

# FOAR705 - S.Goldie Learning Journal

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## Using LaTeX to create a document

### Aims:

- familiarise myself with document creation system
- create entry for learning journal

### Resources:

- Overleaf for LaTeX - Online editor
- Overleaf guide -

[https://www.overleaf.com/learn/latex/Learn\\_LaTeX\\_in\\_30\\_minutes](https://www.overleaf.com/learn/latex/Learn_LaTeX_in_30_minutes)

### Expectations:

- The guide claims to be able to teach me how to cover the basics of LaTeX in 30 minutes
- That I will be able to create a document, and replicate this process on my own without the guide

## Experience/Errors

When copying in code from the guide, I duplicated a line which had additional information. The error was highlighted when I tried to recompile the document and I noted that the changes I expected had not been made. See figure 1.

I removed the first line of code instead of the highlighted one – as I considered that while the highlighted was the second instance but had the more relevant information in it.

I continued following the instructions. See figure 2. I was confused as to why the title/author information wasn't appearing on the document and spent too long re-reading that section. When I looked at the next section of the guide this was resolved using the "maketitle" code line.

See figure 3 for error when inserting an image. This was due to the image being too wide for the page dimensions set in the preamble. I was able to fix this by changing the specified width of the image. I tried a more basic way to include the image – and had a similar error see figure 4.

This confused me, until I looked at the preview screen. As the program is interpreting the code directly – it is not adding the line break space between text and line. Once I added a line this problem was resolved.

In following the guide, I tried adding a figure – but it didn't appear when I recompiled. I realised I had entered the code below the tag -

```
\end{document}
```

See figure 5.

Inserting the figure wasn't working. The text and the image were separating – the text was above the image when I wanted it below. See figure 7. I wasn't sure how to fix it – so I viewed an example template on overleaf – this was super helpful – and it showed me that the documents for the project on the left could be nested in folders – thus explaining the graphic path line of code for the image registry folder. So I applied this in my document as well. See figure 6.

However I was still having issues with the image and text appearing in an order contrary to my desire, and I had an error with the cross references I was trying to create. See figure 8.

I read the log error and realised the issue with the cross references was I had change the label for the figure – and so the reference wasn't linking to anything it could find. See figure 9.

The issue with the image ordering etc – comes from the “float” directive. The letters following the tag:

```
\begin{figure}[*]
```

indicate how the document will place the image \* here can be various indicators. Changing these on my figures doesn't solve my problem I added a page break tag:

```
\pagebreak
```

I added this under my first image – as well as changing the float indicators to ‘h’ – this seemed to fix the problem – though I'm not sure its foolproof.

The next step was to create lists in the document. When I first did this the bold text tag didn't work when a capital letter was included. See figure 10. I also tried using the section and subsection tags.

I tired different text formatting options: See figure 11.

I tried sections etc and the chapter tag didn't work – this I found is because this is only available in “book” or “report” document classes. See figure 12.

## Reflections

So this process did not take 30minutes – this took me closer to an hour – partly because I was documenting the process – but also because all did not go as quickly when I was actively trying to understand how this system worked.

Creating the actual learning journal document then took significantly longer as well - as I was implementing a wider scope of actions compared to the practice.

When I begin to create the learning journal document using LaTeX – I continue to have issues with image placement in relation to text and the ordering of such objects. So I placed all the images in their own section and utilised the cross referencing. This is not my preference for this kind of document - but it is fit enough for purpose at this stage.

I also experienced my first "fatal" errors that prevented the document compiling at all - these were scary at first. Then I found with the language I had been learning through the tutorial, and my own practice I was able to understand the error. I generally fixed this by first removing the code/element I had been trying to add/create, and closely examine what i was trying to do and how - rereading notes and guides on doing so.

Ultimately I was able to learn to create a document using LaTeX. However, I wasn't able to immediately complete another document unassisted. New problems occurred, which required checking previous notes and further guides. Certainly I think this will be a factor of using this new system for quite some time, and filtering the relevant information can be difficult as well.

I still have a problem with the formatting on my first page with the alignment of paragraphs under the word "Aims:". I think this is a problem I will need to take to my teachers for more insight - as I have not found a solution through my guides.

