

EDUFLICK- A New Age Mobile Classroom

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Abstract:- Eduflick can be used by students for e-learning and for faculties for teaching. This paper explains the use of a video library and how it can help the students for e-learning and is e-learning going to be the future? The goal of this work to help the students with every economical background to tackle the problem of COVID-19 pandemic and lockdowns. This application helps faculties to upload education related materials to the platform and the student can watch the videos.

I. INTRODUCTION

Education has been an important part of a person's life from time immemorial "A man without education is like a building without foundation". When Nalanda was burnt down all its books turned to ashes. It was seen as a tragedy for the world because all the materials were lamented. Education has always been seen as the pride of a nation even in 1193. If we do not prioritize education now in the 21st century it is a huge embarrassment to the society as whole. Education has paved the way for development and prosperity for billions of people across the world. For the development of a nation, the youth need to be educated so that they can contribute in various fields. When COVID-19 hit the world, everything was turned upside down. Every sector in this world suffered greatly due to this. Education sector also suffered greatly. Kids who were supposed to go to school, study and play were now locked down in their homes. Strict lockdowns were imposed to safeguard the public's health. But these lockdowns would mean the education of students would have to be sacrificed for a year. That is when e-education came to the rescue. E-learning meant, the students can sit and learn in a flexible location without risking their health. E-learning application has seen a huge boom in recent times. Watching educational videos much better than just reading the study materials as it helps students understand better. It is also difficult to make kids learn the study materials as they get distracted easily. This is the biggest reason for the boom of YouTube channels like 'Khan Academy' or 'GateSmashers'. Visual learning is quite beneficial for students.

Visual learning is quite beneficial for the learning progress of students. An application where the features can upload their class materials and where the students can access these materials is the need of the hour, Edu flick aims to be such a platform. Here the faculties can upload their daily classes materials to a channel. These channels will be subscribed by the students and they can watch these videos anytime they want. Here accessibility and ease of use is the main goal. Fast access of contents based on different criteria like course title etc. there will be no clutter due to grouping of videos under specific course titles. There is an assignment of tests after completion of every video.

II. LITERATURE REVIEW

Boclips- Boclips EduFit content management strategy is designed to deliver customers the best, most relevant educational content for their unique use cases. It finds the best educational content from trusted video brands around the globe. It secures and manages rights to videos then ingest and organize quality-controlled content. It applies critical metadata to make library easy to search and compile content into collections and packages.[1]

OpenFING- This project is for students studying higher education courses. Here the students will have to record the videos from their actual classes. It was based on an idea where the students from a few universities used to upload their actual classes to the web for helping other students. This application is useful for students studying higher education courses. It is an open learning platform. Here the students as well as the teachers need major contributions to the development of the application. This application acts as a substitute for classes. It is used to tackle the problem of overcrowding lecture halls and for the students working full time jobs. [2]

Kahoot, is a game based learning platform. It is highly interactive. Here there are multiple choice quizzes that are to be played either through mobile app or through web browser. This app has a paid and unpaid option where in the paid version the student can select multiple options as an answer to the questions. Kahoot is very much suited for the younger kids who like to play games. It helps them to enjoy the learning process and makes it fun. Kahoot is currently used by about 50% of the U.S. Educators for teaching the students.[3]

Scratch: This is a popular e-learning web app specifically aimed at kids of age 8 to 16 years. It is the world's largest coding community for kids. It will help them study through various interactive activities such as creating a digital story or games and creating animations. It is very simple to use as it is aimed at kids. The users on the site are called Scratchers can develop the games using the block interface. [4]

ThingLink: It is an award winning e-learning platform. This app will augment images and videos which will help the students to learn more information about the searched image or video. It also gives virtual tours to the students. Nearly 4 million students and teachers use ThingLink for interactive learning. Here it can create images and videos by adding tags to it. These tags can then have a link to websites or maps. [5]

EduTube- It is a platform which organizes the best educational videos making it easy for us to find high quality educational videos. EduTube focuses specifically on videos which are very popular, highly rated, and of high educational value. EduTube has a system to organize and tag videos. This feature makes the searching process much more efficient. Videos are searchable according to the search criteria, video type and duration. EduTube also has a powerful system for finding related videos. We can even download the videos. [6]

Vision a digital video library by Wei Li, Susan Gauch, John Gauch, K Heng, "Proceedings of first ACM international Conference on digital libraries": This paper focuses on automating mechanisms to provide content-based search and retrieval over computer networks. Here the videos are automatically cut into a number of clips by a two-step algorithm based on video and audio. A closed caption decoder will distract the text from video to index the video by its contents. [7]

Developing video archive library using OMEKA: An open- source digital library management system by Dhiren Panchal, Jignesh Amin, Ahmedabad, Gujarat: Here the paper focuses on advantages of Digital library and digital learning. OMEKA is used here. OMEKA is a free open web publishing system for online digital archives. The system is created on XAMPP.

