

INTRODUCCIÓN A LATEX

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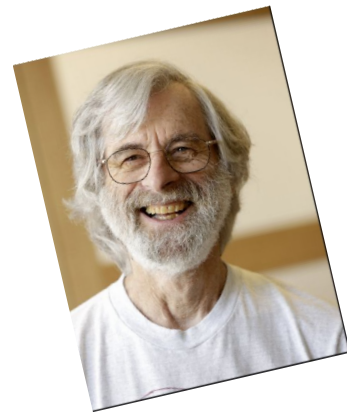
¿QUÉ ES LATEX?



El sistema TeX se pronuncia [tej.] es un sofisticado programa para la composición de textos científicos. Por otra parte LaTeX es un conjunto de programas que ejecutan paso a paso una serie de instrucciones dadas en TeX.

Es importante aclarar que LaTeX. No es un procesador de textos; se puede considerar un lenguaje que nos permite preparar automáticamente un documento.

La diferencia con un procesador de texto es que nos permite un control en cualquier aspecto tipográfico del documento.



Leslie Lamport



Donald Knuth

MOTIVACIÓN



Al estar enfocado a una comunidad en mayor medida científica, de apertura a la elaboración de artículos de revista, papers, libros, carteles, folletos, presentaciones (estilo Powerpoint), etc.



EDITORES TEX

Para poder editar en lenguaje TeX es necesario contar con una distribución de TeX.(TeXLive, Mactex ... etc)

Una distribución TEX contiene el núcleo principal del programa, paquetes y extensiones para poner a funcionar tex sobre un sistema operativo.

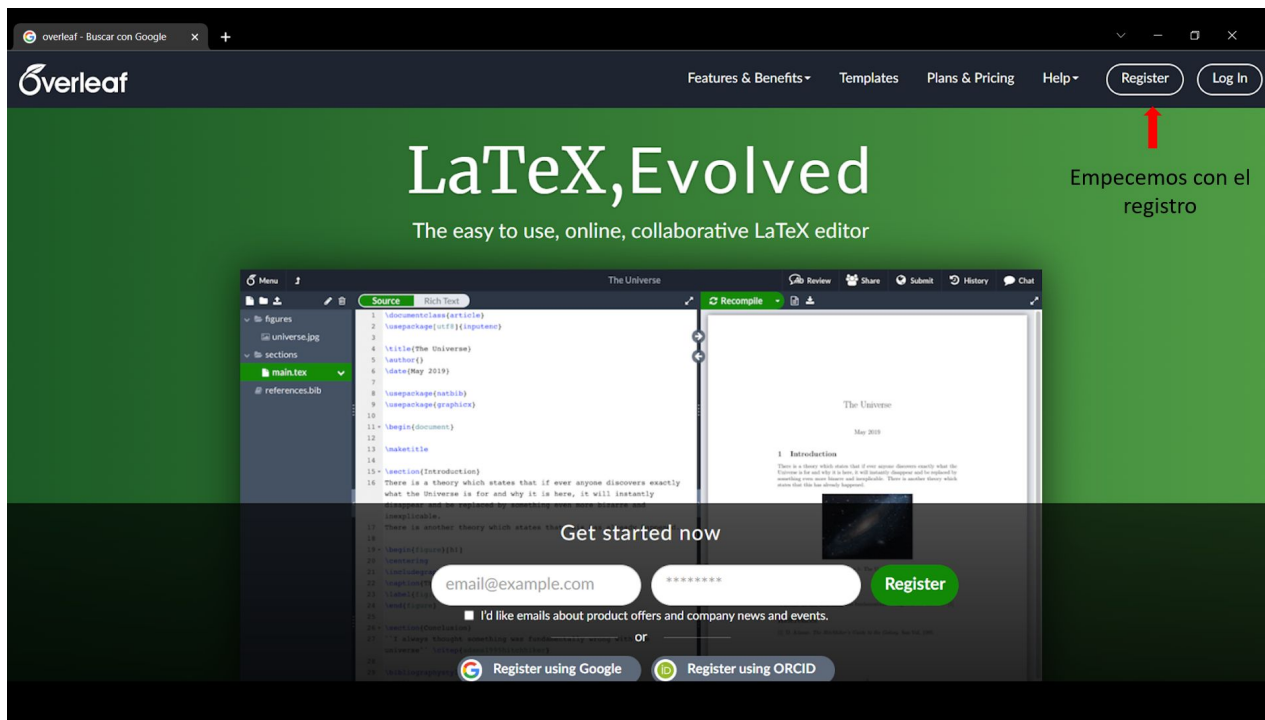
Lo siguiente es contar con un editor. (TextMaker, Texstudio ... etc). El editor buscará la instalación TeX/LaTeX automáticamente. Mediante este editor se podrá generar los documentos.





