

# **Major Project Synopsis**

*on*

## **E-COACH**

*In partial fulfillment of requirements for the degree*

*of*

**BACHELOR OF TECHNOLOGY**

**IN**

**COMPUTER SCIENCE & ENGINEERING**

*Submitted by:*

Abhay Soni [18100BTCSAII02826]

Piyush Nigam [18100BTCSAII02850]

Pratyaksh Petare[18100BTCSAII02854]

Ritik Dubey [18100BTCSAII02858]

*Under the guidance of*

Ms. Pallavi Kala



**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**SHRI VAISHNAV INSTITUTE OF INFORMATION TECHNOLOGY**

**SHRI VAISHNAV VIDYAPEETH VISHWAVIDYALAYA , INDORE**

**JULY-DEC 2021**

# **SHRI VAISHNAV INSTITUTE OF INFORMATION TECHNOLOGY**

## **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

### **Abstract**

E-COACH is a platform that provides educational and coaching institutes where they can provide tuitions and all other relevant services to their students on a single platform, making it easier and trouble-free for the institutes as well as students.

E-COACH would also help the teachers of the institute to keep a track of students' academic progress and organize tests on the platform.

### **1. INTRODUCTION**

With the advent of COVID-19, educational and coaching institutes have been hit badly, smaller coaching institutes and individual teachers are finding it very hard to sustain in this time of internet, as they do not have proper means to advertise themselves. They are also facing difficulties in organizing online classes and they are forced to organize classes in unsystematic manner.

With E-COACH, we aim to provide a platform for these institutes and teachers where they can provide classes to students with ease, making the work of teachers easier and providing the students with an exemplary learning experience, so that their learning is not hindered even in time of this pandemic.

### **2. PROBLEM DOMAIN**

With COVID-19 restrictions imposed in most parts of the country and thus inability of coaching institutes and individual tutors to take in-person classes, classes are being conducted in online mode. But this does not come without problems, teachers are forced to hold classes in unorganized manner. Teachers are also unable to keep track of student's progress (attentiveness) in their studies and are not able to assess their performance.

Smaller coaching institutes and individual teachers are not able to reach larger audiences due to the costs incurred in advertising on internet and lack of networking in this time of pandemic. This has halted the progress of teachers in expanding their student base.

Classes which are being conducted is also not well-organized and problems are being faced by both teachers as well as students.

### **3. SOLUTION DOMAIN**

E-Coach is a web application. Generally run on a browser there it meets some particular browser requirement(Describes in a system domain).In the Solution Domain we will discuss about . requirement, techniques, algorithms, schema, architecture, design, plan, framework of our Web Application.

### Requirement analysis-

- Our solution is to provide an online Coaching where Coaching institutes only need to take subscription on our website and they can access the features of our application. Our website gives them a platform where they can train their students and analyze them correctly.
- The website is built on web technologies such as HTML, JavaScript, and CSS.
- With the use of this website, a trainer can take online classes by scheduling them in a calendar provided by our website, can give assignments to their students in the assignment section, can schedule tests in the test section, also a doubt section is there where a trainer and student can directly interact.
- The front-end of the web app is created using HTML, CSS, JAVASCRIPT and BOOTSTRAP. Web app uses JAVA EE. MYSQL is used as database in the web app.

### Functional requirements-

- 1) Ability for students and trainers to register themselves for the website so they can avail the facilities that are provided by the website. Unique username/email and passwords shall be provided to each student and trainer for authentication. Using these credentials, a user can login to the website.
- 2) Functionality for the registered students for selecting their desired coaching institute. Also provide the student the functionality to purchase their desired course and attend the classes on our website and has access to our facilities.
- 3) Functionality for the registered trainer for as they are linked with their particular coaching institute, so they can have access to the features of their respective coaching institute.
- 4) Functionality to take premium subscription of coaching institute, so their coaching institute name comes on the top of search column.
- 5) Students Analysis Feature is provided where a trainer can analyze students on the basis of course completion and test remarks.
- 6) Doubt Section Forum where Trainer and student can directly interact, and also other students can help in this section.
- 7) Content Section is provided where coaching institutes post study material, so that students can access them directly.

