

# What Is $\text{\LaTeX}$ ?

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# What is L<sup>A</sup>T<sub>E</sub>X?

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The purpose of this project group will be to introduce you to  $\text{\LaTeX}$  and to give you some familiarity with using it to prepare a document.

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$$\oint_{\partial R} \mathbf{F} d\mathbf{x} = \int \int_R \nabla \times \mathbf{F} \cdot d\mathbf{R}$$

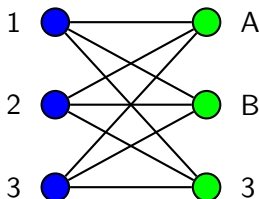
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or you want a diagram that looks like this:



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$\text{\LaTeX}$  also supports code highlighting:

```
# Insertion sort implemented in python
def insertion_sort(data) :
    for i in range(1, len(data)) :
        j = i
        while j > 0 and data[j-1] > data[j] :
            data[j], data[j-1] = data[j-1], data[j]
            j -= 1
    return data
```

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Unlike Word or Docs, which are What-You-See-Is-What-You-Get (WYSIWYG) editors,  $\text{\LaTeX}$  is a **markup** language.



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That means that in L<sup>A</sup>T<sub>E</sub>X, a mathematical formula like the one we saw earlier that looks like this

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\[  
  \oint_{\partial R} \mathbf{F} \, d\mathbf{x}  
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$\text{\LaTeX}$ 's capabilities can also be extended with **packages**, which we will discuss later.

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For our purposes, we will use Overleaf since it's easier to start with.

## For next week

1. Make sure you have created an Overleaf account
2. Explore! You can find documentation for basic tasks at <https://www.overleaf.com/learn>, or you can simply experiment with a blank document