Generic Job Readiness System

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Abstract - Now a days the education era is highly equipped in terms of the technology for the knowledge sharing, information gathering, learning methodology and innovative digital tools. These approaches help in the learning styles as well as the teaching styles in consideration of different types of the learners such as visual, auditory, and kinaesthetic.

In early days the learning style was also digital in the way systems built based on the standalone software applications. These stand-alone software applications and web-based application was not so interactive and follows the VAK Module.

With the development of mobile technology and the accessibility of smart mobile devices and networks the learner is highly available online. In terms of social application as well as connectivity with the world. Here, we proposed a system which will focuses on the type of the learner as per knowledgeable.

In this platform learner can work on himself from the beginning of his/her undergraduate till the completion of graduation in terms of knowledge enhancement and job readiness in the swift information technology era.

It is equipped with different segments such as aptitude, technical interview skills, and programming skills. The proposed system is contributed as in the registration of college and provides a platform where the learner can equip for their interviews by giving practise questions for each subject as per the industry interview suggested by the faculty. It will also help to the educational institution to test student's skills and improve their performance course wise.

The proposed system will display a quiz menu with multiple-choice questions and technical content support in terms of doc and give tutorials.

The quiz includes functions: - 1) Hint, 2) Skip, 3) Randomize questions, 4) Timer, 5) Audio quiz. We are offering VAK (Visual-auditory- kinaesthetic learning) module implementation since it discusses the learning style model, which offers a simple and rapid reference to various or preferred learning styles. The learner can utilise these features while they complete the quiz. Through various quiz sets, it enables learners to assess their knowledge and skills, improve their learning capabilities and excel in any interview situation.

*Key Words***:** Admin, Faculty, Student, Test, MCQ, Tools, College, Test preparation, VAK Module.

1. Introduction

Generic Job Readiness System is a graphical user interface that, in most cases, is based on a superior learning system and helps students understand numerous subjects while preparing for interviews and subjective tests using smartphones and tablets. New features and original learning methodologies are being introduced. The title of this study, "A Job Readiness application," was selected after considering the setting and problem formulation of the study. The application will contain a quiz menu with questions that are presented as multiple-choice tests (MCQs) thanks to this research. The quiz score is

immediately presented upon the completion of all multiple-choice questions, saving the faculty the time and paper necessary for manually checking each student's response, which can take a lot of time. It is a person's own learning and comprehension approach, based on their preferences, weaknesses, and strengths. These results bolster to the researchers, tool developers and system tool designers to rethink about future of development or design tools.

2. Literature Review

2.1 Mr. A. Ganesan, Mr. C. V. Balaguru, Mr. D. Naveen (IJCRT): Quiz Management System

Findings/Remarks: - This study outlines how to lead teams to provide the quiz takers with greater performance and service. This system displays the results following the completion of examinations or quizzes, and faculty/teachers have complete control over the question posting and are responsible for creating the quiz schedule. Additionally, the entire system that is offered will be under administrative control.[5]

2.2 D. Suganya, R.P. Harshini (IJRESM): Web Based Quiz Application to Validate Knowledge

Findings/Remarks: - This research referees to web-based quiz application which mainly focuses on subjective exams according to curriculum of their respective college like semesters and predefined courses. This system has been successfully created a platform where student can take the test, review their test performance, and display the score at the end of the test. It allows huge number of students to take the test at a time and provide convenience to the users. By use of this technology a platform is created where students can take the test for free at anywhere and faculty can save their time and workload.[6]

2.3 Shivkumar Hegonde, Sanket Walke(IRJET): Kids Learning Zone a 3D Android Application

Findings/Remarks: - This research is mainly focuses on the learning style for kids and student. The VAK (Visual-Learning, Auditory-Learning, and Kinesthetics-Learning Style) Model is the learning style adopted in this application and it offers a simple and rapid reference to desired learning style.
It helps kids to improve in things like logic building, thinking Enhancement, Virtual-Reality Learning.[3]

2.4 Maulidia Tifani Alfani Nur Hardiana(IJRR): The Effectiveness of VAK Model In learning of Summary Writing.

Findings/Remarks: - This research primarily examines the VAK paradigm for teaching summary writing. This study used a pretest-posttest Control group design as its experimental method. As a result, Russell claims that the research suggests

offering learning phases utilizing the VAK paradigm. 1) The stage of preparation; 2) The stage of delivery and training; and 3) The stage of result performance.[10]

2.5 Beatriz Andres, Raquel Sanchis, Rahul Poler (CDIEGI): Quiz Game Application To Review The Concepts Learnt In class: An Application At the University Context.

