

# **CLASSWORK – ELYSIAN**



by

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# ABSTRACT

We are living amidst what is potentially one of the greatest threats in our lifetime to global education, a gigantic educational crisis as well as a huge economic loss. At these times most of the students and job workers are lacking certain academic work and training. Even though there are a lot of E Learning platforms available on the internet, Appstore and PlayStore. Students and Professionals find it difficult to perform their daily routine like file sharing, online classes and training, Viewing their timetables and Schedules, as far as students are concerned they need to take their tests to keep in check with their academic work. so the point is that there are several platforms for doing the works mentioned above. But most of the students will find it difficult to work on multiple platforms and keep in check with their work. Our Project CLASSWORK plays a major role in integrating these applications/ features into a single application. This platform is safe, secure and authorized to use by any Organisation or Educational Institutions. It has a smooth User Interface and Easily understandable to work. The Instructor, Supervisor or even the team leader of a project can update the changes for the students , Employees to keep them on track by having a different UI. At this pandemic time most of the students have to adapt to the changes which are required by the E- Learning applications such as Operating Systems, but **CLASSWORK** is a cross platform compatible application with a smooth user interface so no need to worry about all these sorts of problems .

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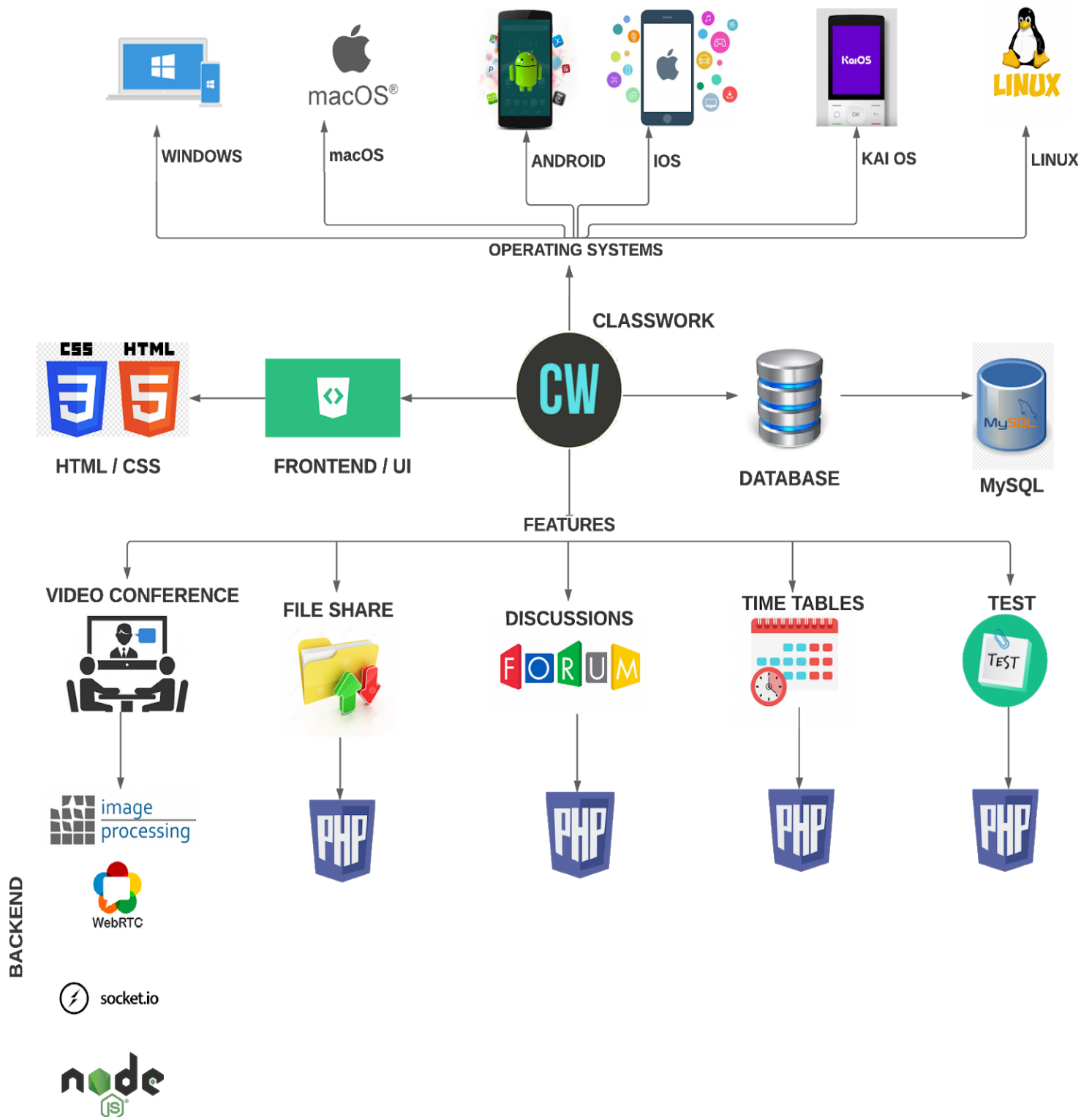
## 1.) INTRODUCTION

With the advent in technology and with the never ending increase in the strength of the students and the number of departments in the educational institutions, it is laborious to exchange the study materials between the students and the faculties. But during long distance programs or pandemic periods, students have to get over the traditional methods of learning. There are a lot of platforms for the students, but they have to use multiple platforms to continue their academic work like they have to use separate platforms for study materials, daily online classes and most of the applications will face authentication errors and slow performance. But with our project in hand “**CLASSWORK**”, it makes everything simple. It has all the features integrated in a single application. It also supports various operating systems.

