I this video you will be walked through a web application that is intended to enhance the teaching and the learning process in areas that benefit from using worked examples. These are examples which provide a set-by-step guide through a process of thinking needed for reaching the solution of a problem. They help in gaining a better understanding of the subject while reducing the cognitive workload.

This web application is called Weave which is short for Worked Examples Viewer. It targets schools across the UK where subjects like Computing Science would benefit from online worked examples. It aims to achieve two goals. The first goal is to present students with worked examples for them to use during classes or for homework. The second goal is to enable teachers to monitor how their students are using Weave and show them this usage information in a format that is easily perceivable and encourages them to analyse these results and adapt their teaching accordingly.

Lets first go in the shoes of pupils in schools and explore what Weave offers them. The pupil may be given some identifying information which would enable their teacher to monitor their progress. This information consists of all or some of teacher ID, group ID and student ID. On the home page of the student interface you can see a small form asking you for a teacher ID. If your teacher didn’t give you one, you need to click on No teacher ID button in order to proceed. In this case you will be informed that you are using the application anonymously which means that your teacher would not be able to monitor your progress. To change this you need to go to the Reset Details are on the top right corner. Once these details are stored, the pupil will be given the opportunity to select worked examples to view. The worked examples options are shown on the place of the registration boxes and on the top left corner of the navigation bar to make the selection process easier when the user is not on the home page. If you know the name of the worked example you are interested in you can search for it by starting to type its name in the search area. If at any point you have doubts what to do or how to use Weave, there a tutorial on the right hand side explaining all the features and tricks so you can refer to it.

Lets choose an interesting example to go through. Imagine we wanted to know how a door entry system written in Python would monitor the access to a building. Hopefully, we are not planning on robbing a bank. We can see that the area is split into 3 parts. The 2 larger central areas contain the problem and its solution and the area on the bottom contains explanation. We click on the Start button and we can see that the problem specification starts appearing in the first area. The new are highlighted in pink and to make sure you don’t miss them the application takes a few moments to scroll automatically to all of them before you can gain back control on scrolling. This encourages you to think about how to solve this part of the problem. To confirm that your guess is in the right direction you should read the explanation at the bottom. Once you have done that you click the arrows on the top right corner or on your keyboard to navigate through the example. You can resize the different areas on screen as it suits you. On some steps you may be asked a question to check your knowledge.