CREAR CUENTA OVERLEAF

- Iniciamos el navegador y entramos a la página principal de Overleaf (es.overleaf.com) y seleccionamos la opción “Registrarse”



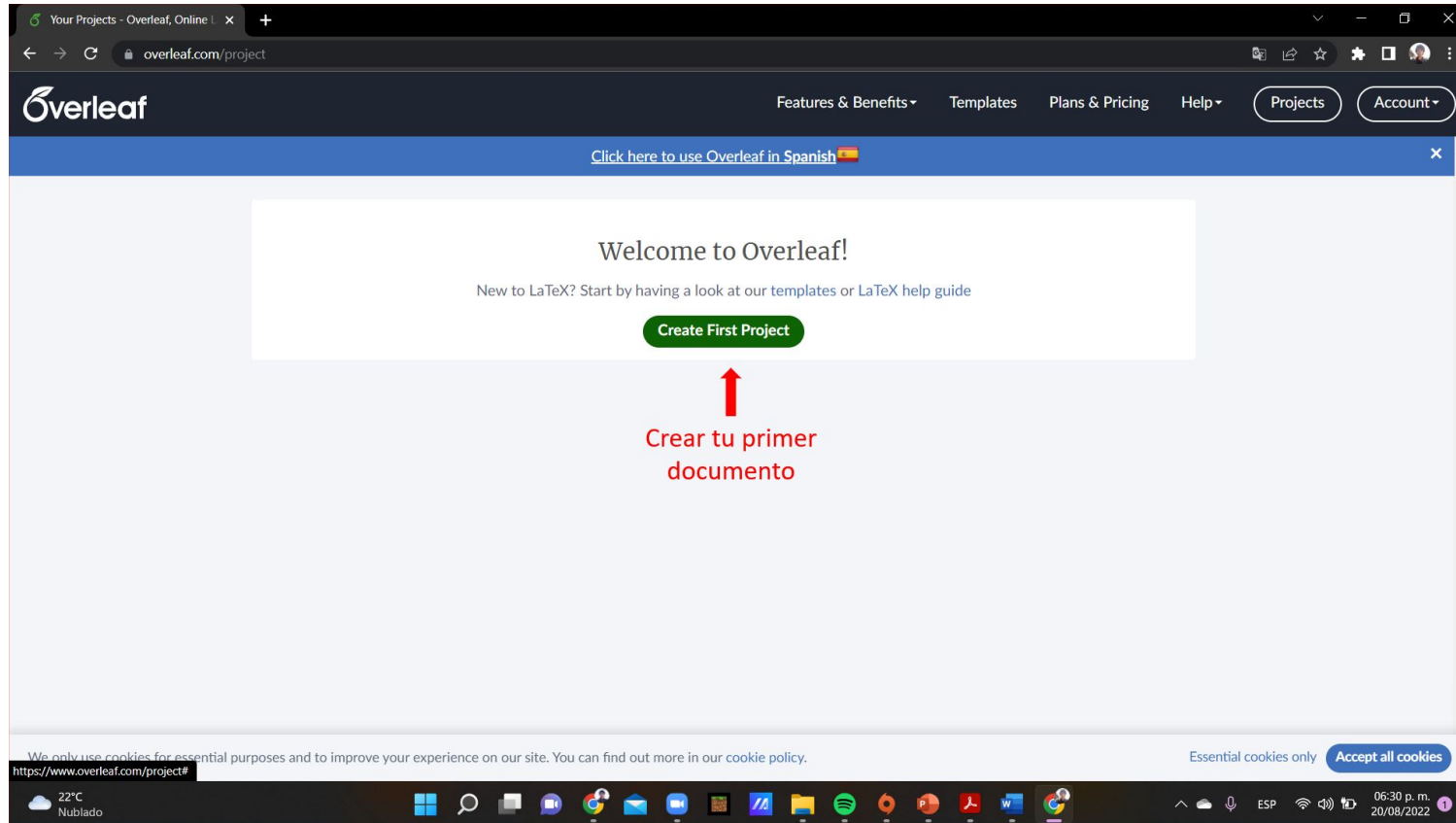
Al obtener este Menú.
Seleccionamos una de las opciones de registro.

