MAINPROJECT

TITLE: APTIFY – APTITUDE TEST TRAINING APP

DESCRIPTION

Aptify is a user-friendly platform designed to evaluate and improve users' problem-solving, logical reasoning, and general aptitude skills. Tailored for students preparing for competitive exams or interviews, the app offers features to support continuous learning and skill enhancement. The main objective is to provide a dynamic and interactive learning experience that helps users assess and enhance their aptitude skills through personalized quizzes and performance analysis.

EXISTING SYSTEM

The existing aptitude training methods rely primarily on traditional approaches such as printed books, static online resources, and basic mobile applications. These systems often offer a fixed set of questions with limited customization and lack interactivity. Users typically encounter repetitive content. While some apps provide basic quizzes, they often fail to simulate real-world testing environments or cater to the diverse learning needs of individuals. Moreover, the absence of gamified elements and adaptive learning mechanisms in current solutions results in lower engagement and motivation among users. As a result, the existing systems fall short of delivering a dynamic and comprehensive learning experience tailored to individual goals and challenges.

PROPOSED SYSTEM

The proposed system is an aptitude training application designed to address the limitations of current solutions. It features a regularly updated question bank integrated with APIs ensuring diverse and customizable questions across various topics and difficulty levels. Users can tailor their practice sessions by including topic selection, adjustable difficulty, varying quiz lengths, and time-bound simulations. The app provides instant scoring. To enhance user engagement, gamification elements such as leaderboards are incorporated. Additionally, the system tracks user progress over time, enabling personalized study plans and allowing users to revisit previous answers for targeted revision. With support for multiple question formats, including adaptive testing that adjusts difficulty in real-time, the app delivers engaging learning experience tailored to the unique needs of each user.

MODULES

1. Admin Module

   Responsibilities of admin include:
   - Faculty management - Add/Remove teachers, promote a teacher to department head
   - Department management – Add department, edit department information
   - Course management – Add course, edit course information
   - Quiz management – view/create quiz

2. User Module
   User module includes:
   - ➢ Log In using provided email and password
   - ➢ Profile Management – Update personal information
   - ➢ Take Quizzes
   - ➢ View Results
   - ➢ Review Incorrect Answers

3. Faculty Nodule
   Responsibilities of faculties include:
   - ➢ Student Management: Add/Remove students of their classes
   - ➢ Review Student Results

TABLE DESIGN

1. **tbl_admin**
   Primary key: admin_id
   Description: Stores admin-specific details

FIELD NAME	DATA TYPE	SIZE	DESCRIPTION
admin_id	INT	--	Unique ID of Admin
admin_name	VARCHAR	30	Name of Admin
admin_email	VARCHAR	30	Email ID of Admin
admin_password	VARCHAR	30	Password of Admin

2. **tbl_student**
   Primary key: student_id
   Foreign key: class_id
   Description: Stores student-specific details

FIELD NAME	DATA TYPE	SIZE	DESCRIPTION
student_id	INT	--	Unique ID of Student
class_id	INT	--	Unique ID of Class
student_name	VARCHAR	30	Name of Student
student_email	VARCHAR	30	Email ID of Student
student_password	VARCHAR	30	Password of Student
student_photo	VARCHAR	30	Photo of Student

3. **tbl_teacher**
   Primary key: teacher_id
   Foreign key: department_id
   Description: Stores teacher-specific details

FIELD NAME	DATA TYPE	SIZE	DESCRIPTION
teacher_id	INT	--	Unique ID of Admin
department_id	INT	--	Unique ID of Department
teacher_name	VARCHAR	30	Name of Admin
teacher_email	VARCHAR	30	Email of Admin
teacher_password	VARCHAR	30	Password of Admin
teacher_photo	VARCHAR	30	Photo of the Teacher

4. **tbl_quizhead**
   Primary key: quizhead_id
   Foreign key: student_id
   Description: Stores quiz-specific details such date of conducting quiz, total mark obtained by individual students and so on.

FIELD NAME	DATA TYPE	SIZE	DESCRIPTION
quizhead_id	INT	--	Unique ID of Quizhead
category_id	INT	--	Unique ID of Category
student_id	INT	--	Unique ID of Student
student_totalmark	INT	--	Total mark of each student
quiz_date	VARCHAR	30	Date of Conducting Quiz
quiz_category	VARCHAR	30	Category of the Quiz
quiz_difficulty	VARCHAR	30	Difficulty of the Quiz
quiz_type	VARCHAR	30	Type of Quiz

5. **tbl_category**
   Primary key: year_id
   Description: Stores year details

FIELD NAME	DATA TYPE	SIZE	DESCRIPTION
category_id	INT	--	Unique ID of Category

category_name	INT	--	Name of Category

6. **tbl_quiz**
   Primary key: quiz_id
   Foreign key: quizhead_id
   Description: Stores quiz-specific details such as questions, selected answers, correct answers and so on

FIELD NAME	DATA TYPE	SIZE	DESCRIPTION
quiz_id	INT	--	Unique ID of Quiz
quizhead_id	INT	--	Unique ID of Quizhead
quiz_question	VARCHAR	30	Questions in Quiz
quiz_selectanswer	VARCHAR	30	Answer Chose by Student
quiz_correctanswer	VARCHAR	30	Correct Answer to Question
quiz_mark	INT	--	Mark awarded to question

7. **tbl_department**
   Primary key: department_id
   Description: Stores department-specific details

FIELD NAME	DATA TYPE	SIZE	DESCRIPTION
department_id	INT	--	Unique ID of Department
department_name	VARCHAR	30	Name of Department

8. **tbl_course**
   Primary key: course_id
   Description: Stores course-specific details

FIELD NAME	DATA TYPE	SIZE	DESCRIPTION
course_id	INT	--	Unique ID of Admin
department_id	INT	--	Unique ID of Department
course_name	VARCHAR	30	Name of Course

9. **tbl_class**
   Primary key: class_id
   Description: Stores class-specific details for each batch students

FIELD NAME	DATA TYPE	SIZE	DESCRIPTION
class_id	INT	--	Unique ID of Class
Course_id	INT	--	Unique ID of Course
Year_id	INT	--	Unique ID of Year
Teacher_id	INT	--	Unique ID of Teacher
class_name	VARCHAR	30	Name of Class

10. **tbl_year**
    Primary key: year_id
    Description: Stores year details

FIELD NAME	DATA TYPE	SIZE	DESCRIPTION
year_id	INT	--	Unique ID of Year
year_name	INT	--	Year

11. **tbl_complaint**
    Primary key: complaint_id
    Foreign key: student_id
    Description: Stores complaint-specific details

FIELD NAME	DATA TYPE	SIZE	DESCRIPTION
complaint_id	INT	--	Unique ID of Complaint
student_id	INT	--	Unique ID of Student
complaint_title	VARCHAR	30	Title of Complaint
complaint_content	VARCHAR	250	Content of Complaint
complaint_reply	VARCHAR	250	Reply of Complaint
complaint_status	INT	--	Status of the Complaint
complaint_screenshot	VARCHAR	30	Screenshot Uploaded
complaint_date	VARCHAR	30	Date of Complaint

12. tbl_feedback
   Primary key: feedback_id
   Foreign key: student_id
   Description: Stores feedback-specific details

FIELD NAME	DATA TYPE	SIZE	DESCRIPTION
feedback_id	INT	--	Unique ID of Feedback
student_id	INT	--	Unique ID of Student
feedback_date	VARCHAR	30	Date of Feedback
feedback_content	VARCHAR	250	Content of Feedback