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**Reporti: TI-Inspired  $\LaTeX$  Template.**

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LaTeX Template

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## 1. Motivation

At college I read lot of documents about electronics. One of my favorites was *Op Amps for everyone* from Texas Instruments (TI). If you take a moment to analyse the documents in the `TI_Examples` folder from this repository, you will agree with me that they are really well done, with great content and a nice design. So, after some time, I found free time to write a  $\text{\LaTeX}$  template. To be honest with you, I don't use  $\text{\LaTeX}$  in my company, and I am not sure if it's used anywhere else, but maybe I or future generations will have to write lab reports or notes for some crazy school project. :D

So, here is the first version of Reporti, a Texas Instruments-inspired  $\text{\LaTeX}$  template for you all.

 <b>RHYLOO SOLUTIONS</b>		<i>README</i> <i>REPORTI_DOC_TEMPLATE_v0.0</i>
<b>Reporti: TI-Inspired <math>\text{\LaTeX}</math> Template.</b>		
<i>Rhyloo - jorge2@uma.es</i>		<i>LaTeX Template</i>
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<small>Just copy it and modify under MIT.  REPORTI_DOC_TEMPLATE_v0.0  Feedback about the documentation.</small>		
		<small>Reporti: TI-Inspired <math>\text{\LaTeX}</math> Template. 1</small>

## Warning

I had the great idea of use the template for self documentation and I like to write in org-mode because my website run under it. So I can leverage this file for my website.

To sum-up this README file has the full package inside thanks to org-babel, it works like jupyter notebooks but for any language (LaTeX, C, HTML and obviously python too).

So sorry if it is a mesh on github, I recommend you read README.pdf

## 2. Features

### 2.1. Cover page

Just trying to keep it simple. A .cls file based on report class.

About features, the cover can be customize with the next commands: Check 2-1.

```
\documentclass[draft]{reporti}
\cover[width=1.35\textwidth][continue]
\type{Name of doc type}
\code{Project Number/Code} % For more info. Look for naming conventions
\titulo{Project title}
\autor{Author}
\subtitulo{Subtitle}
\resumen{Summary}
\notes{Some notes in Cover}
\contact{Contact footnote}
```

Code 2-1.: Control commands for the template

### 2.2. Table

Table 2-1: Changelog

Version	Description	Author
v0.0	Initial release	Rhyloo

### 2.3. Images



Figure 2-1: Rhyloo Solutions's logo

### 3. About images

The file `Logo-EII-horizontal.pdf` doesn't have any type of LICENSE on the [web](#). As master's student I can use, maybe you don't, be careful with it.

I am really interested in naming conventions applied to projects. I think is the first part of a good story, I define two names the first is common use and the second is like a code, i.e Fat-Man is the bomb, but if I said Fat-Man-DOC-123HAJK123

Do you have one for owns?? Explain in comments and discuss the best :D

Examples:

- Texas Instruments have names like: TAS5518-5261K2EVM. According to Deepseek
  - TAS: Indicates a Texas Instruments Audio Solution
  - 5518: The specific model number of the IC.
  - 5261: A code unique to the EVM design
  - K2: Likely denotes a revision or variant of the EVM
  - EVM: Standard suffix for Evaluation Module

IMO is the first part of a good story like "MarkII" or "Apollo"

## 4. About document class

```
\NeedsTeXFormat{LaTeX2e}
\ProvidesClass{reporti}[Template LaTeX based on Texas Instruments note application documentation.]
\LoadClass[10pt, a4paper, twoside]{article}

\DeclareOption{draft}{
  \PassOptionsToPackage{draft}{graphicx}
  \AtEndOfClass{\usepackage{draftwatermark}\SetWatermarkText{DRAFT}}
}
\DeclareOption*{\PassOptionsToClass{\CurrentOption}{article}}
\ProcessOptions\relax
```

### 4.1. Packages

I added package geometry because I need to config headheight, and page geometry:

```
\RequirePackage{geometry}           % Configuración de márgenes
\setlength{\headheight}{50pt} % 32.05278pt mínimo requerido + margen de seguridad
\geometry{top=3cm, bottom=2.5cm, left=1.83cm, right=1.83cm, footskip=1.2cm}
```

Encabezados/pies de página. I defined two styles.

