

# IQ Rush

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## **Problem Statement**

Many students experience difficulty performing well in quizzes, formative tests, and alternative assessments, not because of a lack of ability, but because of ineffective study habits and low engagement. Problems like poor time management, procrastination, lack of motivation, and no interest in schoolwork often prevent students from doing their best. These challenges result in bad performance and reduced confidence in learning. This situation needs to be solved immediately because of how common this is to students. Our quiz game can motivate students while helping strengthen their understanding of different subjects. (Edsys, n.d.)

## **Project Objectives**

We aim to support students in improving their academic performance through an interactive and fun learning experience. Specifically, the concept aims to:

- Provide a fun way for students to practice and prepare for quizzes and assessments
- Encourage better understanding of different academic subjects
- Promote positive learning habits such as focus, time awareness, and critical thinking.

Overall, the proposed game concept is intended to challenge students' knowledge across multiple subjects including Mathematics, Science, and Literature in a fun way, to encourage learners to become more confident, motivated, and academically prepared

## Planned Features

For the features of our game, we decided to add a grading system to reveal your scores and see how well you did. If you pass, the system will provide your best score. And if you fail, you'll be able to see what mistakes you made or what answers were wrong which would be highlighted. Each subject will have its own leaderboard—the best or highest score you have will be on the top of the leaderboard. We could also implement an adaptive experience, making difficulty levels personalized to the student. Another thing is that we could also add more refined feedback mechanisms, such as explaining why this is the right answer, and why it is wrong so that the student can understand their mistakes and solve it.

## Planned Inputs & Outputs

What we plan for the input variables is user generated, where they type in their preferred name or nickname, the subject they want to review, and their answers for the questions. We plan to use lists or dictionaries for input questions, answers, user data, etc.. We could also use the SQLite database to save leaderboard data and questions. For the outputs, we aim to show the user the leaderboard where they would place in or what would be their highest score. They could either choose to show the chronological order or the highest score to the lowest score they got and vice versa. We also propose to show the user the questions that would be answered, the feedback mechanisms we talked about, and the highlighted correct answers if ever they get a question wrong.

## Logic Plan

(Please refer to the flowgorithm file attached because flowgorithm files are not supported in Google Docs)

## References

Edsys. (n.d.). Why Do Students Fail? – Faculty's Perspective.

<https://www.edsys.in/why-do-students-fail/>