The screenshot shows the Overleaf login page. The browser's address bar displays 'es.overleaf.com/login'. The navigation bar at the top includes links for 'Features & Benefits', 'Templates', 'Planes y precios', 'Ayuda', and buttons for 'Registrarse' and 'Ingresar'. The main content area is titled 'Log in to Overleaf' and contains two primary registration paths:

- Registro básico:** Indicated by a red bracket on the left, this path involves filling out an 'Email' field and a 'Password' field. A tooltip 'Completa este campo' points to the password field. Below these fields is a green button labeled 'Log in with your email'.
- Registro rápido:** Indicated by a red bracket on the right, this path consists of four social login buttons: 'Log in with IEEE', 'Log in with Google', 'Log in with Twitter', and 'Log in with ORCID'.

Below the social login buttons is a link that says 'Log in through your institution'. At the bottom of the page, a cookie policy banner states: 'We only use cookies for essential purposes and to improve your experience on our site. You can find out more in our cookie policy.' with an 'Accept all cookies' button.

Creamos nuestro primer documento



The screenshot shows the Overleaf website interface. At the top, there is a navigation bar with the Overleaf logo on the left and links for 'Features & Benefits', 'Templates', 'Plans & Pricing', 'Help', 'Projects', and 'Account' on the right. Below the navigation bar is a blue banner with the text 'Click here to use Overleaf in Spanish' and a Spanish flag icon. The main content area has a light blue background. In the center, there is a white box with the text 'Welcome to Overleaf!' and 'New to LaTeX? Start by having a look at our templates or LaTeX help guide'. Below this text is a green button labeled 'Create First Project'. A red arrow points upwards from the text 'Crear tu primer documento' to the 'Create First Project' button. At the bottom of the page, there is a cookie consent banner that says 'We only use cookies for essential purposes and to improve your experience on our site. You can find out more in our cookie policy.' and a button labeled 'Accept all cookies'. The browser's address bar shows 'overleaf.com/project'. The Windows taskbar is visible at the bottom of the screen.

Overleaf

Features & Benefits Templates Plans & Pricing Help Projects Account

Click here to use Overleaf in Spanish

Welcome to Overleaf!

New to LaTeX? Start by having a look at our templates or LaTeX help guide

Create First Project

Crear tu primer documento

We only use cookies for essential purposes and to improve your experience on our site. You can find out more in our cookie policy.