1. mainstyle: Used for full document elaboration
2. tocstyle: Used by tocs.

```
\RequirePackage{fancyhdr}
\fancypagestyle{mainstyle}{
  \fancyhf{}
  \renewcommand{\headrulewidth}{2pt}
  \renewcommand{\footrulewidth}{1.5pt}
  \ifdefined\@logo{\%
    \fancyhead[RE,LO]{\includegraphics[height=2em]{\@logo}\par
      \href{www.rhyloo.com}{www.rhyloo.com}\par\par}
  }
  \fancyhead[LE,RO]{\nouppercase{\rightmark}}
  \fancyfoot[LE]{\fontsize{8}{35}\selectfont \thepage \hspace{0.8cm} \itshape\@title}
  \ifdefined\@contact{\fancyfoot[RE,LO]{\fontsize{8}{35}\selectfont \ifdefined\@projectcode{\@projectcode}{\@projectcode}\itshape\@contact}
  }
  \fancyfoot[RO]{\fontsize{8}{35}\selectfont \itshape\@title \hspace{0.8cm} \thepage}
}

\fancypagestyle{tocstyle}{
  \fancyhf{}
```

```

\renewcommand{\headrulewidth}{2pt}
\renewcommand{\footrulewidth}{1.5pt}
\ifdefined{\@logo}{\%
  \fancyhead[RE,LO]{\includegraphics[height=2em]{\@logo}\par
    \href{www.rhyloo.com}{www.rhyloo.com}}
}
\fancyhead[LE,RO]{}
\fancyfoot[LE]{\fontsize{8}{35}\selectfont \thepage \hspace{0.8cm} \itshape\@title}
\ifdefined{\@contact}{\fancyfoot[RE,LO]{\fontsize{8}{35}\selectfont \ifdefined{\@projectcode}{\@projectcode}{\@projectcode}\itshape\@contact}
}
\fancyfoot[RO]{\fontsize{8}{35}\selectfont \itshape\@title \hspace{0.8cm} \thepage}
}

\RequirePackage{xparse}           % Para comandos avanzados

\RequirePackage{xcolor}           % Manejo de colores
\RequirePackage{titlesec}         % Estilos de secciones
\RequirePackage{graphicx}         % Manejo de imágenes
\RequirePackage[english]{babel}   % Localización

\RequirePackage{hyperref}         % Hipervínculos
\hypersetup{
  colorlinks = true,
  linkcolor = blue!70!black,
  urlcolor = blue!70!black,
  citecolor = green!60!black
}

\RequirePackage{fontspec}         % Fuentes modernas
\setmainfont{FreeSans}

\RequirePackage[export]{adjustbox}
\RequirePackage{datetime2}       % Manejo de fechas profesional

\RequirePackage{etoolbox}        % Utilidades de macros
\RequirePackage{tabularx}
\RequirePackage{float}
\RequirePackage{booktabs}
\RequirePackage{multirow}
\RequirePackage[titles]{tocloft}
\RequirePackage[tableposition=above]{caption}
\RequirePackage[figure,table]{totalcount}

```

```
\RequirePackage{xstring} % Add near the top of the file
\RequirePackage{underscore}
\RequirePackage{longtable}
\RequirePackage{wrapfig}
\RequirePackage{rotating}
\RequirePackage[normalem]{ulem}
\RequirePackage{amsmath}
\RequirePackage{amssymb}
\RequirePackage{capt-of}

\RequirePackage[newfloat,outputdir=./build]{minted}
\usemintedstyle{emacs}
\newlistof{listing}{lol}{\hfill\bfseries\normalsize List of codes\hfill}
\RequirePackage{caption}
\newenvironment{code}{\captionsetup{type=listing}}{}
\SetupFloatingEnvironment{listing}{%
  name={Code},
  fileext=lol}
\renewcommand{\cftlistingpresnum}{Code~}
\renewcommand{\thelisting}{\arabic{section}-\arabic{listing}.}
\setlength{\cftlistingnumwidth}{5em}

\RequirePackage[most]{tcolorbox}
% Configuración de datetime2 para español
\DTMsetup{useregional=numeric}

\graphicspath{{figures/}{figures/logo/}}
```

## 4.2. Document Commands

```
\newcommand{\@metadata}{} % Registro de metadatos

\NewDocumentCommand{\autor}{m}{%
  \def\@autor{#1}%
  \listadd{\@metadata}{Autor: #1}%
}
\NewDocumentCommand{\fecha}{0{\DTMtoday}}{%
  \def\@fecha{#1}%
  \listadd{\@metadata}{Fecha: #1}%
}
\NewDocumentCommand{\summary}{m}{%
  \def\@summary{#1}%
  \ifx\@summary\@empty\else
    \gappto\@afterabstract{\@printsummary}%
  \fi
}
```