Findings/Remarks: -This study outlines the comparison on the multiple quiz game tools: - Infuse learning, Quiz Socket, Kah hot, Verso, Socrative, Poll Everywhere etc. [11]

2.6 Prof. (Dr.) Praveen Gupta, Mr. Mukesh Kumar (IIJCS): Architecture for Mobile Quiz application using Android Application Fra.

Findings/Remarks: - This study primarily focuses on the work used to create an engaging mobile application based on the Android architecture to hold quizzes on various technical subjects. The only thing it does is give a framework or prototype for the quiz system that students can access remotely from anywhere.[8]

2.7 P.Subha, I.Lfefina, C.Niranjana Devis (IJARCCE): College Management System

Findings/Remarks: -This study outlines how college management system works with multiple perspective. Also, They Provides Basic knowledge about college structure how it is going to happens in the Management System.[12]

3. Related Work:

3.1 Online MCQ Quiz Application:

The project's goal is to automate the current manual approach and assist the examiners in conserving both their time and crucial data. In addition, the data stored in this system will be readily accessible and last for a long time. The initiative aids the assessors in They effectively manage their services and give their customers superior service. The purpose of this project is to manage the details of students, examinations, marks, courses, and papers in a good manner. The functioning of the programme will be totally managed by administrator and administrator can guaranty any one to access. The project would reduce the manual process in managing examinations and all concerns relating that.

Pros: -

1) The Users data is stored for longer period.

2) The Functionalities of the application is fully-managed by administrator.

3) Quiz provided with timer and Instant Result after completion.

4) It reduced manual checking of papers.

Limitation: -

1) It has limited features provide to users.

2) Absence of Security.

3.2 Online Quiz Application for Informatics and Information System: -Students (Task Portal Development)

For Information Systems students, the aim of this study is to develop an online quiz application that will save both lecturers and students time when grading and processing the results. Making an application can aid in the development of traditional processes using technology and in real-time. The steps taken to carry out this research are Requirements Planning, User Design, Construction, and Testing / Evaluation, followed by the creation of the final report. This study will display a multiple-choice quiz with questions on it. The correct and incorrect answers, grades, and information on whether to pass will all be displayed straight away. The study's findings will help minimise the stack of paperless documents, , and the interaction between students and lecturers is no longer conventional.

Pros: -

1)Teaching Get Interactive & interesting.

2) Quiz Menu with questions in the forms of multiple choice & immediate result will be helpful.

3) Paperless study will be possible.

4) Teaching will be easy due to electronic device.

Limitations: -

1) Can Lack Behind if system is not updated.

2) If System failure occurs or no electricity available it will not be helpful.

3) Need to be with internet connection & network area always.

4) Not affordable to everyone & every time.

3.3 JAGRAN Josh Computer General Knowledge Quiz: -

The Computer General Knowledge Quiz part is a collection of multiple-choice questions regarding topics relevant to the computer area that will help you understand the changing nature of competitive examinations. A generic computer quiz is being given. This test is helpful for preparing for any field exam for computers. In this quiz app, questions are presented along with four options, and the answer is also provided at the conclusion. Students can use the quiz after studying to gauge their degree of readiness.

Pros: -

1) Timer feature for the quiz.

2) Leader board is provided.

3) Score will be display after quiz submission.

Limitations: -

1) Limited subjects/topics given in the Web application.
2) Quiz is not work dynamically from the database.

3) Absence of security.

3.4 Web Based Quiz Application to Validate Knowledge: -

Web based quiz application system is very much important for any educational institution to prepare their students for exams by saving the time in this critical period. In this website, the list of courses with respect to the semesters is provided. The multiple-choice questions for each course are included. It is helpful for students to test their course wise knowledge on their own. This excludes the need of human efforts for managing question sets. It is designed to replace existing paperwork and manual correction which is not applicable in this pandemic time.