The system is first created then the videos and metadata are filled. The archive of digital libraries helps the user to learn the topic from any field. Here the localhost will be capable to run an OMEKA after run Apache and MySQL XAMPP. [8]

Video library management software toolkit for the Nevada climate change portal by Aarthi K Dhone, University of Nevada, Reno: This paper focuses on an application used to maintain the videos and search for specific videos. It

summarizes the development efforts made for the system. The application provides basic applicability to manage a library of videos along with providing features like comments, downloading the videos and adding filters. It helps the user to search videos easily and efficiently. [9]

III. PROPOSED METHODOLOGY

Since this system is aimed at students, ease of use is a major factor. In order to make sure that the students learn and understand the modules thoroughly. To use this application, internet connectivity is a must. The videos can be downloaded for offline use. The students can change the resolution of the videos and skip forward or backward. Firstly, the user can login to the system, they have to choose whether they are a student or a faculty. If it's a student, then in order to login they have to enter their registered USN and email. If they are creating a new account then they need to click on the forgot password button. The student and faculty have two separate user interfaces. The faculty can access their user interface by logging or signing up using their name, email id and employee ID. Only the faculty can upload videos. The students cannot upload videos. After authentication, users will be directed to their respective homepage. Special feature of this system is the quiz assigned by the faculties to the students. Uploaded videos are stored in a database and these videos can also be downloaded by the students for future references. Students can also provide feedback to the faculties about how their classes are going on.

IV. WORKING

The faculties need to upload the videos to their respective channel. The students will search for these videos and there is a live feature option as well. If the user is logged in, they can also log out successfully. With this application there is no hassle of manually searching for the videos required. Just typing the clip name will show the video required.

If the login is false it will display a message as invalid credentials. In the home option there are several options like Explore Trainers, My courses, profile and logout. In the Explain Trainer option learners can register for a Trainer to get all courses. Another option is My Courses where we can get access to all completed courses and to download certificates. We can also view the profile information of the learner. In case of a trainer, there are options like logout, my course, home and profile. In my course option for trainers, they can view all the courses created by them. In the home option, trainers can create new courses. In the profile option they can view profile information of the trainer.

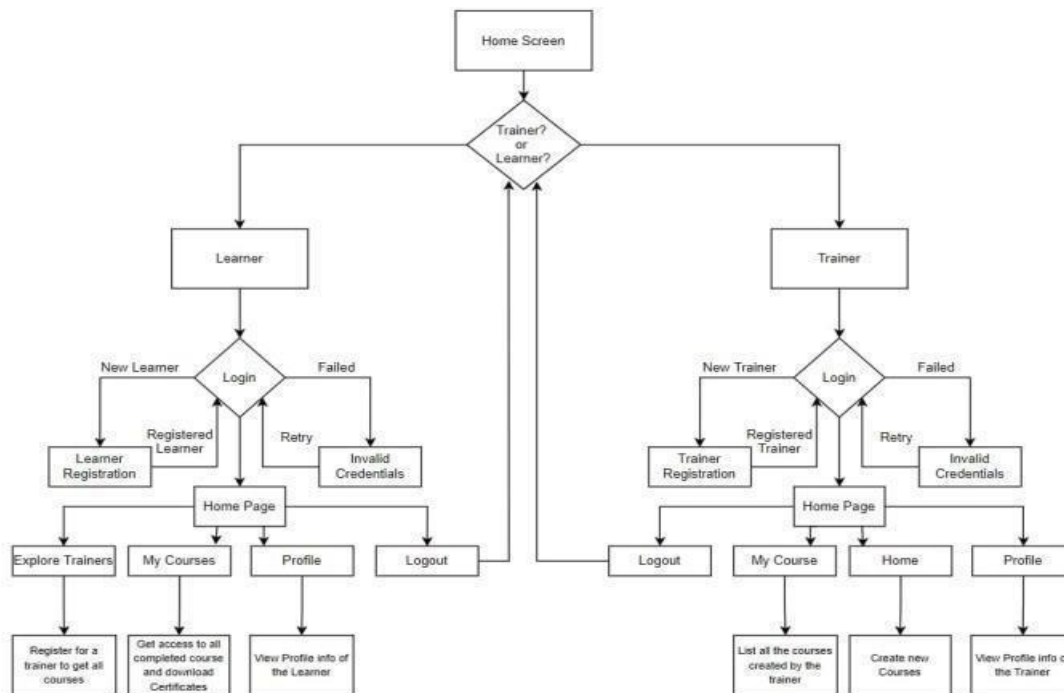


Fig 1

V. DESIGN FLOW

A use case diagram is used to write the sequence of actions related to the project. Here the actor is represented with the stick figure and the associated ones are written using solid lines. Arrowhead is used to show the direction of relationship or to indicate primary actor within the use case.

