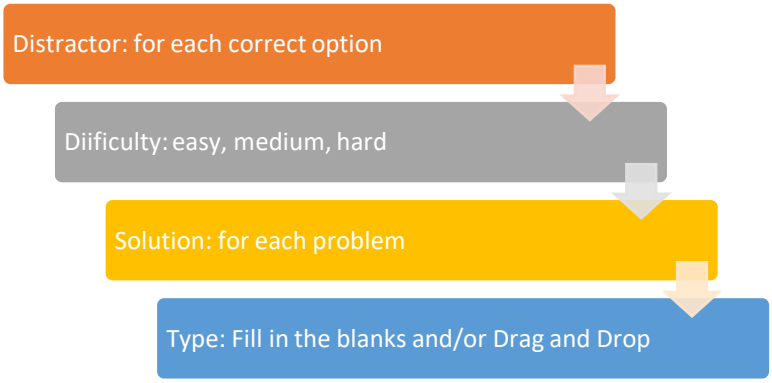
DIFFERENT TYPES OF PARSONS PROBLEMS:

- The correct code blocks that are mixed up and have to be placed into the correct order.(**DRAG AND DROP**)
- All the correct code blocks as well as distracting blocks that contain code with syntax, sematic, or logic errors. (**DRAG AND DROP & DISTRACTOR**)
  There are two sub-types of Parsons problems with distractors:
  Paired type: the correct code block and incorrect code block are shown as pairs so that the solver only has to choose between them.
  Un-paired type: the code and incorrect code blocks are not shown in pairs, but are all jumbled together.
- Indent the code blocks as well as order them. These are called two-dimensional Parsons problems. (**DRAG AND DROP , DISTRACTOR & INDENTATION**)
- Some provide some or most of the correct code that is needed, but the solver must provide (type or write by hand) some of the needed code or at least add symbols to indicate the block structure(indentation). (**DRAG AND DROP , DISTRACTOR , INDENTATION & FILL IN THE BLANKS**)
- Solution code already in order, and the solver only needs to add code to complete the solution. (**FILL IN THE BLANKS**)

Practising criteria for beginners and its implementation assessment tool:

The same criteria can be used universally for different topics, as sematics and syntax assessment tool can be applied to all topics that follow a seqential set of instructions except the part of indentation which is essential in programming. Hence, identation will just be an optional function, as it will be required for programming parsons puzzle and not the other topics where its not desired.

DESIGNING THE GUI:



Implementing the Graphical User Interface(GUI):

Figure 1: The funtion of parsons puzzle will have two steps, 1st will be the settings, where thre is a option of adding the background image to the play area of the puzzle and also specification of the task area size.

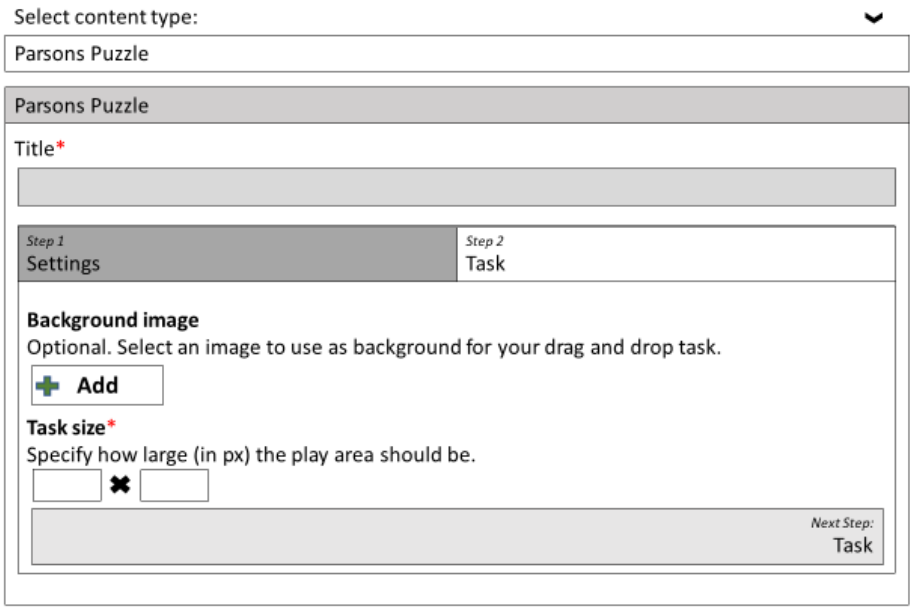


Figure 2: The step 2 is the step of adding the task, where the drop zone and text can be added to play area of the puzzle. The drop zone is basically the drop zone to be added to the solution panel of the following options. The drop zone will have the correct options and distractors.

