

# **TestWizard**

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## **Product**

### **Problem**

Chegg is a popular edtech platform for students. It provides solutions to textbook questions, Q&A with experts and homework help among other solutions. It is a viable option for looking to prepare for a quiz or an exam. But limited questions extracted from existing content and dependency on other people for solutions do not make a seamless experience.

### **Solution**

TestWizard allows students to create quizzes from any document they provide. They can generate 'fill in the blank' questions, MCQs and even descriptive questions from any document. TestWizard also grades their solution and provides explanations for the awarded marks, allowing the user to learn and fill any gaps in their knowledge.

### **Target Audience**

We have mentioned students previously in this report, but industry professionals preparing for a certification, an interview or people looking to gauge their understanding of a topic are all suitable target audiences for this software.

## **Engineering**

### **High-level-design**

TestWizard accepts a document from which the user wishes to generate a quiz. The user then specifies the number of questions they want, the type of questions from three available types: fill in the blank, MCQs, descriptive or mixed (all of the types). A marking scheme for each question is also generated. TestWizard opens a web ui of a test screen containing the generated questions. The user submits their answers and receives feedback.

The prompt text for the checking and question generation mechanisms can be modified to receive different feedback as per preference.

### **Role of Generative AI**

Generative AI (gemini-1.0-pro) extracts the questions from the text document, creates a marking scheme for each question and grades the answers provided by a user against the created marking scheme.

## Technologies

We used the gemini-1.0-pro from google generative AI for passing prompts to achieve the desired results.

## Evaluation and Results

We generated quizzes for multiple documents over multiple subjects, looked at the questions generated, attempted the questions and viewed the feedback provided by TestWizard.

## Future

The maximum output characters generatable by TestWizard are limited to 2048 tokens. Increasing this will allow more questions to be generated in one prompt. Having an LMS of our own allows for a much more immersive classroom experience and exposing third-party APIs to allow usage of TestWizard by other applications will help with synchronising other LMS on the market.