The motive is to computerize the existing manual system and help the examiners to save their valuable time and important data. Apart from this, data which are exist in this system, will exist for long period of time and will be easily accessible. It will reduce the manual process in managing examinations and all issues regarding that.

This familiar GUI will make the user feel more comfortable to navigate and view the data on the system. It allows user to take test and make them improved. It can be completely controlled by admin and the admin can be able to modify the questions.[6]

3.5 COLLEGE MANAGEMENT ANDROID APPLICATION: -

The system's design and implementation are aimed at serving institutes and colleges. The system will replace the current paper records by offering a thorough student information system and user interface. Automation of all college or university functions is the primary goal of the College Management Application. You may manage all aspects of college administration using this system, including admission, payment of tuition, scheduling classes, and announcement of results. You may simply examine or change statistics and information on students and employees with this college management system. Our suggested application includes modules like Login.[12]

Pros: -

1) Provide proper user management system.

2) Student and staff data can be managed Easily. Payment gateway is provided for tuition.

Limitations: - Verification is time taking

4. Taxonomy Chart

Features Papers/ Systems	Visual	Auditory	Kinesthetic	Questions	Study Material			Dashboard	Leaderboard	Result	Progress
					Videos	Documents	Notes				
1. QA-Google Form (Quiz application development-Based Google form)	x	x	✓	✓	x	x	x	✓	✓	✓	x
2. Quiz App (Quiz app using android studio Research-paper)	x	x	x	✓	x	x	x	x	x	✓	x
3. Android Quiz Application (Research-Paper)	x	x	x	✓	x	x	x	x	x	✓	x
4. Online Quiz Application for Informatics and information System Students	x	x	x	✓	x	x	x	✓	x	✓	✓
5. Quizzes (Quiz App- Based MIT APP Inventor)	x	x	✓	✓	x	x	x	x	x	✓	✓
6. Quizzy (Quiz application)	x	x	✓	✓	x	x	x	x	x	✓	✓
7. Kids learning Zone	✓	✓	✓	x	✓	✓	x	x	x	✓	x

Features Papers/ Systems	Visual	Auditory	Kinesthetic	Questions	Study Material			Dashboard	Leaderboard	Result	Progress
					Videos	Documents	Notes				
8. Online MCQ Quiz Application	x	x	x	✓	x	x	x	x	x	✓	x
9. Kahoots	✓	✓	✓	✓	x	x	x	x	✓	✓	x
10. Quizlet	✓	✓	✓	✓	✓	x	x	x	x	✓	✓
11. Socrative	x	x	x	✓	x	x	x	x	x	✓	✓
12. QuizUp	x	x	✓	✓	x	x	x	x	✓	✓	✓
13. Trivia Crack	x	x	x	✓	x	x	x	x	x	✓	✓
14. Current Affairs Quiz	x	x	x	✓	✓	x	x	✓	x	✓	x
15. Quiz Management System	x	x	x	✓	x	x	x	✓	x	✓	x
16. Proposed System	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Fig 1: Taxonomy chart

5. Existing Systems Architecture: -

The visualization of the many systems that our team's research covered is shown in this diagram.
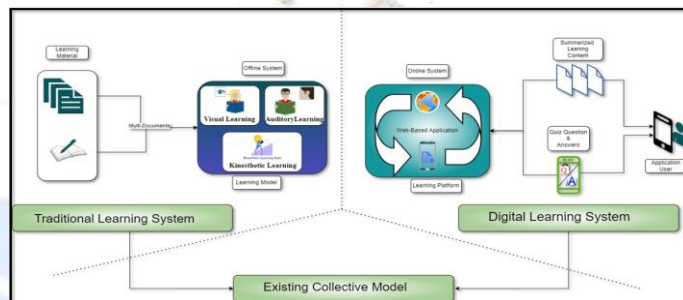

Fig 2: - Existing System Architecture

Today's digitization has expanded the space for learning platforms and techniques. For subject-specific study and interview preparation, there are many established learning methods that students can use, including hands-on practicing, videos, and audios.

