Task Overview:

The task involves the development of a quiz system. This system's primary function is to allow users to enter answers and validate whether the provided answers are correct or not. Furthermore, there are specific actions that need to be implemented as part of this project, and different question types must be developed, with the UI design replicating the provided images.

Answer Validation: The core functionality of the system is to validate answers entered by users. The system will check whether the answers provided by users are correct based on predefined criteria and provide feedback accordingly.

Actions: Several actions are essential for the successful operation of the quiz system.

1. Flag: You can flag a question and can come later to finish it
2. Check: Allows you to check an answer
3. Resume: You can resume your quiz any time where you left.
4. Sound: Sound comes when you check and answer is wrong or right. On the wrong you will play some negative sound and on the right you will play a positive sound.

User Interface (UI): The UI of the quiz system needs to be designed to replicate the images provided.

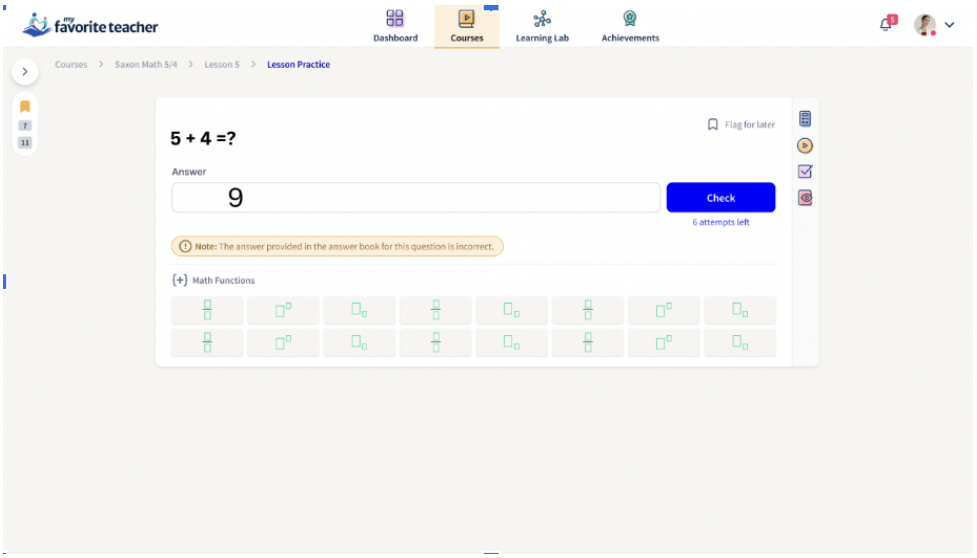
Questions Types: All the question types are explained below in detail.

1. Free Choice/Free Answer

A free-choice question type is a form of assessment where students are provided with a single input field to enter their answers.

This question type is commonly used in exams and is designed to test students' ability to express their answers in various formats such as fractions, square roots, cube roots, quadratic equations, and so on.

- Screenshot:



2. Fill in the Blank

Fill in Blank questions allow you to insert a blank line(s) or input field in the middle of a sentence or paragraph. Users then type the correct answer into this empty field. If more than one blank exists, all blanks must be answered correctly for the entire question to be marked correct.

Capitalization does not matter. PLAY, Play and play are all scored the same.

Blank spaces are created by providing the correct answer inside curly braces { and }.

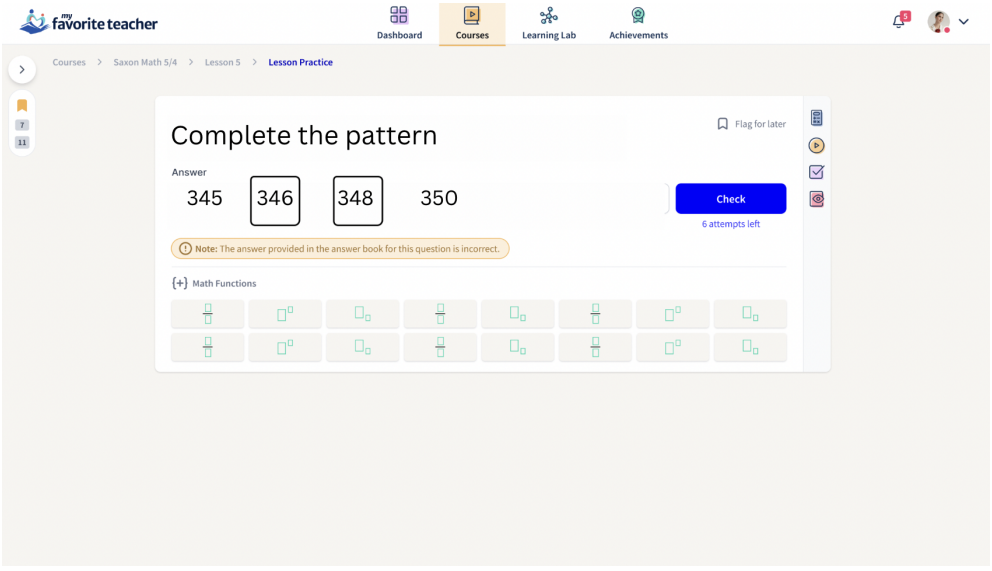
Example Format
Data received from the server: I **{play}** soccer.
User Sees: I ____ soccer.
The correct answer is “play”.