# Figures

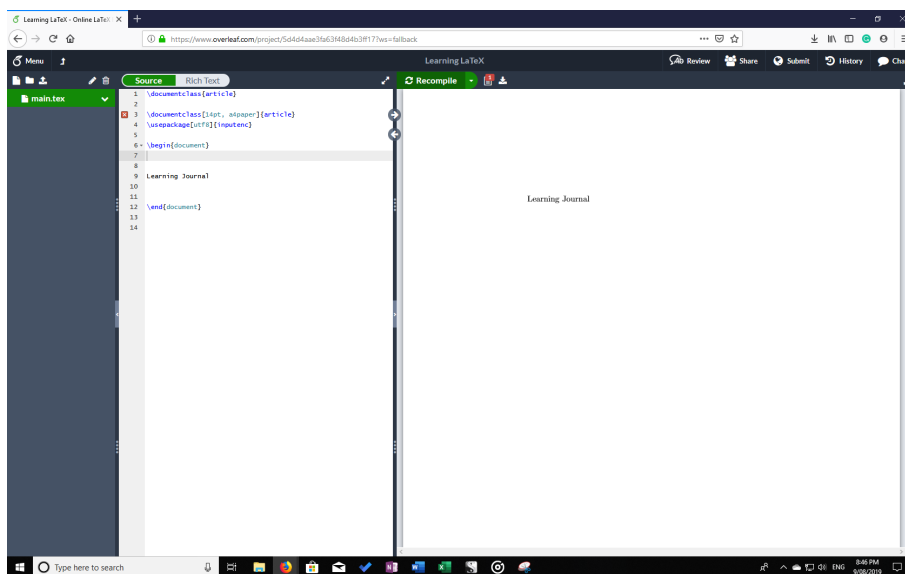


Figure 1: My first LaTeX Error

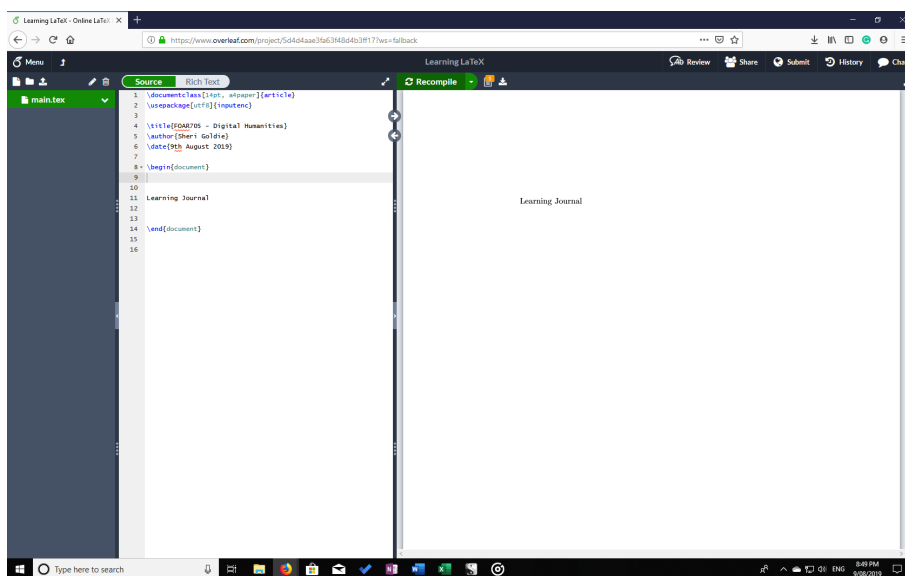


Figure 2: Problem still present

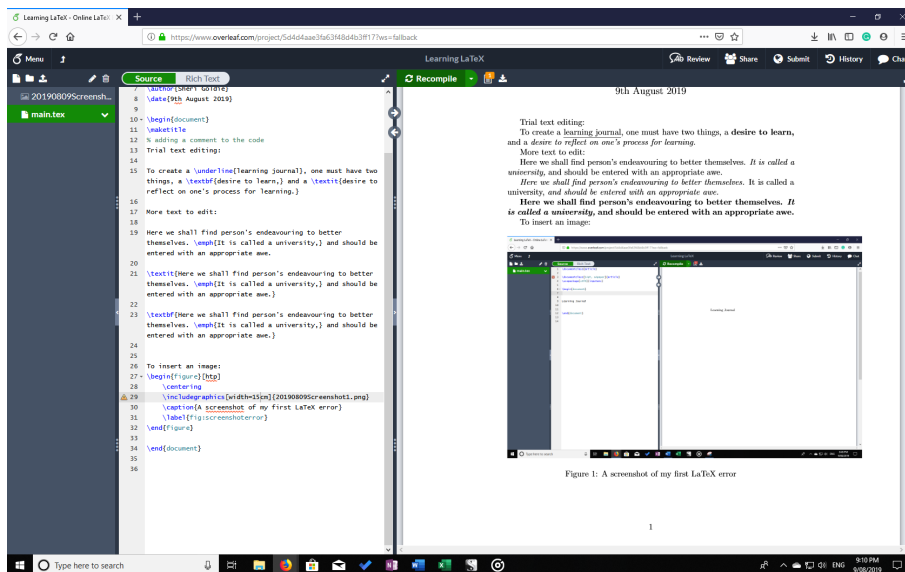