Traditional Learning System: The traditional learning system, also known as the classroom-based learning system, has been the primary mode of education for centuries. It is a system where a teacher imparts knowledge and skills to students in a physical classroom setting. This method of learning is still widely followed in colleges and universities around the world. The existing system architecture of traditional learning consists of a physical classroom where a teacher delivers lectures, assigns homework, and evaluates student progress. The learning materials, such as textbooks and other reading materials, are provided to the students. The students are expected to attend classes regularly, complete assignments, and participate in classroom discussions. The teacher provides guidance and feedback to the students throughout the learning process. This system has been the cornerstone of education for many years, but with the advancement of technology, new learning systems such as online learning have emerged.

Digital Learning System: Nowadays the digital learning system is vastly growing, there were several platforms which provides multiple features like study materials, Q & N in Web-based application, but there is no such platform which provides the interview preparation aspects with daily learning.
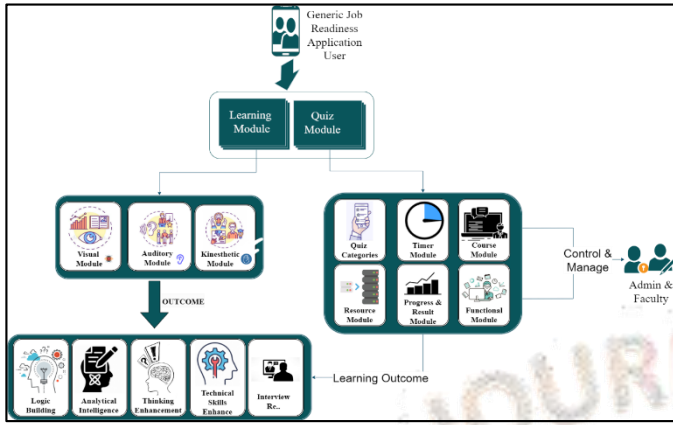
6. Proposed Systems Architecture: -

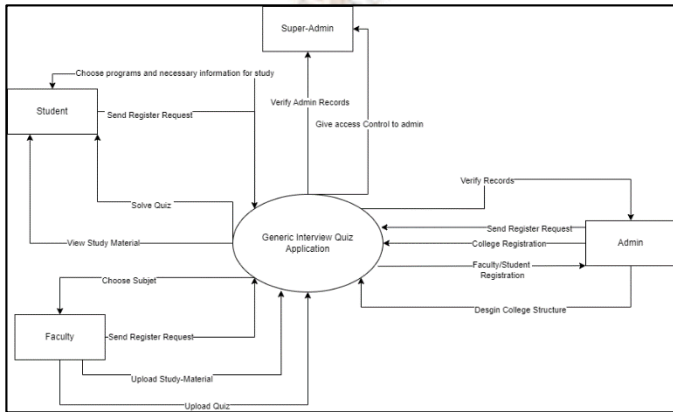Fig 3: - Proposed System Architecture

Fig 4: - Block Diagram of Proposed System

6.1 LEARNING MODULES: -

VAK Module (Visual, Auditory & Kinesthetics Module) [3]. In order to study effectively, VAK Module assumes that students' potential will be explored together with their learning preferences. [10]

Visual Learning Style: - It is a typical learning method is to observe or see things. The clearest illustration of this is when professors used to bring some visually appealing items to display in class. From the standpoint of the student, they observe and retain information that they see visually in front of their eyes. It is interesting that visual learner characteristics have shown that knowledge and skills imprinted with the helped of visually exciting materials remain in our memories for a long time. In the modern classroom, teachers adopt visual teaching techniques by using whiteboards, handouts, photos, films, presentations, and other visual aids to help students understand concepts in a more effective way.[3][10]

Auditory Learning Style: - A learner learns most successfully by listening when they are using auditory learning. Students learn using this method through listening to spoken text, watching videos, participating in conversations, and expressing their emotions aloud. Q&A sessions are excellent for keeping aural learners interested and help them quickly absorb crucial knowledge about particular topics.[3] Mostly students prefer to discuss the ideas or shear the important information in groups instead of reading the papers or books.[3]