Multiple Possible Answers
To allow for multiple possible answers, enclose each possible answer with square brackets [and]. You still use { and } to create the blank space.

I **{[play][love][hate]}** soccer.

In this example, the user can enter “play,” “love” or “hate,” and they would all be accepted as correct.

- Screenshot:
  Complete the pattern.



3. Matrix Sorting

Matrix sorting choice questions are an effective way to assess a user's ability to match two items together. The question is composed of two parts:

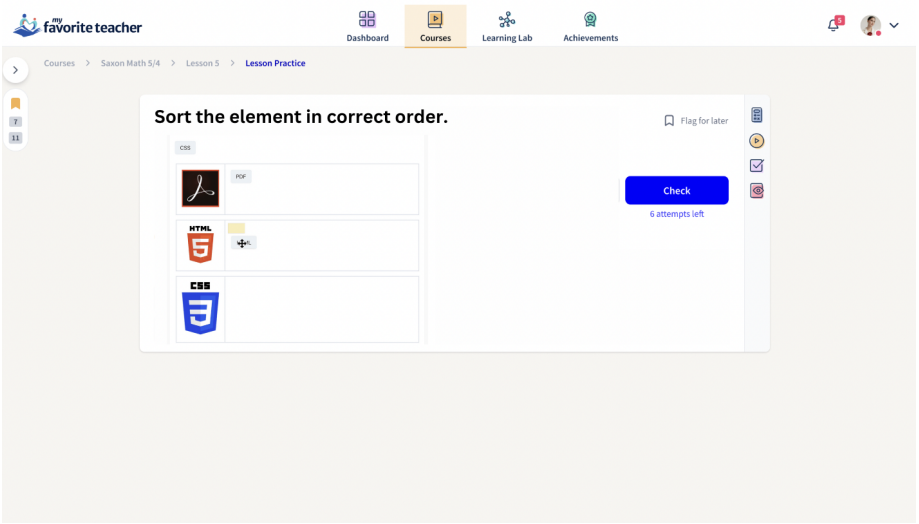
the criterion, which is static and cannot be moved, and the sort elements, which the user drags and drops to match the correct criterion.

Each sort element must be unique, and only one-to-one associations are supported. The answer area is displayed in a table format, with the criterion on the left and an open area on the right for the user to drag and drop the sort elements. You can add images, maths equations, and HTML in the options.

For example, a matrix sorting choice question could be used to test a user's knowledge of different animal classifications. The criterion could list different animal groups, such as mammals, reptiles, and birds, and the sort elements could include different animals that the user would need to match to the correct group.

This type of question allows for a visually engaging and interactive way for users to demonstrate their understanding of the material.