## About document class

---

```

}
\NewDocumentCommand{\subtitle}{m}{%
  \def\@subtitle{#1}%
  \listadd{\@metadata}{Subtítulo: #1}% % Opcional: para mostrar en metadata
}
\NewDocumentCommand{\type}{m}{%
  \def\@type{#1}%
  \listadd{\@metadata}{Type: #1}% % Opcional: para mostrar en metadata
}

\NewDocumentCommand{\projectcode}{m}{%
  \def\@projectcode{#1}%
  \listadd{\@metadata}{Projectcode: #1}% % Opcional: para mostrar en metadata
}
\NewDocumentCommand{\notes}{m}{%
  \def\@notes{#1}%
  \listadd{\@metadata}{Notes: #1}% % Opcional: para mostrar en metadata
}
\NewDocumentCommand{\contact}{m}{%
  \def\@contact{#1}%
  \listadd{\@metadata}{Contact: #1}% % Opcional: para mostrar en metadata
}
\NewDocumentCommand{\toc}{m}{%
  \def\@toc{#1}%
  \listadd{\@metadata}{TOC: #1}% % Opcional: para mostrar en metadata
}
\NewDocumentCommand{\logo}{m}{%
  \def\@logo{#1}%
  \listadd{\@metadata}{LOGO: #1}% % Opcional: para mostrar en metadata
}

\renewcommand{\sectionmark}[1]{\markright{#1}}

% --- Redefinir marcas para ignorar subsecciones ---
\renewcommand{\sectionmark}[1]{\markright{#1}} % Actualiza solo \rightmark
\renewcommand{\subsectionmark}[1]{} % Subsecciones no modifican los headers

\pagestyle{mainstyle}

\fancypagestyle{titlepagestyle}{
  \renewcommand{\headrulewidth}{0pt}
  \renewcommand{\footrulewidth}{1.5pt}

```



```

\fancyhf{}
\fancyfoot[LE]{\fontsize{8}{35}\selectfont \thepage \hspace{0.8cm} \itshape\@title}}
\ifdefvoid{\@contact}{ \fancyfoot[RE,LO]{\fontsize{8}{35}\selectfont \ifdefvoid{\@projectcode}{\@projectcode}\@projectcode\itshape\@title}}
\ifdefvoid{\@projectcode}{ \fancyfoot[RE,LO]{\fontsize{8}{35}\selectfont \ifdefvoid{\@projectcode}{\@projectcode}\@projectcode\itshape\@title}}
\ifdefvoid{\@projectcode}{ \fancyfoot[RO]{\fontsize{8}{35}\selectfont \itshape\@title \hspace{0.8cm} \normalfont\thepage}}
}

% =====
% 4. Estilos de Títulos
% =====

\setlength{\voffset}{10pt} % Ajusta según necesidad para evitar warnings
\setlength{\headsep}{5pt} % Ajusta según necesidad para evitar warnings

% Definir formato de títulos
\titleformat{\section}
{\large\bfseries} % Formato del texto
{\thesection.\hspace{2em}} % Etiqueta: Número + 4em de espacio
{0pt} % Separación entre etiqueta y título
{} % Código antes del título

\titleformat{\subsection}
{\large\itshape\bfseries}
{\thesubsection.\hspace{1.25em}} % 3em de espacio
{0pt}
{}

\titleformat{\subsubsection}
{\bfseries}
{\hspace{3.5em}} % 2em de espacio
{0pt}
{}

% Ajustar espaciado vertical (opcional)
\titlespacing{\section}{0pt}{12pt}{6pt}
\titlespacing{\subsection}{0pt}{12pt}{6pt}
\titlespacing{\subsubsection}{0pt}{12pt}{6pt}

\newlength{\originalparskip}
% =====
% 6. Cover
% =====
\NewDocumentCommand{\cover}{0{width=0.8\textwidth} 0{}}{%
  \begingroup % Grupo local para cambios de espaciado

```

```

% Save the original parskip value
\setlength{\originalparskip}{\parskip}
\renewcommand{\baselinestretch}{0.4} % Ajuste principal (20% más de espacio)
\renewcommand{\parskip}{\originalparskip} % Ajuste principal (20% más de espacio)
\begin{titlepage}
\thispagestyle{titlepagestyle} % <--- Aplica el footer
% -----
% Cabecera con logo y datos institucionales
% -----
\ifdefined{\@logo}
    {\vspace*{4em}}{}
\noindent\begin{minipage}[t]{0.4\textwidth}
\ifdefined{\@logo}
    {}
    {\includegraphics[#1]{\@logo}}
%% \vspace{-1.5\baselineskip} % Alineación precisa
\end{minipage}%
\hfill
\begin{minipage}[t]{0.6\textwidth}
    \vspace{-2\baselineskip} % Alineación precisa
    \raggedleft
    \ifdefined{\@type}{\fontsize{14}{35}\selectfont\itshape\@type}{\par}
    \ifdefined{\@projectcode}{\fontsize{9}{35}\selectfont\itshape\@projectcode}{\par}

\end{minipage}

\vspace{0.5\baselineskip} % Alineación precisa

\begin{flushright}
    {\fontsize{18}{35}\selectfont\bfseries\itshape\@title}
\end{flushright}
\vspace*{-1\baselineskip} % Reduce espacio posterior
    {\rule{\textwidth}{2pt}}

    \noindent\begin{minipage}{0.7\textwidth}
        \raggedright
        \ifdefined{\@author}{%
            {\fontsize{10}{35}\selectfont\itshape\@author}
        }{}
    \end{minipage}
    \hfill
    \begin{minipage}{0.25\textwidth}
        \raggedleft
        \ifdefined{\@subtitle}{%
            {\fontsize{10}{35}\selectfont\itshape\@subtitle}
        }{}
    \end{minipage}