Kinesthetics Learning Style: - Kinesthetic learning is a style of obtaining information. Instead of simply leasing the concepts or watching the presentation, most students prefer hands-on practice. The best learning results may be anticipated when students engage in some physical exercise while they are learning.[3]
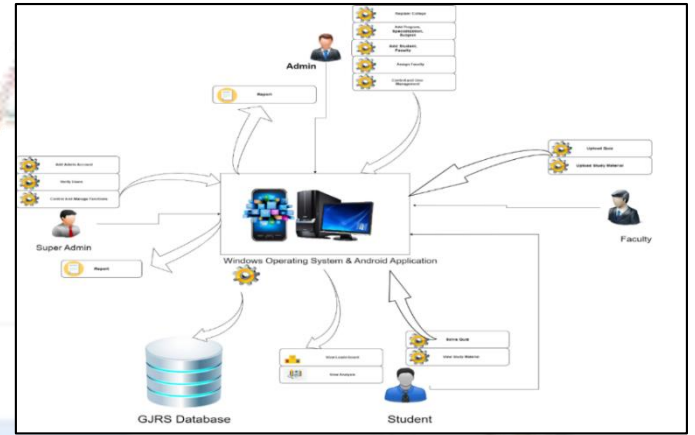
7. System Architecture:

Fig 5: System Architecture

7.1 System Modules: -

Super-Admin Module: - Super-admin is the intended user of this module. Which makes use of the program to see, manage, remove, and update the information about admin users as well as provide access to admin accounts.

Admin Module: - This module is made specifically for admin's who use this program to register their colleges with the name, icon, and other information. After a college has been registered, the admin can create the college's structure, including the placement of its programs, semesters, specializations, and subjects in accordance with expectations as well as their subjective knowledge. The admin has the authority to provide access to teachers and students who choose their college while registering their accounts.

Faculty Module: - This module is created for faculties who use this application to schedule quizzes and give study materials according to the specified subjects. The fundamental features, such as timed exams that assess students' knowledge according to interview as well as their subjective knowledge.

Student Module: - This curriculum was developed with students in mind. Initially, the student must sign up for this application and choose their college, if one has been added by the administrator. The student is given access by the administrator once the student's use of the program has been validated as belonging to the chosen college or not. This module is offered to students to complete the daily, monthly, or periodic quizzes as per their programs to assess their knowledge from both an objective and subjective interview standpoint.