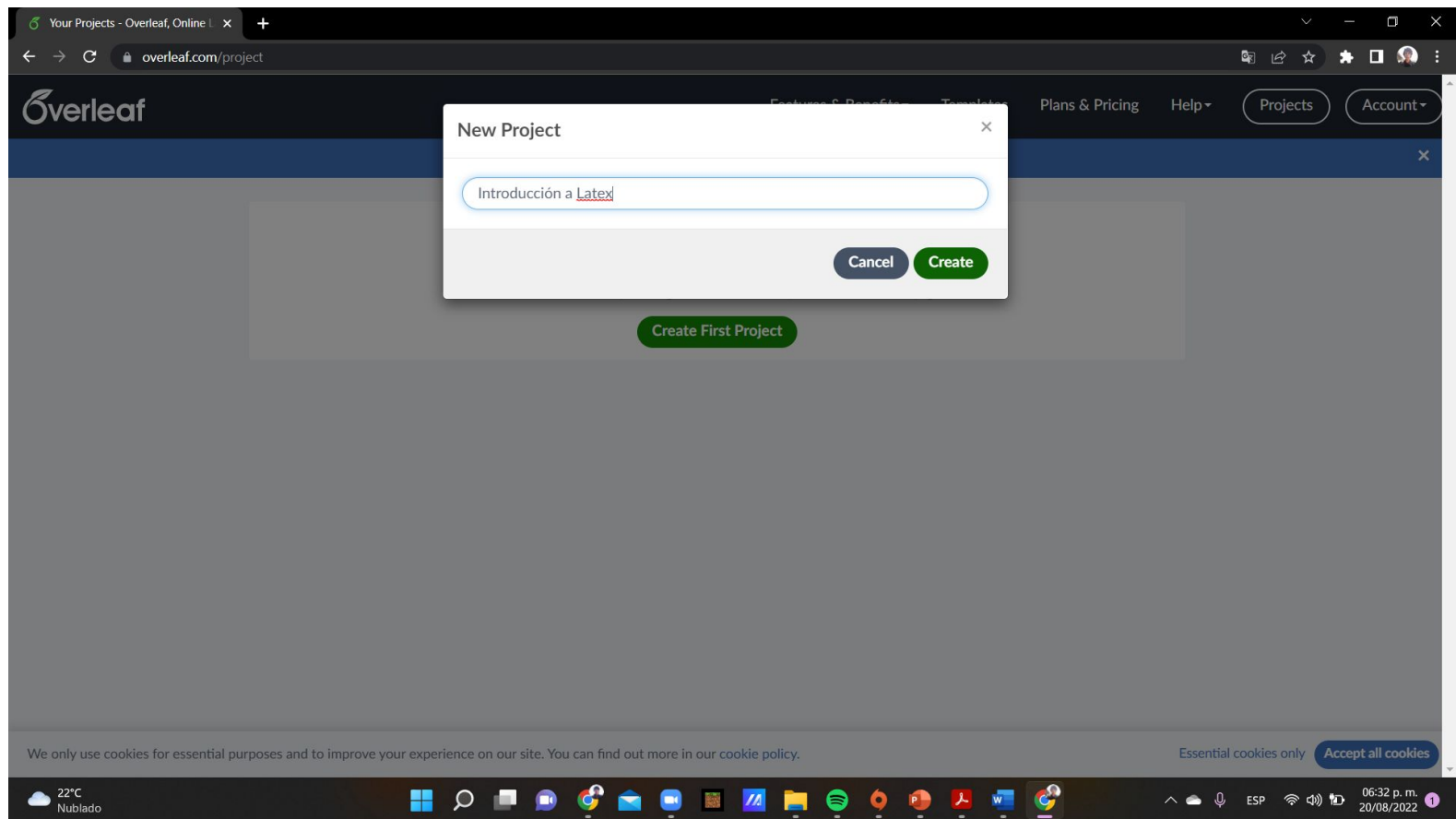
Essential cookies only Accept all cookies

https://www.overleaf.com/project#

22°C Nublado

06:30 p. m. 20/08/2022

Elegimos nombre que deseemos



Menu

Upgrade

Introducción Latex

Review

Share

Submit

History

Layout

Chat

Source

Rich Text

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Recompile

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📥

main.tex

1 \documentclass{article}

2 \usepackage[utf8]{inputenc}

3

4 \title{Introducción Latex}

5 \author{Omar Montoya Trejo}

6 \date{August 2022}

7

8 \begin{document}

9

10 \maketitle

11

12 Introduction

13

14 \end{document}

15

File outline

Introduction

→

←

→

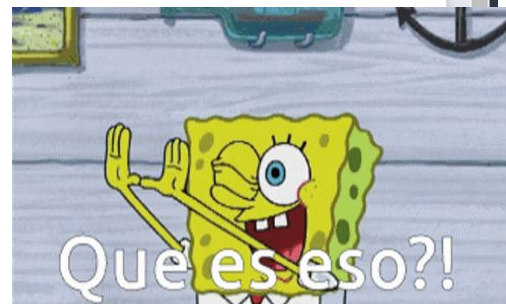
←

Introducción Latex

Omar Montoya Trejo

August 2022

1 Introduction



Archivos
internos

Apartados del
editor

Editor de código

Visualización del
documento

The screenshot shows a LaTeX editor interface with a dark theme. The top bar contains a 'Menu' icon, an 'Upgrade' button, the title 'Introducción Latex', and several utility buttons: 'Review', 'Share', 'Submit', 'History', and 'Layout'. Below the top bar is a secondary toolbar with icons for file operations, a 'Source' tab, a 'Rich Text' tab, a set of formatting buttons (bold, italic, underline, list, link, math, etc.), a 'Recompile' button, and icons for saving and printing.

