

# Laboratory Work Report No. 2

## Practical Scientific Writing

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# Information

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## Work Objectives and Tasks

The objective of this laboratory work is to familiarize with the document structure in LaTeX.

**Tasks:** Review and work with the document structure in TexLive:

1. Try adding text to your first document, typesetting and seeing the changes in your PDF.
2. Make some different paragraphs and add variable spaces.
3. Explore how your editor works; click on your source and find how to go to the same line in your PDF.
4. Try adding some hard spaces and see how they influence line-breaking.

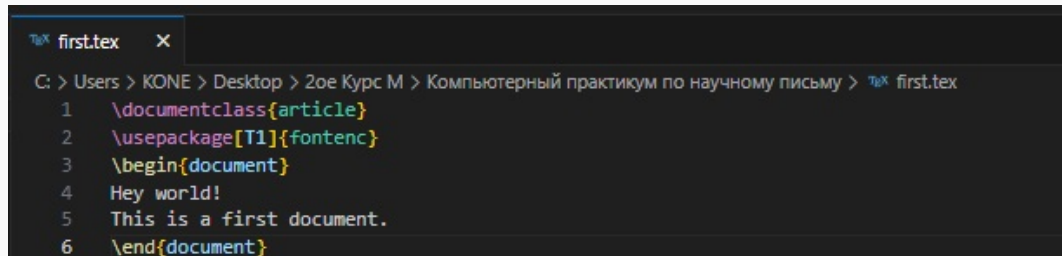
# Theoretical Introduction

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# Basic LaTeX Document Structure

```
\documentclass{article}
\usepackage[T1]{fontenc}
\begin{document}
Hey world!
This is a first document.
\end{document}
```

(see Fig. (**fig:001?**))

A screenshot of a LaTeX editor window titled "TeX first.tex". The window shows the file path "C:\> Users > KONE > Desktop > 2ое Курс М > Компьютерный практикум по научному письму > TeX first.tex". The code is displayed with line numbers 1 through 6, matching the code shown in the previous block. The code is: 1 \documentclass{article}, 2 \usepackage[T1]{fontenc}, 3 \begin{document}, 4 Hey world!, 5 This is a first document., 6 \end{document}.

```
TeX first.tex  X
C:\> Users > KONE > Desktop > 2ое Курс М > Компьютерный практикум по научному письму > TeX first.tex
1  \documentclass{article}
2  \usepackage[T1]{fontenc}
3  \begin{document}
4  Hey world!
5  This is a first document.
6  \end{document}
```

## Compilation Process

(see Fig. (fig:002?))

```
Windows PowerShell
Copyright (C) Microsoft Corporation. Tous droits réservés.

Installez la dernière version de PowerShell pour de nouvelles fonctionnalités et améliorations ! https://aka.ms/PSWindows

PS C:\Users\KONE\Desktop\2oe Курс М\Компьютерный практикум по научному письму> pdflatex first.tex
This is pdfTeX, Version 3.141592653-2.6-1.40.28 (TeX Live 2025) (preloaded format=pdflatex)
 restricted \write18 enabled.
entering extended mode
(./first.tex
LaTeX2e <2025-06-01> patch level 1
L3 programming layer <2025-09-02>
(c:/texlive/2025/texmf-dist/tex/latex/base/article.cls
Document Class: article 2025/01/22 v1.4n Standard LaTeX document class
(c:/texlive/2025/texmf-dist/tex/latex/base/size12.clo))
(c:/texlive/2025/texmf-dist/tex/latex/base/fontenc.sty)
(c:/texlive/2025/texmf-dist/tex/latex/l3backend/l3backend-pdftex.def)
No file first.aux.

[1{c:/texlive/2025/texmf-var/fonts/map/pdftex/updmap/pdftex.map}] (./first.aux)
)
kpathsea: Running mktexpk --mfmode / --bdpi 600 --mag 1+0/600 --dpi 600 ecrm1000

The command name is C:\texlive\2025\bin\windows\mktexpk
mf-nowin.exe --progname=mf --base=mf \mode:=ljfour; \mag:=1+0/600; nonstopmode; input ecrm1000;
This is METAFONT, Version 2.71828182 (TeX Live 2025) (preloaded base=mf)

(c:/texlive/2025/texmf-dist/fonts/source/luantex/ps/ecrm1000.mf
```

## Adding Footnotes and Formatting

```
\documentclass[a4paper,12pt]{article} % The document class with options
% select T1 font encoding: suitable for Western European Latin scripts
\usepackage[T1]{fontenc}
% A comment in the preamble
\begin{document}
% This is a comment
This is a simple
document\footnote{with a footnote}
This is a new paragraph.
\end{document}
```

(see Fig. (**fig:006?**))



# Laboratory Work Execution

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# Task 1: Creating First Document