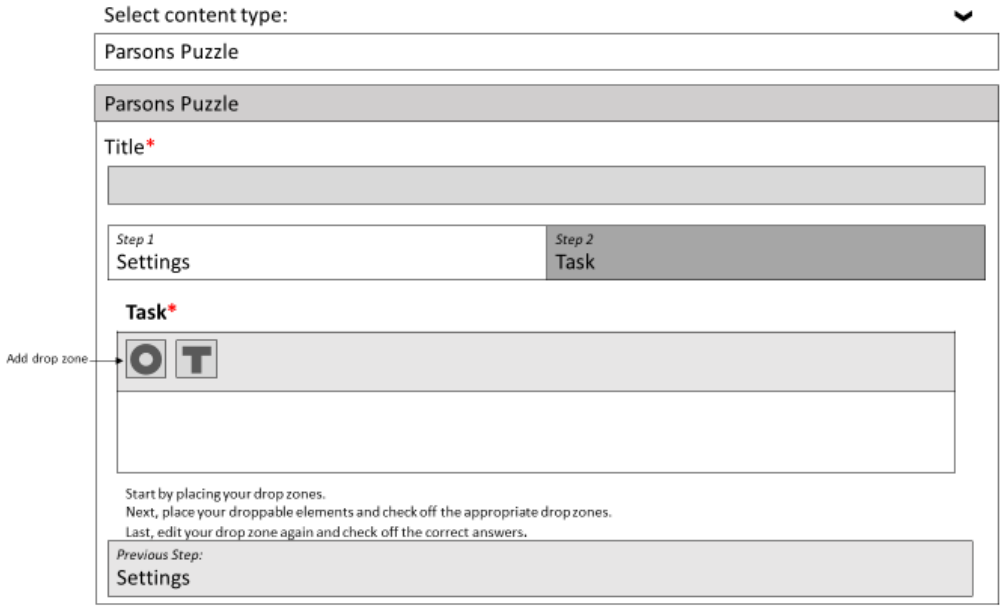


Figure 3: When the instructor needs to add the drop zone, which is basically the option of the task(problem),the instructor can also drop some hints or provide the feedback for the correct/incorrect choice opted by the student.

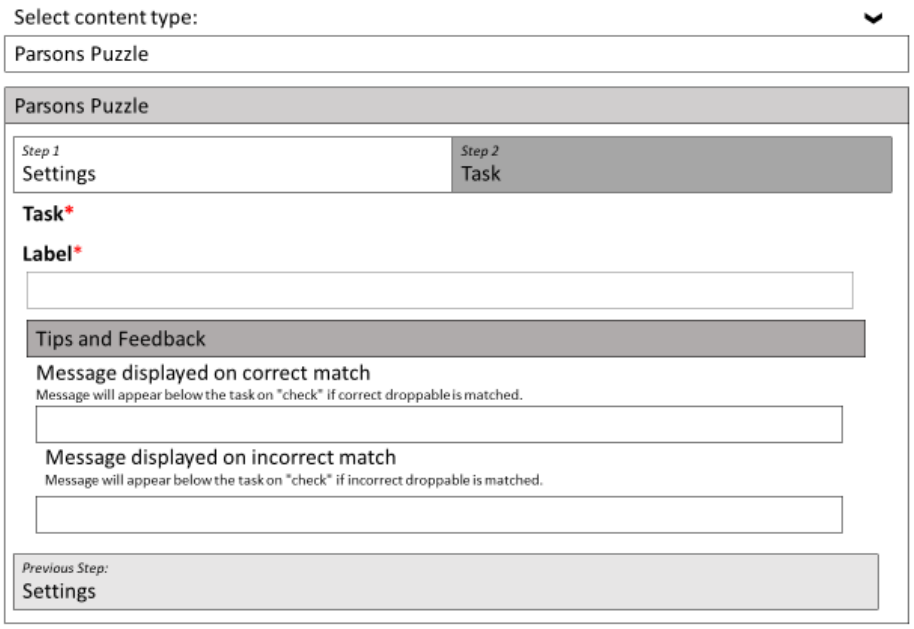


Figure 4: The instructor will also be able to add the score range for the students, and depending on the score, feedback can be given by instructor.(Pass:Move to next Question or Fail: Retry)