The interface is divided into three main vertical panels:

- Left Panel (File explorer):** Displays a file tree with 'main.tex' selected. Below it is a 'File outline' section showing 'Introduction'.
- Middle Panel (Source code editor):** Displays the LaTeX source code for 'main.tex'. The code includes document class, package, title, author, date, and a section titled 'Introduction'. Line numbers 1 through 15 are visible on the left side of the code area.
- Right Panel (Document preview):** Displays the rendered output of the LaTeX code. It shows the title 'Introducción Latex', the author 'Omar Montoya Trejo', the date 'August 2022', and a section header '1 Introduction'.

The screenshot shows the LaTeX editor interface. The top bar includes a 'Menu' icon, a home icon, an 'Upgrade' button, and the title 'Introducción Latex'. On the right, there are icons for 'Review', 'Share', 'Submit', 'History', 'Layout', and 'Chat'. Below the top bar, there are tabs for 'Source' and 'Rich Text', and a 'Recompile' button. The left sidebar shows a file explorer with 'main.tex' and a 'File outline' section with 'Introduction'. The main editor area displays the source code for 'main.tex' with line numbers 1 to 15. The code includes document class, package, title, author, date, and section commands. To the right of the code, there is a diagram showing the workflow: 'Datos de archivo' (File data) leads to 'Compilador' (Compiler), which leads to 'Introducción Latex' (the compiled PDF). The PDF preview shows the title 'Introducción Latex', the author 'Omar Montoya Trejo', the date 'August 2022', and the section '1 Introduction'. A red arrow points from the 'Recompile' button to the PDF preview, with the text 'Descarga la visualización PDF' (Download the PDF visualization) next to it.

```
1 \documentclass{article}
2 \usepackage[utf8]{inputenc}
3
4 \title{Introducción Latex}
5 \author{Omar Montoya Trejo}
6 \date{August 2022}
7
8 \begin{document}
9
10 \maketitle
11
12 \section{Introduction}
13
14 \end{document}
15
```

Introducción Latex

Omar Montoya Trejo

August 2022

1 Introduction

Descarga la visualización PDF

Visualización de código.