Figure 3: Image errors

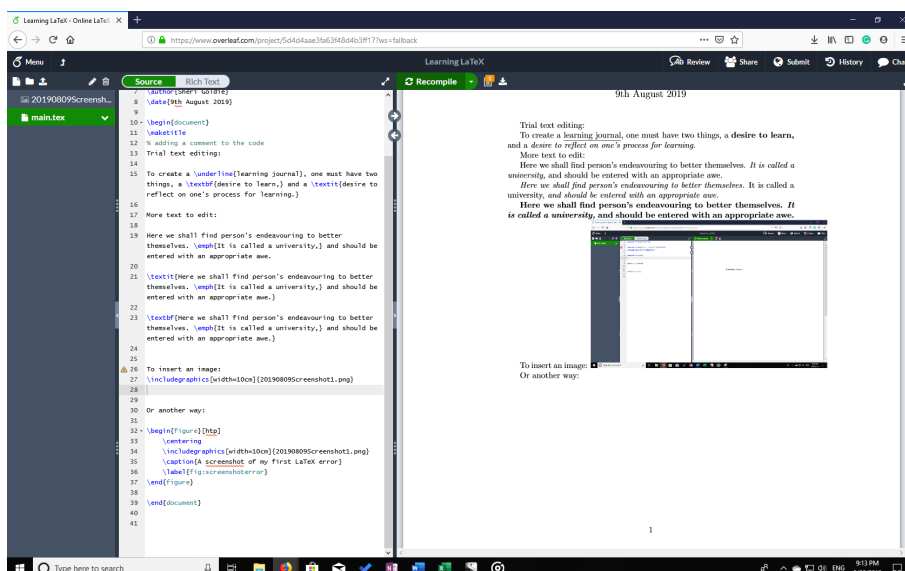


Figure 4: Image Errors 2

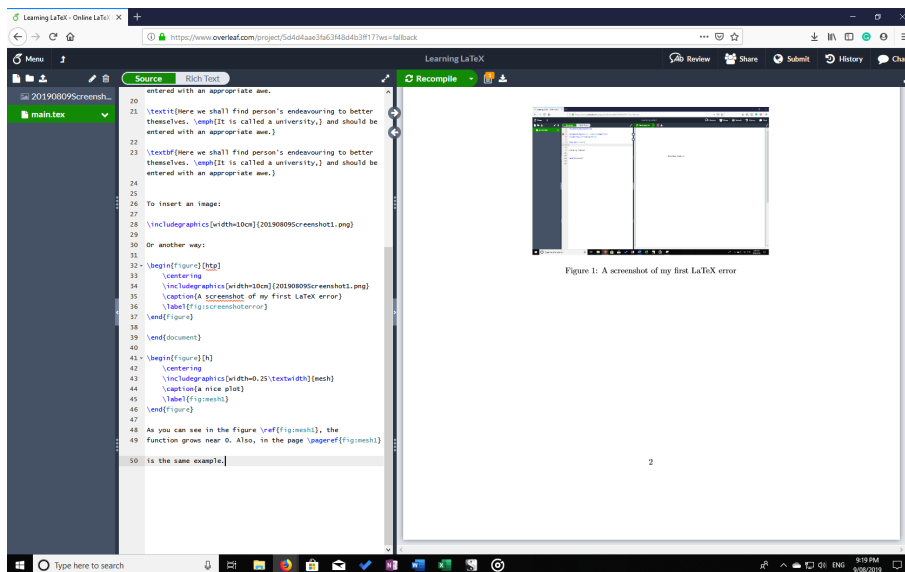


Figure 5: Element placed below end document tag