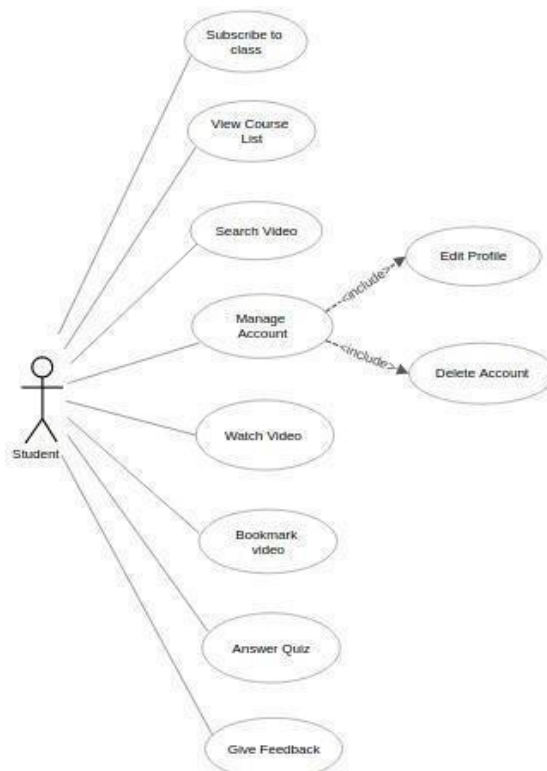


Fig 2:- Use case diagram for Student

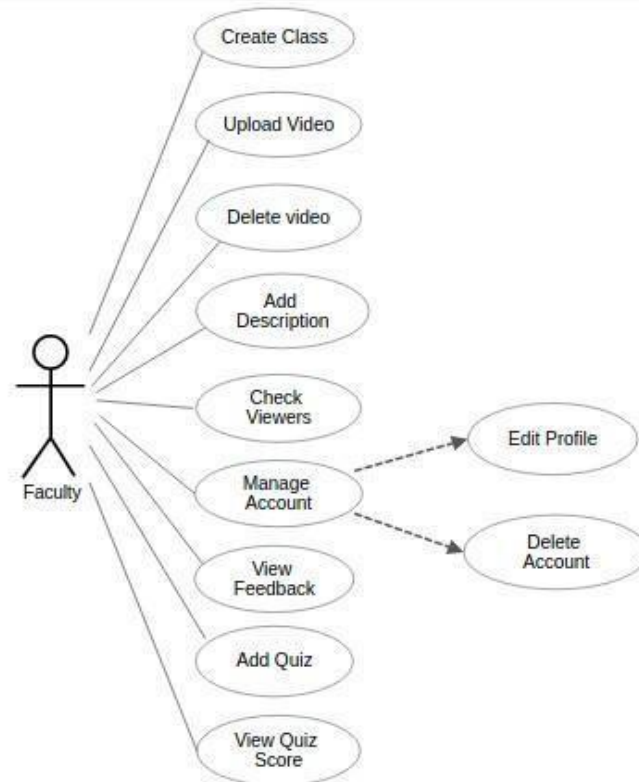


Fig 3:- Use case Diagram for Faculty

VI. REQUIREMENTS SPECIFICATION

- Search Videos: allows the students to search for the videos making it faster to find it.
- Safe and Secure: The system can be accessed only after logging in.
- Special access only for faculties to upload the video.
- Score and progress tracking: The faculties can keep track of scores of the students on a particular topic.
- View and subscribe to videos: There is a facility to view the course contents and subscribe to a particular channel.

VII. CONCLUSION AND FUTURE WORK

As the world moves more and more towards technologies, e-learning is only going to gain traction with time. Colleges could implement this application for better learning facilities for students as it is low cost, easy to use and can be quickly learnt by the users even if they are not tech savvy. E-learning can be quite beneficial to students who cannot attend classes due to any issues and also to tackle the issue related to pandemic. The main aim of the project is to design and implement Edu Flick. All the course related videos can be found in a single platform that is being proposed. It is focused on digital learning in a single application that makes this application innovative and unique.

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