8.System Outputs: -

1) Super-Admin
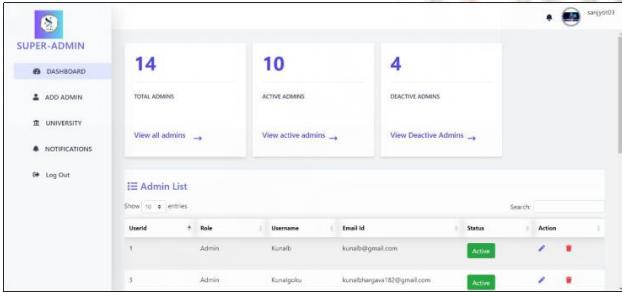

Fig 6: - Super-Admin Login Screen
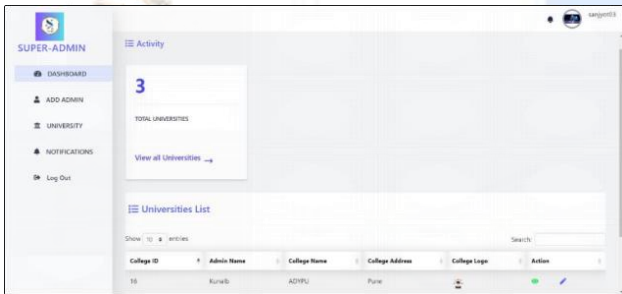

Fig 7: - Super-Admin Dashboard

Fig 8: - Super-Admin View all Universities

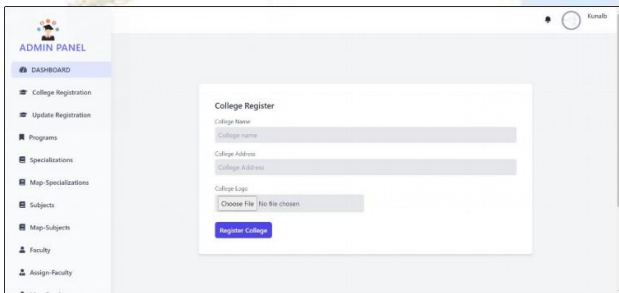### 2) Admin-Panel: -

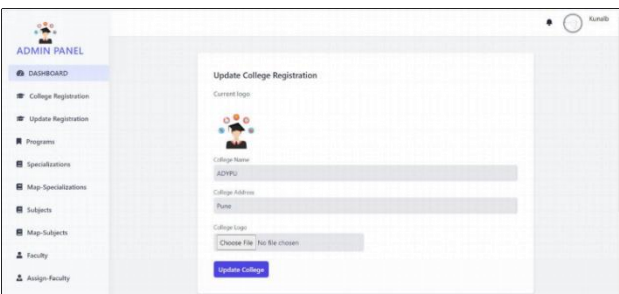Fig 9: - Admin Panel College Register Page

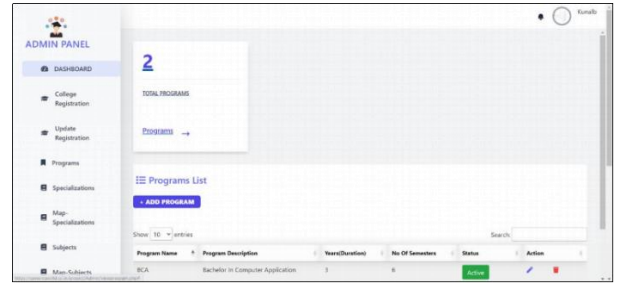Fig 10: - Admin Panel Update College Registration
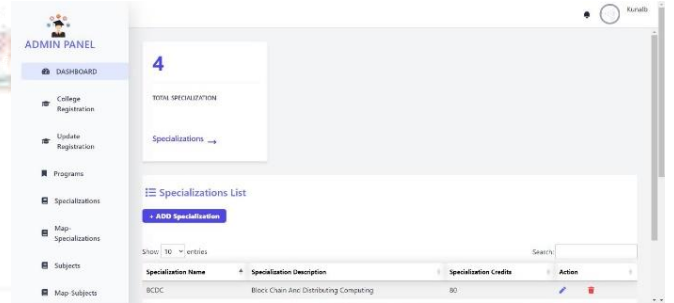

Fig 11:- Admin Panel Add Program Page
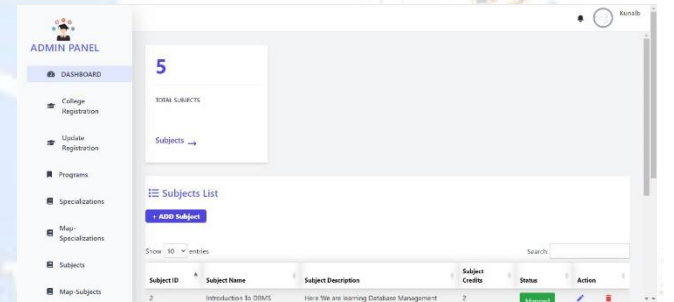

Fig 12: - Admin Panel Add Specialization Page
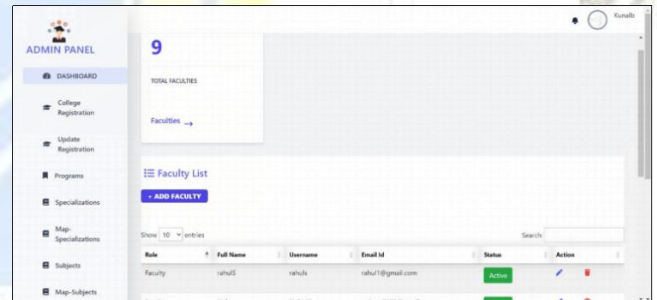