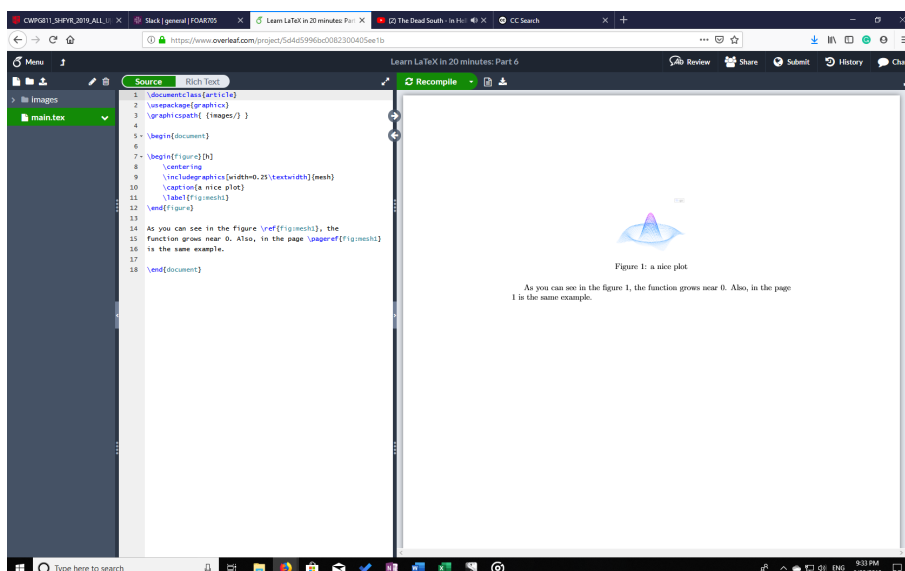


Figure 6: Example document from Overleaf tutorial

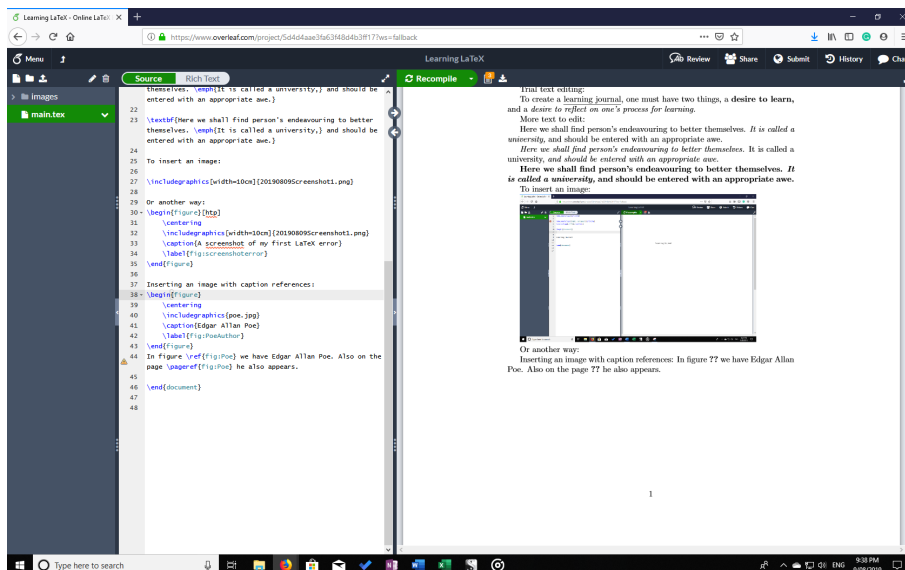


Figure 7: Labeling Figures properly