## 2.) OBJECTIVES

The objective of our project “**CLASSWORK**” is to make an inexpensive, efficient and comfortable way for students to easily access notes and an easier alternative to study for exams. With this project we no longer need to depend on multiple platforms for accessing learning materials, attending virtual classes, taking tests and referring to respective time tables. To make it cross platform compatible with a smooth user interface. The metrics of the application such as uploading rate, downloading rate, time taken to search for file, time taken for authentication, time taken for sign up have been measured and checked to ensure good performance.

### 3.) SYSTEM DESIGN



## 4.) SYSTEM IMPLEMENTATION

**CLASSWORK** is build by combining different languages like HTML, CSS, Javascript and Node.js for UI Design and front end while for logical working/ backend it is done using Node.js, Socket io and webrtc in Video conferencing along with that we have implemented an image processing model ( Pre trained model with 98% accuracy ) for monitoring the students which makes it unique. For login credentials both for the faculties and students we have created a database using PHP and MySQL which is safe and secure. We have created two UIs for both teachers and students. Students can view their respective time tables and take their tests which are given by the respective Faculty. Students can view the notes, study materials and can upload their files and documents which will be approved by the respective faculty. We have created Forums for discussions regarding Questions which are raised by the students, it can be answered either by students or teachers. The backend of Time tables, File sharing and viewing, Tests and Discussions is done using PHP. **CLASSWORK** is a web app and cross platform compatible so it can be accessed both on desktop as well as on smartphones.

### i.) FRONTEND / UI :

- ❖ HTML
- ❖ CSS
- ❖ JAVASCRIPT
- ❖ NODE.JS

### ii.) BACKEND:

- ❖ PHP
- ❖ NODE.JS
- ❖ SOCKET.IO
- ❖ WEBRTC

### **iii.) DATABASE:**

- ❖ PHP
- ❖ MySQL

### **iv.) IMAGE PROCESSING :**

**( 98 % accuracy )** For Detection Diversion detection of the Student.

## **5.) APPLICATIONS**

While teaching can be based in or out of the classrooms, the use of computers and the Internet forms the major component of E-learning. E-learning can also be termed as a network enabled transfer of skills and knowledge, and the delivery of education is made to a large number of recipients at the same or different times.

- ❖ It can be used in Schools for training students, which also gives a classroom experience.
- ❖ It can be used in MNCs for Video conferencing.
- ❖ It can be used in training employees in Corporations.
- ❖ It serves as a platform to continue with our academic works in these pandemic times.
- ❖ It also helps in distance learning programs.
- ❖ Universities can use this platform for conducting virtual classes, tests and Discussions.
- ❖ Sometimes simply by replacing traditional face-to-face training with online training, companies can save a lot.
- ❖ Students can also view their respective time tables.
- ❖ All the features are integrated in one single application. It is the best E - Learning platform that any Organisation, MNCs and Educational Institutes can utilize.



- ❖ It also does use any third part or APIs.
- ❖ Students can do their Online certification program.

## 6.) CONCLUSION AND FUTURE SCOPE

In underdeveloped and developing countries, e-learning raises the level of education, literacy, and economic development. This is especially true for countries where technical education is expensive, opportunities are limited, and economic disparities exist. Thanks to satellite technology, the costs have come down so significantly that every student—whether a grade school student or medical student doing a rotation in a remote area— can take full advantage of bandwidth provided by broadband satellite systems, opening up a world of opportunities. Although the Indian market is still young, it will continue to adopt the concept of e-learning in order to meet its communication needs and seize business opportunities. According to a latest report, the Indian e-learning market size was USD 247 million, comprising 1.6 million users in 2016. It is expected witness an 8X growth to reach USD1.96 billion and the current user base will grow at 44 percent CAGR to 9.6 million users by 2021. In fact, India's e-learning market is the second largest after the US which is forecasted to grow by 15.64 percent and exceed \$48 billion by 2020.

**CLASSWORK** is built for universities and MNCs. In the upcoming future we will be implementing various features for any particular organisation, including Online certification programs. AI plays a great role in various aspects of our lives. Whether it is a virtual assistant that gives you information about the weather or any news updates, AI will be more ingrained in our lives than we might even think. AI will make learning personal, relevant with insights that are based on user behavior, data and other preferences. AI will change enterprise learning with an incredible ability to offer automated and personalized learning that can completely change the way students will learn. **CLASSWORK** powered with AI will not only deliver personalized learning environments with content, but will also improve the quality of the course. **CLASSWORK** will be designed with engaging features like personalized learning, social learning, gamification and personal coaching and support.