How to Install LaTeX on WSL

U. Replica

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Abstract

Install LaTeX on WSL and edit it using VS Code. Then take a look at some examples.

1 Install LaTeX Compiler on WSL

1.1 Install texlive-full

$$\underline{\text{sudo}}\ \text{apt install texlive-full} \tag{1}$$

2 Install LaTeX Workshop Extension in VS Code

2.1 Install LaTeX Workshop Extension

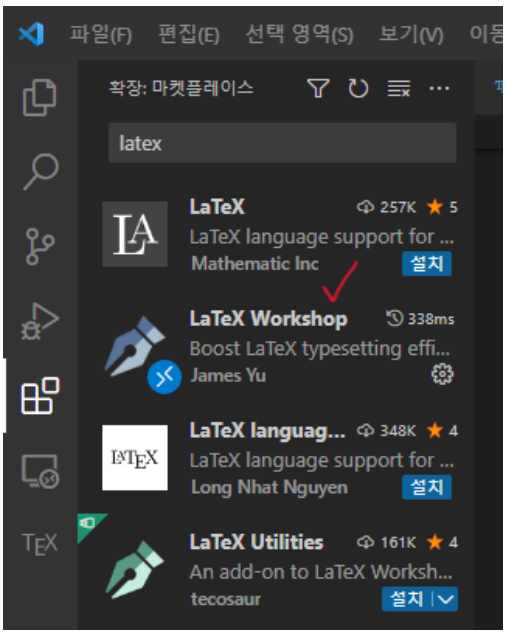

Figure 1: LaTeX Workshop Extension

Just install LaTeX Workshop extension. It will automatically find the latex compiler.

2.2 Change LaTeX Workshop Settings

```
{"name": "lualatexmk",
        "tools": [
        "lualatexmk"
        ]
},
```

Listing 1: LaTeX Workshop Settings

Go to 파일 > 기본 설정 > 설정 > 확장 > Latex > Latex:Recipes. Then add the following sentence 1.

3 LaTeX Examples

3.1 Equation

$$F = ma \tag{2}$$

Force equals mass times acceleration.

$$\begin{aligned} P &= mv \\ E &= mc^2 \end{aligned} \tag{3}$$

Momentum equals mass times velocity. And energy equals mass times the speed of light squared. As you can see at equation(3)

$$\begin{aligned} e^x &= 1 + x + \frac{x^2}{2!} + \frac{x^3}{3!} + \dots \\ &= \sum_{n=0}^{\infty} \frac{x^n}{n!} \end{aligned} \tag{4}$$

$$A = \begin{pmatrix} a & b \\ c & d \end{pmatrix} \tag{5}$$

$$\not{p} = \gamma^\mu p_\mu \tag{6}$$

$$H = \begin{pmatrix} \alpha & 0 & 0 & \\ 0 & \beta & 0 & \dots \\ 0 & 0 & \gamma & \\ \vdots & & & \ddots \end{pmatrix} \tag{7}$$

$$\int_{-\infty}^{\infty} \Gamma \alpha e^{\zeta t/\Sigma} dt^4 \tag{8}$$

3.2 Table

quark	u	s	t	d	c	b
lepton	e	μ	τ	ν_e	ν_μ	ν_τ

Table 1: This is table

3.3 Figure

Figure 2: Wallpaper

3.4 Feynman Diagram [2]

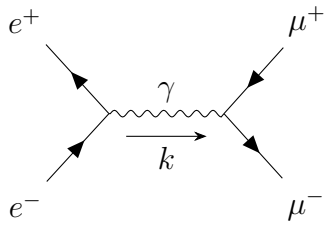

Figure 3: Feynman Diagram

References

[1] *Sample Lab Report for U of R - PHYS 349*, available at `https://www.overleaf.com/latex/templates/sample-lab-report-for-u-of-r-phys-349/pgsyqngcyjxk`.

[2] *TikZ-Feynman Feynman diagrams with TikZ, Version 1.0.0*, available at `https://arxiv.org/ftp/arxiv/papers/1601/1601.05437.pdf`.