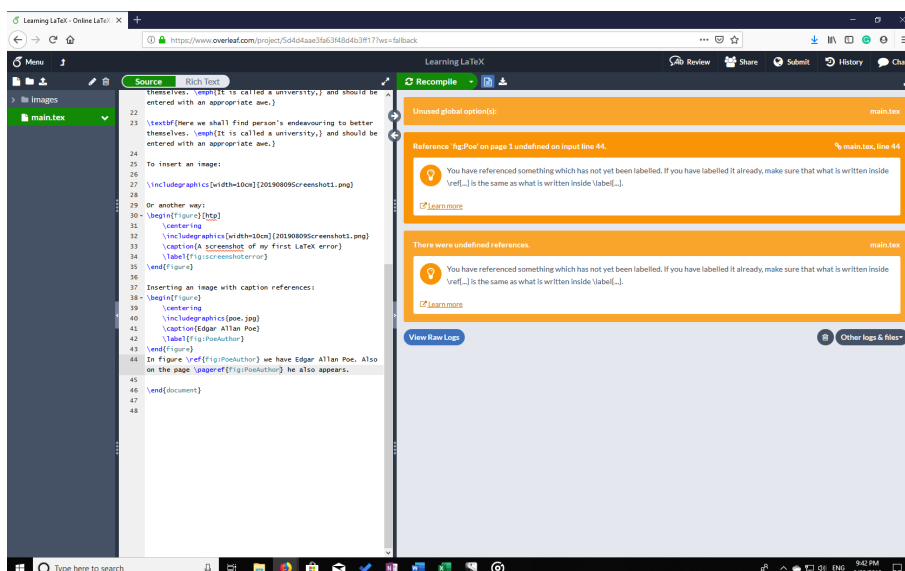


Figure 8: Resolving error messages

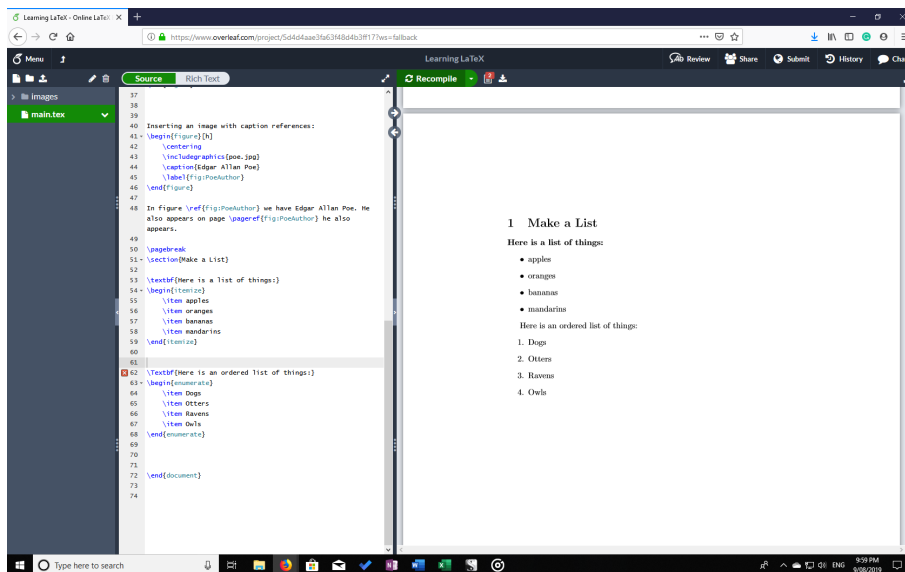


Figure 9: Making a list

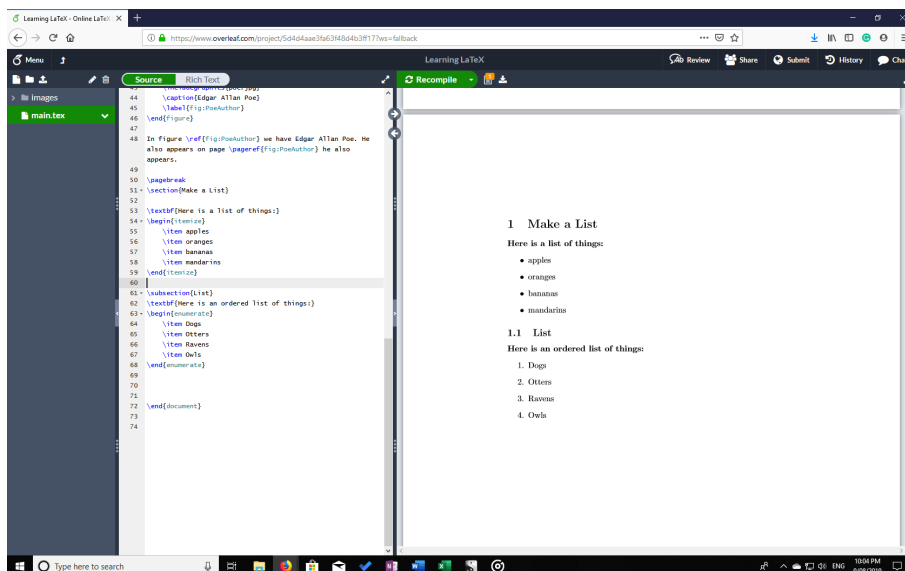