- Source: Código fuente o base
- Rich Text: Texto

The screenshot shows the LaTeX editor interface in Rich Text mode. The top bar includes a 'Menu' icon, a home icon, an 'Upgrade' button, and the title 'Introducción Latex'. On the right, there are icons for 'Review', 'Share', 'Submit', 'History', 'Layout', and 'Chat'. Below the top bar, there are tabs for 'Source' and 'Rich Text', and a 'Recompile' button. The left sidebar shows a file explorer with 'main.tex' and a 'File outline' section with 'Introduction'. The main editor area displays the source code for 'main.tex' with line numbers 1 to 15. The code includes document class, package, title, author, date, and section commands. The text is formatted in Rich Text, with the title 'Introducción Latex' in bold, the author 'Omar Montoya Trejo' in italic, and the date 'August 2022' in normal. The section '1 Introduction' is also in bold. The code is color-coded: \documentclass is blue, \usepackage is green, \title is blue, \author is green, \date is blue, \begin is blue, \maketitle is green, \section is blue, and \end is blue.

```
1 \documentclass{article}
2 \usepackage[utf8]{inputenc}
3
4 \title{Introducción Latex}
5 \author{Omar Montoya Trejo}
6 \date{August 2022}
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8 \begin{document}
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Introducción Latex

Omar Montoya Trejo

August 2022

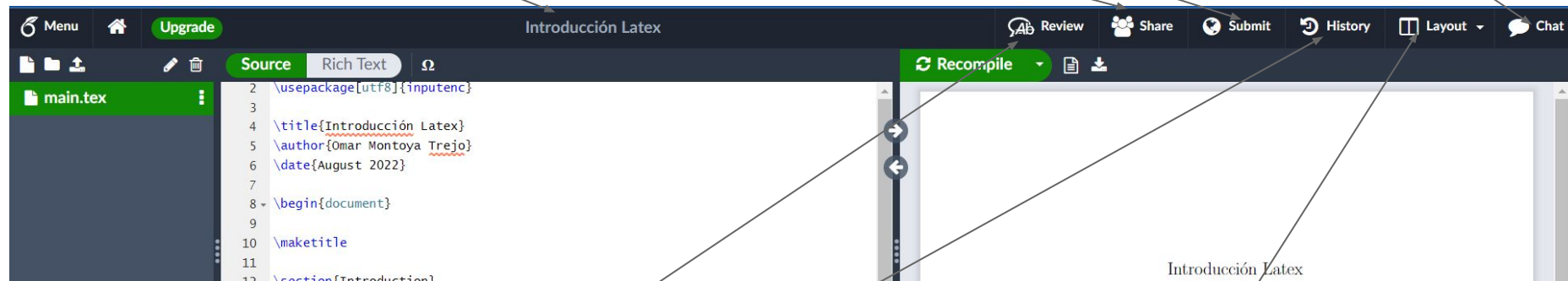
1 Introduction

Título

Chat: chat con colaboradores

Share: Documentos
compartidos

Submit: Sube el
esqueleto a la web



Review: Notas o
comentarios

History: Historial
de Modificaciones

Layout: interfaz gráfica parte en
código o en documento de
visualización (.pdf)

duplicar proyecto

Descargar elementos interno utilizados(imágenes
archivos de complementarios EL CÓDIGO “.TEX”)

Overleaf

Features & Benefits

Templates

Planes y precios

Ayuda

Proyectos

Cuenta

Nuevo proyecto

Buscar proyectos...

You're on the free plan

Upgrade

Todos los proyectos

Tus proyectos









































Compartidos contigo

Archived Projects

Trashed Projects

TAGS/FOLDERS

+ Nueva carpeta

<input type="checkbox"/> Título	Propietario	Última modificación	Acciones
<input type="checkbox"/> Práctica2_LabContempol	claudia.e.p.m	3 days ago by You	   
<input type="checkbox"/> Ejemplo	You	4 days ago by You	   
<input type="checkbox"/> Computacion	tostadagalactica60	8 days ago by omarmontoya9712	   
<input type="checkbox"/> Actividad complementaria 6	omarmontoya9712	12 days ago by omarmontoya9712	   
<input type="checkbox"/> Stefan-Boltzmann	You	a month ago by omarmontoya9712	   
<input type="checkbox"/> Actividad3DMD	You	2 months ago by You	   
<input type="checkbox"/> Actividad 2 DMD	You	2 months ago by You	   
<input type="checkbox"/> Actividad4DMD	You	2 months ago by You	   
<input type="checkbox"/> Plantilla Actividad DMD	You	2 months ago by You	   
<input type="checkbox"/> Actividad DMD	You	2 months ago by You	   

archivar proyecto

dulces gratis

(solo usar una vez finalizado
su proyecto)

EDICIÓN

SOBRE LA EDICIÓN

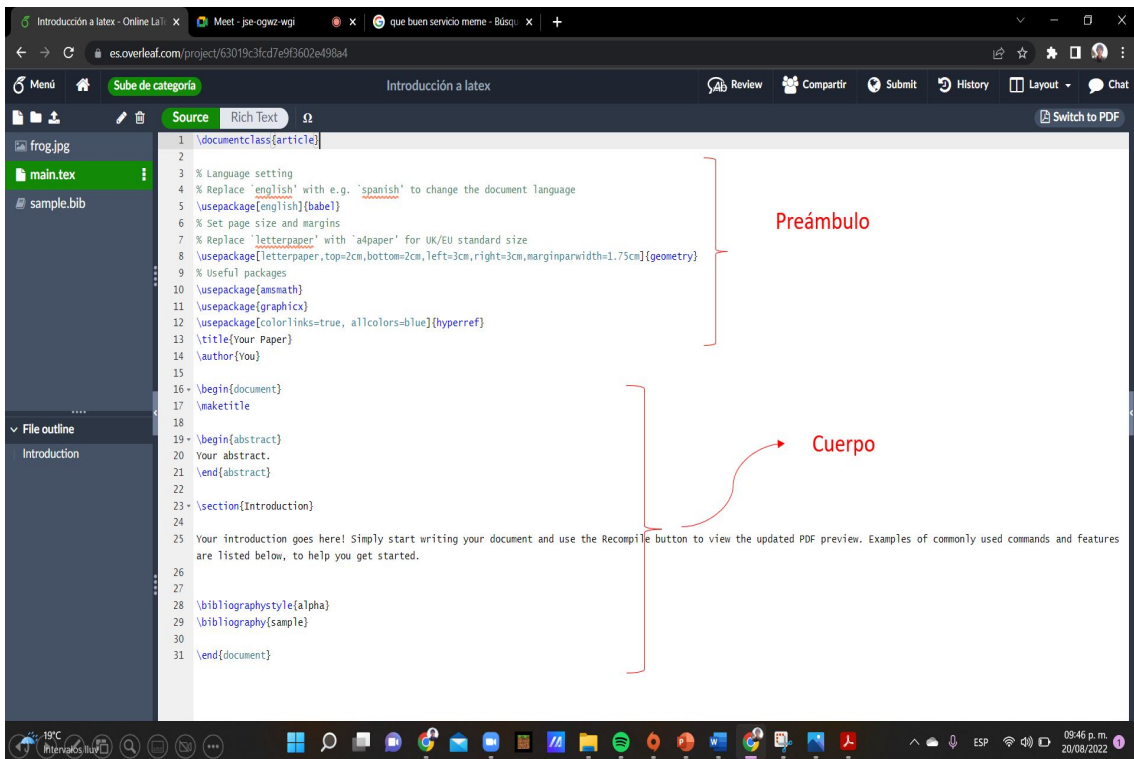
LATEX es un documento con una estructura formada por un preámbulo y un cuerpo.

Preámbulo

- Contiene el tipo de documento, tipo de letra, márgenes, espacio entre líneas, etc.

Cuerpo

- Contiene lo que le da formato al texto.
- Comienza con el comando “`\begin{document}`” y se cierra con el comando “`\end{document}`”.



