP can format the data to be transmitted as HTML content. Finally, through communication with Apache HTTP Server, this dynamically formatted HTML data is then sent to a user’s web browser.

In this project, Varsha is working on the part of Jquery and bootstrap languages, By using Bootstrap Framework all the functionality of all the module are more effective .According to the our website, Bootstrap is the most popular HTML, CSS, and JS framework for developing responsive, first projects on the web. Additionally, Bootstrap requires jQuery to function. jQuery is an extremely popular and widely used JavaScript library, that both simplifies and adds cross browser compatibility to JavaScript.Some of the ways that frameworks can help me: Prevent repetition between projects. Utilize responsive design to allow your website to adapt to various screen . Sizes - mobile, desktop, and everything in between. Add consistency to design and code between projects and between developers. Quickly and easily prototype new designs, Ensure cross-browser compatibility

1. **Further Evalution**

In this project, PHP and MYSQL both are used for the backend. PHP is used for the web development and MYSQL is used for the database.

Hypertext Preprocessor is a general-purpose programming language which is orginally designed for web development .It is a server side scripting language that is used to develop web application. PHP scripts can only be interpreted on a server that has PHP installed.

SQL is used for the database .It is used to generate queries from client program to the database. This can allow the users to execute a wide range of fast data manipulation.So,to basically put it, SQL is the main language that allows your database servers to store & edit the data on it.

In this project, PHPis used in Login and Registration page.SQL is used to store the data for further use and further validation. User authentication is very common in web application. It is a security mechanism that is used to restrict the unauthorized to member-only areas and tools on a site.

We’ve used the Bootstrap framework to make the form layouts quickly and beautifully. It includes HTML and CSS basesd design templates for image , button ,typography etc. It also gives you support for JavaScript plugins. Bootstrap’s responsive CSS adjusts to phones, tablets, and desktops.

We’ve also used the jQuery, to improve the performance of the application.It helps to implement UI related critical functionality without writing hundreds of lines of codes. It is fast . It is extensible in nature.jQuery is a JavaScript library tha helps to simplify and standardize interactions between JavaScript code and HTML elements. jQuery is a tool that helps streamline that process. jQuery simplifies HTML document traversing, event handling, animating, and Ajax interactions for rapid web development. jQuery is easier to use compared to JavaScript and its other JavaScript libraries. You need to write fewer line of code while using jQuery, in comparison with JavaScript.

**8. Appendixes : References**

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