Figure 10: Making a subsection



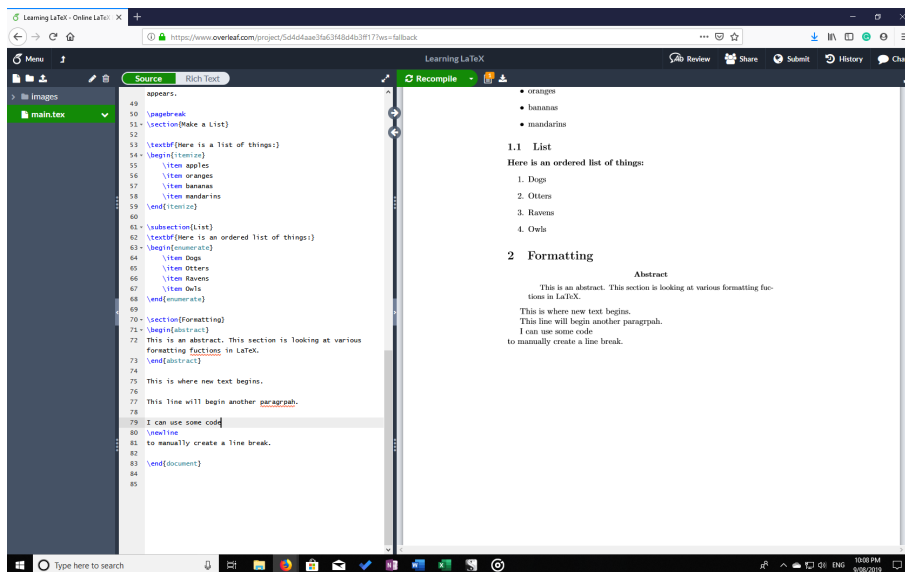


Figure 11: Text style formatting

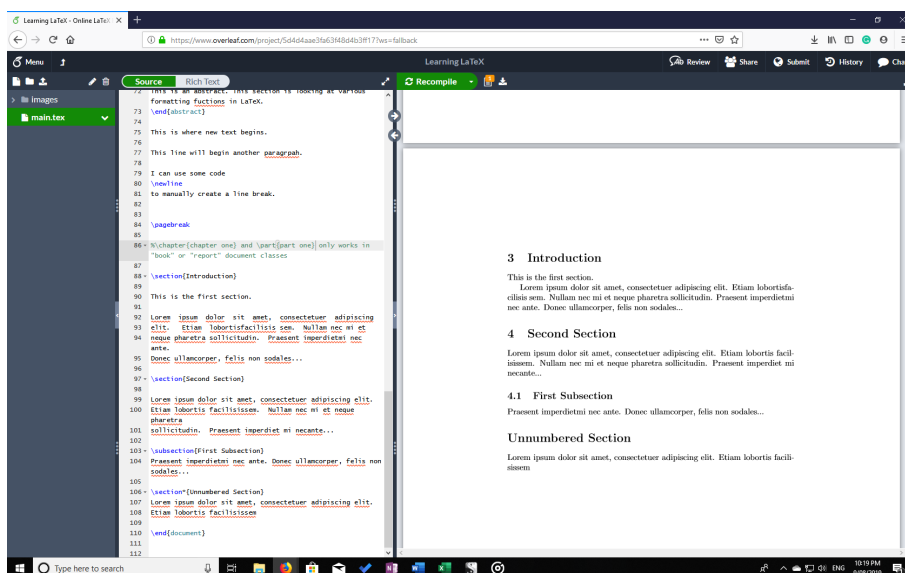


Figure 12: Section formatting