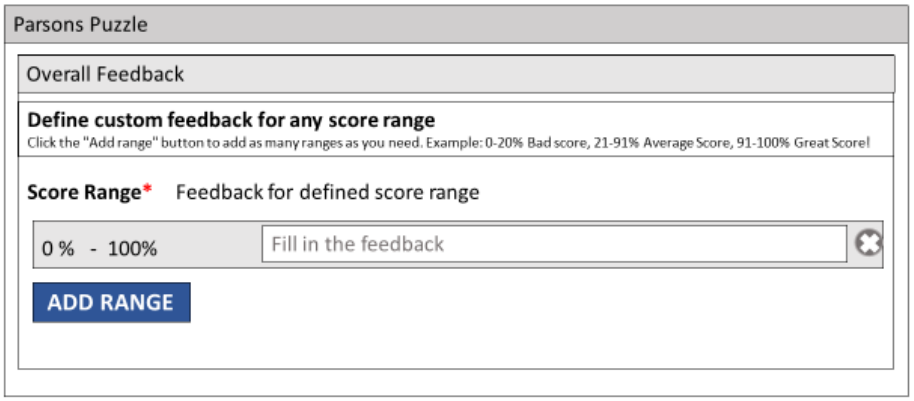
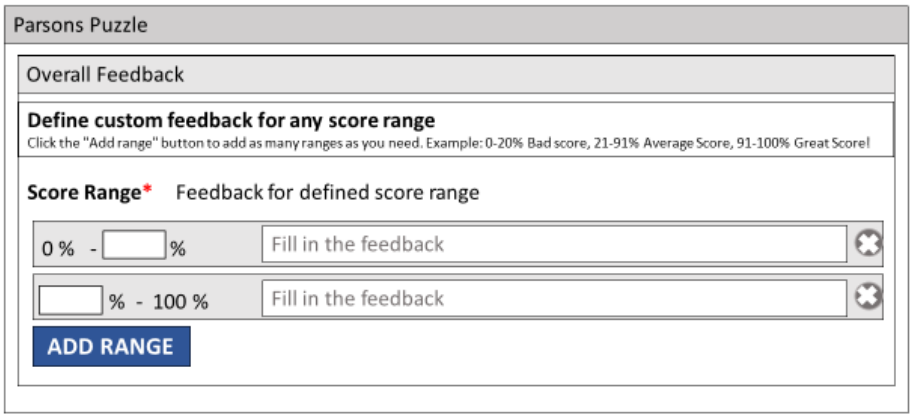


Figure 5: The score range can be divided by the instructor to choose group of students in a certain range, for eg, students with score from 0 to 50, will be provided extra class for the particular topic the puzzle has been set.



Main challenges for me till now:

- Designing a simple parsons puzzle in H5P which can be used for any topic which is algorithmic requires a complete understanding of parsons puzzle and H5P. There are so many functionalities that H5P has, it takes some time to try out and get used to the interface and to think how to harness, whats already there into your project.
- There is a lot of information about the already developed designs, which is basically how the user will see it. But not much information is there about how to create the design for the instructor who will actually use our project to create parsons puzzle for students. So taking the note of functions of H5P and trying to design it for instructor, and keeping it as simple as possible, so that it's executed by the team in the given timeframe is challenging.
- Analyzing the benefits, and understanding the value preposition of the project for the pitch, and structuring the work and creating deadlines is challenging, as we all are at home, and are working over the project remotely. While creating the business plan, managing the structure and developing the document without any given template or standard convention was challenging.

My contribution for the project till now:

- Researching the designs and developing the universal design of the Parsons Puzzle.
- Creation and development of business plan and first version of pitch presentation.
- Developing the GUI for the parsons puzzle.