### Non-functional requirements-

- 1) The website will work efficiently with following versions of browsers: Chrome 60, Firefox 55, and Edge 60. User should ideally be using latest stable version of either Safari, Chrome, Firefox, Edge.
- 2) The website should be secure. HTTPS protocol should be used to send data. Only authenticated user should be able to access our website features.
- 3) The interface of the website should be user-friendly and easy to navigate.
- 4) The website should be mobile-friendly.

## Design concept-

The main aim of design engineering is to generate a model which shows firmness, delight and commodity. Software design is an iterative process through which requirements are translated into the blueprint for building the software.

## Architecture-

The primary goal of the architecture is to identify requirements that affect the structure of the application.

- Expose the structure of the system, but hide its implementation details.
- Realize all the use-cases and scenarios.
- Try to address the requirements of various stakeholders.
- Handle both functional and quality requirements.
- Reduce the goal of ownership and improve the organization's market position.
- Improve quality and functionality offered by the system.
- Improve external confidence in either the organization or system.

## 4. SYSTEM DOMAIN

### System specification-

#### Hardware Specification-

The minimum hardware specification for this web application is:

**Processor:** Intel Core™ i3 or higher, (PIV-300GHz recommended)/Supported mobile browsers.

**RAM:** PC-2GB / Mobile - 1GB

#### Software Specification-

The minimum Software specification for this web application is:

**Operating System:** Window XP/Window vista /Window 7 ultimate or newer  
/AC 8.0 or Newer / Linux distribution i.e.; Ubuntu / Fedora /Linux Mint  
/Debian or more / Android

**Web Browser:** Google Chrome, Mozilla Firefox, Microsoft Edge, Opera.

#### Languages and Tools used-

Languages- HTML ,CSS ,JAVASCRIPT ,JAVA(JEE) ,MYSQL.

Tools- Eclipse ,VS code Editor, MySql Command Prompt, Chrome.

## **5. APPLICATION DOMAIN**

E-COACH will make the learning experience more productive, fruitful and engaging, for both the teachers as well as students. It will help teachers organize classes and take assessments of performance of students without any difficulty. E-COACH will be an asset for those institutes and coaching who are unable to make their virtual presence just because of lack of funding or guidance. E-COACH provides a wide variety of facilities to the students as well as the institute. E-COACH minimizes the handling of various application and provides various features like online classes, notes, assignment, profile building and display, advertising etc. on a single platform. E-coach enables the institutes to showcase themselves and also function smoothly in this pandemic affected world. E-coach will provide various institutes and coaching to students on a single platform. As this corona virus pandemic has moved the whole world towards virtual presence, the platform E-COACH will be a stepping stone and pioneer in this journey.

## **6. EXPECTED OUTCOME**

E-COACH will have a major impact on lives of the people who want to showcase their talent and skills as a teacher and an institution. E-COACH will provide an opportunity for those students who want to enhance their knowledge and uplift their lives. Due to the impact and features of E-COACH, now onwards no institute, coaching, student will face challenges just because of lack of funding or guidance to go virtual. E-COACH will also enhance remote learning and provide institution a much bigger stage to perform and unleash their hidden potential.

Hence, E-COACH will turn out to be a milestone in the lives of many people.

## **7. REFERENCES**

- <http://www.tutorialspoint.com/Software-Engineering/SE-2nd-Unit/02-Requirement-Engineering-Phases-Feasibility-Study.aspx>
- <https://trainingindustry.com/articles/leadership/coaching-in-the-time-of-covid-19/>
- <https://timesofindia.indiatimes.com/city/kochi/entrance-coaching-industry-struggles-to-stay-afloat/articleshow/84328300.cms>
- <https://indianexpress.com/article/india/a-long-recess-6446348/>