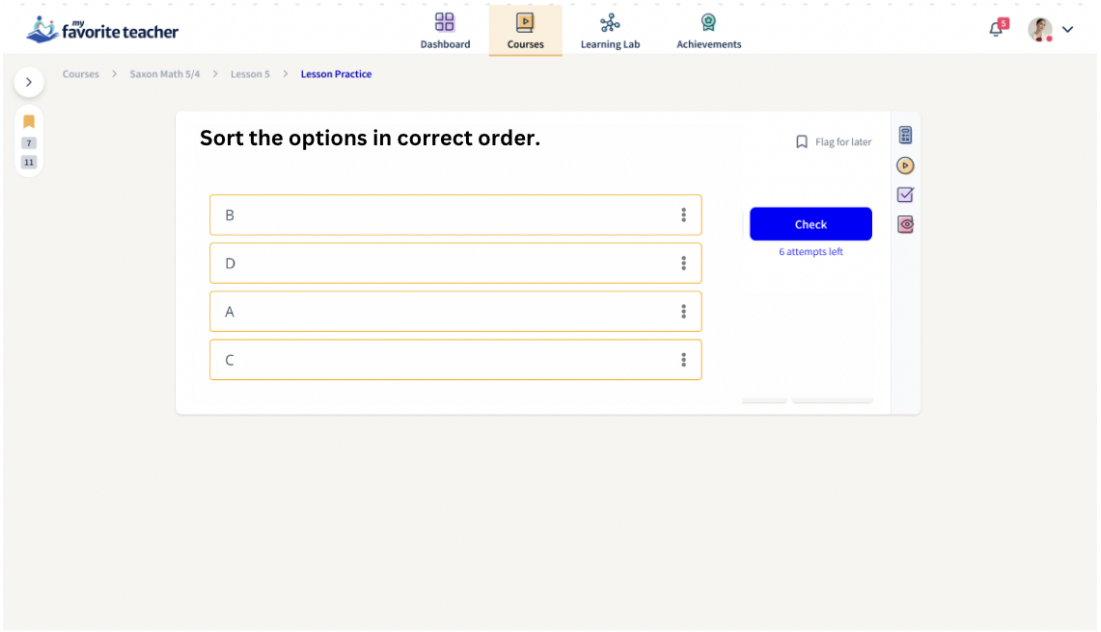
- Screenshot



4. Sorting

Sorting choice questions ask the user to place a series of answers in the correct order. You have to set the order of items in the right order which came from the backend. You can add images, maths equations, and HTML in the options.
For example, sort: B, D, A, and C in the right order which will be A, B, C, and D

- Screenshot

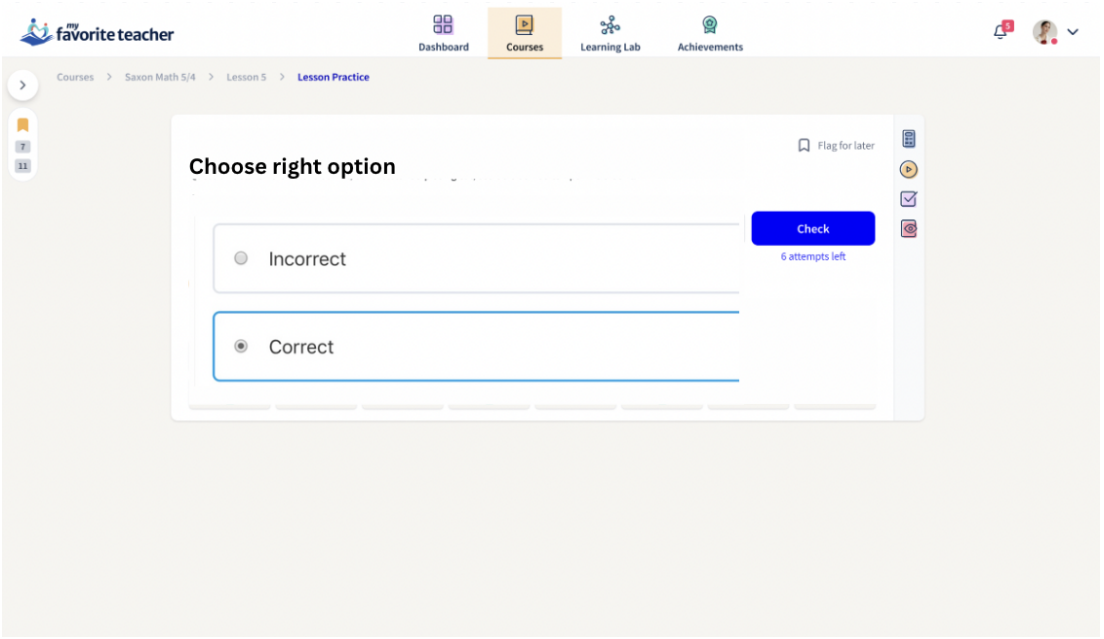


5. Single choice

Single-choice questions are used when there is only one correct answer, which is the most common question format for standardised tests. When creating a single-choice question, there is no limit to the number of incorrect answers that can be provided. To choose the correct answer, the user simply needs to select the radio button for the "Correct" option.

You can add images, maths equations, and HTML in the options.

- Screenshot



6. Multiple Choice

Multiple choice questions allow for multiple correct answers to be selected, in place of radio it will be a checkbox so that users can select multiple answers and all correct answers must be chosen for the question to be marked as correct. Unlike single-choice questions, there is no limit to the number of correct or incorrect answers that can be provided.

You can add images, maths equations, and HTML in the options.

- Screenshot