**COMPUTER NETWORKS LABORATORY**

MINI PROJECT

Submitted to:

Mrs. P.B. Shanthi | Department of CSE

November 10, 2016

ENQ – ENQ Not QuizUp

Online quizzing platform using concepts of socket programming

Aneesh Joshi | Kritik Mathur | Nimish Agrawal

# INTRODUCTION

What does ENQ stand for?

ENQ (pronounced as *Enque*) is a recursive acronym which stands for “**E**NQ **N**ot **Q**uizUp”.

What does ENQ do?

ENQ lets you quiz against other online users. It also keeps a count of player scores and declares the winner at the end of the quiz.

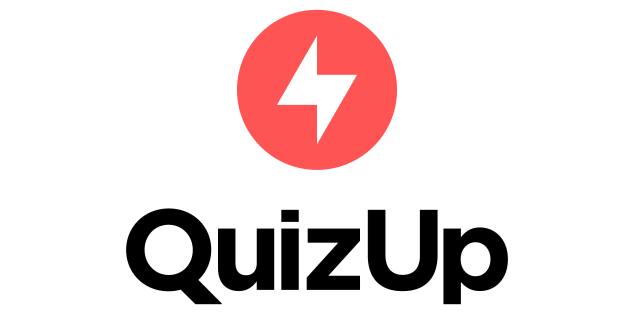
# PROBLEM DEFINITION

To provide a fast, entertaining and a robust service of a quizzing platform which can support multiple users at a time.

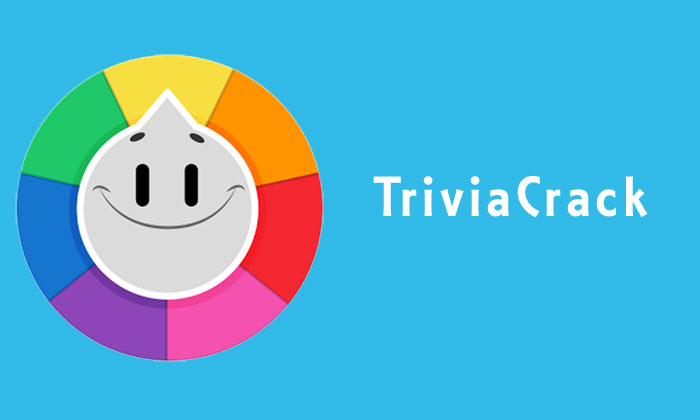
# OBJECTIVES

* To build a quizzing platform where the server can host multiple quizzes at a time.
* To calculate the scores after each question and display it to the players.
* Implementing the project by using concepts of socket programming in C++ and Linux Commands.
* Understanding Socket Programming concepts, basic concepts in Computer Networks and Linux Commands.

# OTHER EXISTING QUIZZING PLATFORMS







# BACKGROUND AND IMPLEMENTAION

The programming language used in our project is: **C++**

The concepts used in our project are:

* Sockets
* Multithreading
* Linux File Handling

**Sockets:** Sockets are communication points on the same or different computers to exchange data. Sockets allow communication between two different processes on the same or different machines. It's a way to talk to other computers using standard Unix file descriptors. A Unix Socket is used in a client-server application framework.

**Multithreading:** In simple words, multithreading is the ability of a central processing unit (CPU) or a single core in a multi-core processor to execute multiple processes or threads concurrently, appropriately supported by the operating system. This way it lets us make efficient use of multi-core processor systems.

**Linux File Handling:**  A Linux system, makes no difference between a file and a directory, since a directory is just a file containing names of other files. A file represents a sequence of bytes on the disk where a group of related data is stored. File is created for permanent storage of data. It is a ready-made structure. Thus, it is easy to implement file handing in the LINUX environment.

# METHODOLOGY

The following are the steps the user has to take to use the platform:

* **STEP 1:** The player logs in as the client.
* **STEP 2:** If he server finds another waiting player and sets them up for the game. If no other waiting player was found, then the player has to wait for a new player to join in.
* **STEP 3:** Once set up, the players try to get as many questions correct as possible. The questions are stored on the server and are selected at random.
* **STEP 4**: At the end of the quiz, the user can either stay for another or choose to leave.

# SCORING

* The scoring system is based on *absolute scoring*.
* This means, a player either scores one point, or none.
* If both the players submit the correct answer, then both of them score a point each.
* No points are deducted for failing to submit an answer or submitting a wrong answer.

# LIMITATIONS

The limitations of the project:

* Only one game can be hosted by the server at a time.
* A second player is always needed to play the game. There is no provision for single player quizzing.
* This platform can be used by seasoned players only, as it lacks a robust UI.

# CONCLUSION

With this project, we see the implementation of a quizzing platform using the fundamentals of socket programming.

Working on this project was a great learning experience for all of us and it has definitely broadened our horizon in the field of networking.

# REFERENCES

1. [www.stackoverflow.com](http://www.stackoverflow.com/)
2. www.askubuntu.com
3. www.wikipedia.org
4. Computer Networks: A Top-Down Approach, Forouzan