## Adding Text and Typesetting

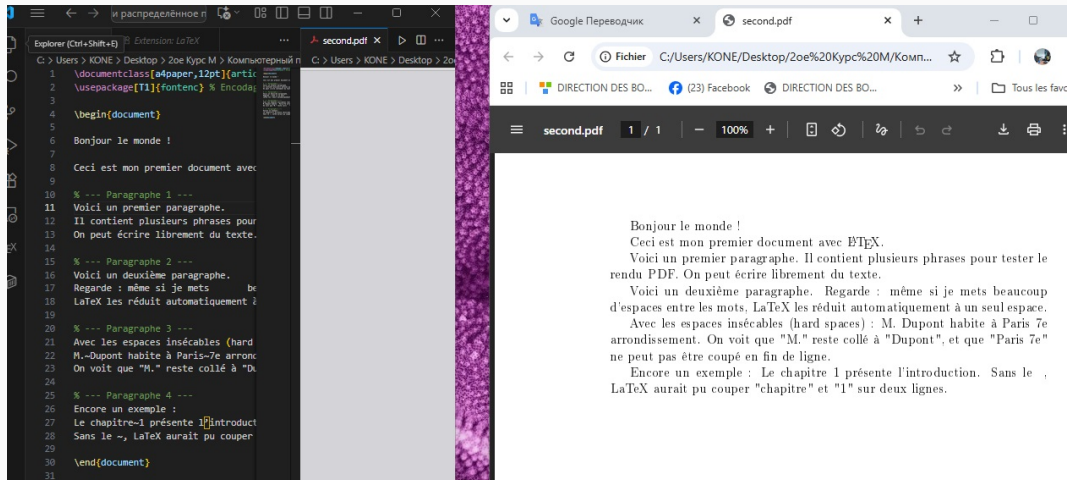
(see Fig. (fig:009?))

```
second.tex X
> Users > KONE > Desktop > 2oe Cours M > Компьютерный практикум по научному письму > second.tex
1 \documentclass[a4paper,12pt]{article} % Classe de document
2 \usepackage[T1]{fontenc} % Encodage de la police
3
4 \begin{document}
5
6 Bonjour le monde !
7
8 Ceci est mon premier document avec \LaTeX.
9
10 % --- Paragraphe 1 ---
11 Voici un premier paragraphe.
12 Il contient plusieurs phrases pour tester le rendu PDF.
13 On peut écrire librement du texte.
14
15 % --- Paragraphe 2 ---
16 Voici un deuxième paragraphe.
17 Regarde : même si je mets beaucoup d'espaces entre les mots,
18 LaTeX les réduit automatiquement à un seul espace.
19
20 % --- Paragraphe 3 ---
21 Avec les espaces insécables (hard spaces) :
22 M.-Dupont habite à Paris~7e arrondissement.
23 On voit que "M." reste collé à "Dupont", et que "Paris 7e" ne peut pas être
```

# Task 2: Paragraphs and Variable Spaces

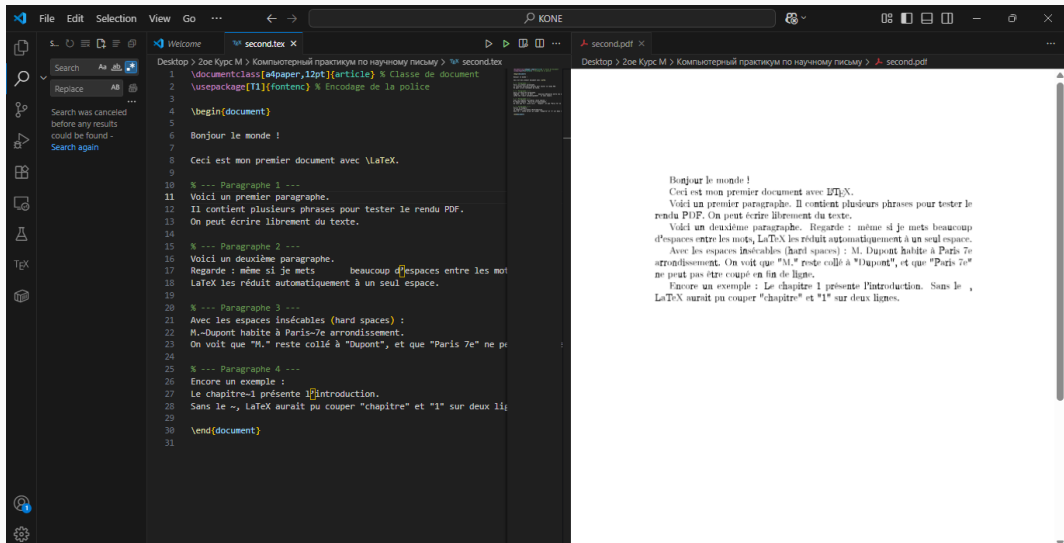
## Creating Different Paragraph Structures

(see Fig. (fig:010?))



# Task 3 & 4: Editor Exploration and Hard Spaces

## Editor Features and Line-breaking Control



## Conclusion

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Thus, the objective of installing TeXlive was achieved, and I became familiar with working with its structure as well as with the LaTeX system. The laboratory work allowed me to practice creating LaTeX documents, understanding paragraph formatting, and using non-breaking spaces to control line-breaking behavior.

**Thank you for your attention**