```

---

```

% -----
% Summary condicional
% -----
\ifdefined\@summary{}{%
  \vspace{0.75cm}

  \hspace{1.75cm}
  \begin{minipage}{13.6cm}
    \begin{center}
      \noindent{\bfseries ABSTRACT}
    \end{center}
    {\fontsize{10}{35}\selectfont\@summary}\par
    {\rule{\textwidth}{1pt}}
  \end{minipage}
}
\ifstrequal{#2}{continue}{
  \tocloftpagestyle{titlepagestyle}
  \vspace{0.75cm}

  \hspace{1.75cm}
  \begin{minipage}{13.6cm}
    {\fontsize{9}{35}\selectfont
      \tableofcontents
      \vspace{1em}
      \iftotalfigures
      \listoffigures
      \fi
      \vspace{1em}
      \iftotaltables
      \listoftables
      \fi
      \iftotal listings
      \listoflistings
      \fi}
    \end{minipage}}{}
\vfill
\ifdefined\@notes{}{%
  \noindent\raggedright{\fontsize{8}{35}\selectfont\@notes\vspace{-1\baselineskip}}}
\end{titlepage}
\endgroup
\clearpage
\pagestyle{mainstyle}
}

\AddToHook{cmd/section/before}{%
  \clearpage
}

```

## About document class

---

```

\tocloftpagestyle{tocstyle}
\setlength{\cftbeforesecskip}{0pt}
\renewcommand{\cftsecleader}{\cftdotfill{\cftdotsep}}
\renewcommand{\cftdotsep}{1}% Default is 4.5

\renewcommand{\cftaftertocitleskip}{2em}
\renewcommand{\cftafterloftitleskip}{2em}
\renewcommand{\cftafterlottitleskip}{2em}

\renewcommand{\cftfigindent}{0pt}
\renewcommand{\cftfigpresnum}{\figurename~}
\renewcommand{\cftfigaftersnum}{.}
\setlength{\cftfignumwidth}{5em}
\renewcommand{\thefigure}{\arabic{section}-\arabic{figure}}
\renewcommand{\cftsecpagefont}{\normalsize}

% =====
% List of Tables Customization
% =====
% 1. Set table numbering format: section-table (e.g., 1-1)
\renewcommand{\thetable}{\arabic{section}-\arabic{table}}

% 2. Configure table entries in List of Tables
\renewcommand{\cfttabindent}{0pt}           % Remove indentation
\renewcommand{\cfttabpresnum}{\tablename~}  % Prefix: "Table "
\renewcommand{\cfttabaftersnum}{.}          % Suffix: "."
\setlength{\cfttabnumwidth}{5em}           % Width for table numbers

% 3. (Optional) Set section page numbers in TOC
\renewcommand{\cftsecpagefont}{\normalsize} % Normal font for section page numbers

\setlength{\parindent}{0pt}
\setlength{\baselineskip}{50pt}
\renewcommand{\baselinestretch}{1.2} % Ajuste principal (20% más de espacio)

\makeatletter
\apptocmd{\@afterheading}{
  \vspace{-0.5\baselineskip}
  \setlength{\parskip}{12pt}
}{\@afterheading}{}
\makeatother

\addto\captionsspanish{%

```

```
\renewcommand{\contentsname}{\hfill\bfseries\normalsize Contenido\hfill}
\renewcommand{\tablename}{Tabla}
\renewcommand{\listfigurename}{\hfill\bfseries\normalsize Lista de figuras\hfill}
\renewcommand{\listtablename}{\hfill\bfseries\normalsize Lista de tablas\hfill}}

\addto\captionsenglish{%
\renewcommand{\contentsname}{\hfill\bfseries\normalsize Content\hfill}
\renewcommand{\tablename}{Table}
\renewcommand{\listfigurename}{\hfill\bfseries\normalsize List of figures\hfill}
\renewcommand{\listtablename}{\hfill\bfseries\normalsize List of tables\hfill}}
```