Fig 13: - Admin Panel Add Subject Page
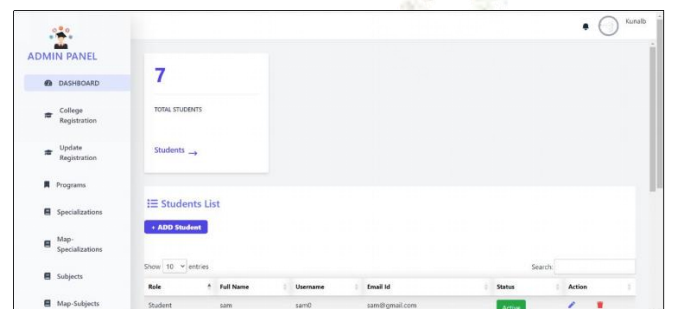

Fig 14: Admin Panel Faculty List Page

Fig 15: Admin Panel Student List Page

3) Faculty Panel: -

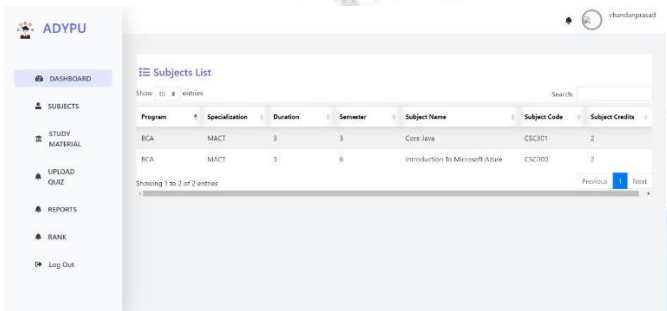Fig 16: - Faculty Login Screen

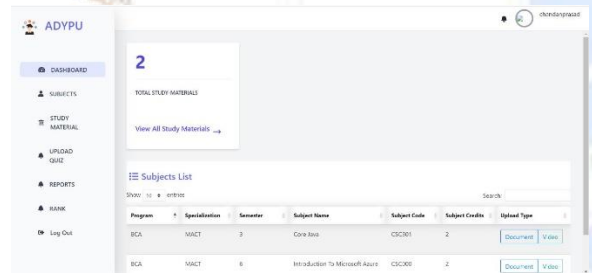Fig 17: - Faculty Subject List
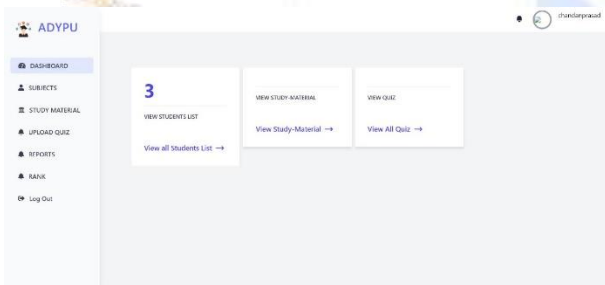

Fig 18- Faculty View All Study Materials

Fig 19: - Faculty View Student List

4) Student Panel: -

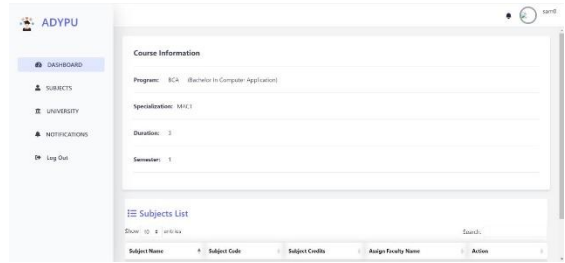

Fig 20: - Student Login

Fig 21: - Student Subject List

9. Conclusion & Future Scope

This project will be carried out in such a way as to make it easier for many students to prepare for upcoming interviews. We conclude that a student can learn more effectively using the VAK (Visual, Auditory, Kinesthetic) Learning Module based on the existing system and proposed system, which may lead to logic building, analytical intelligence, thinking & technical skills enhancement, and interview readiness. Currently, this project is based on interview preparation, and we offer subjective exam preparations with a variety of functionalities. However, in the future, we can expand this project where we may offer live learning courses in this application, such as Zoom Meet and Microsoft Teams.

One more thing we can do is work with programming platforms like CodeShef and many others to analyses platform results. In Future We can design analysis of student result and can provide Dynamic live dashboard for Super-admin and admin panel.

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