```
1 \documentclass{article}
2
3 % Language setting
4 % Replace 'english' with e.g. 'spanish' to change the document language
5 \usepackage[english]{babel}
6 % Set page size and margins
7 % Replace 'letterpaper' with 'a4paper' for UK/EU standard size
8 \usepackage[letterpaper,top=2cm,bottom=2cm,left=3cm,right=3cm,marginparwidth=1.75cm]{geometry}
9 % Useful packages
10 \usepackage{amsmath}
11 \usepackage{graphicx}
12 \usepackage{colorlinks=true, allcolors=blue}{hyperref}
13 \title{Your Paper}
14 \author{You}
15
16 \begin{document}
17 \maketitle
18
19 \begin{abstract}
20 Your abstract.
21 \end{abstract}
22
23 \section{Introduction}
24
25 Your introduction goes here! Simply start writing your document and use the Recompile button to view the updated PDF preview. Examples of commonly used commands and features are listed below, to help you get started.
26
27
28 \bibliographystyle{alpha}
29 \bibliography{sample}
30
31 \end{document}
```

Preámbulo

Cuerpo

TIPOS DE DOCUMENTOS

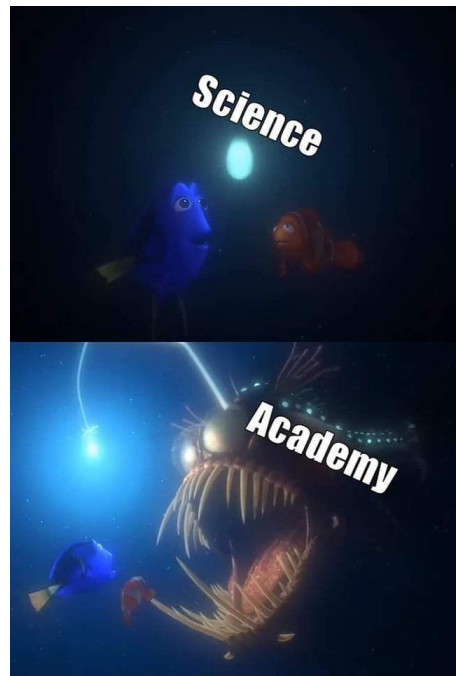
- `article`: Para artículos de revistas científicas, informes breves, invitaciones, tareas...
- `proc`: Para actas, basado en la clase `article`.
- `report`: Para informes más largos que contienen varios capítulos, pequeños libros, tesis...
- `book`: Para libros.
- `beamer`: Para realizar presentaciones (transparencias) estilo Power Point, carteles y folletos

SINTAXIS DE COMANDOS

Los comandos son el pan de cada día en los códigos.

y conservan la siguiente estructura.

```
\nombrede\comando[opciones]{ordenparallamrlo}
```





Ahora si se viene lo chido