

— Jollpi —

A Lightweight, Simple and Reliable Text Editor with Python 3, GTK4 and GtkSourceView 5

Zulfian

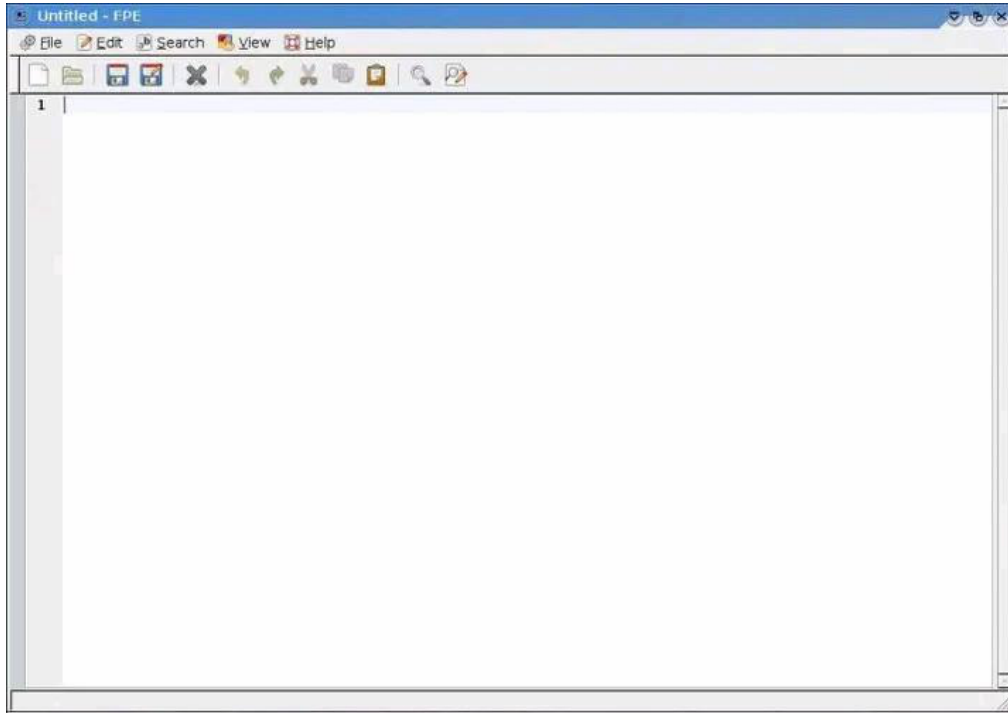
GNOME Asia Summit 2025 — Tokyo, Japan
14 December 2025

About Me

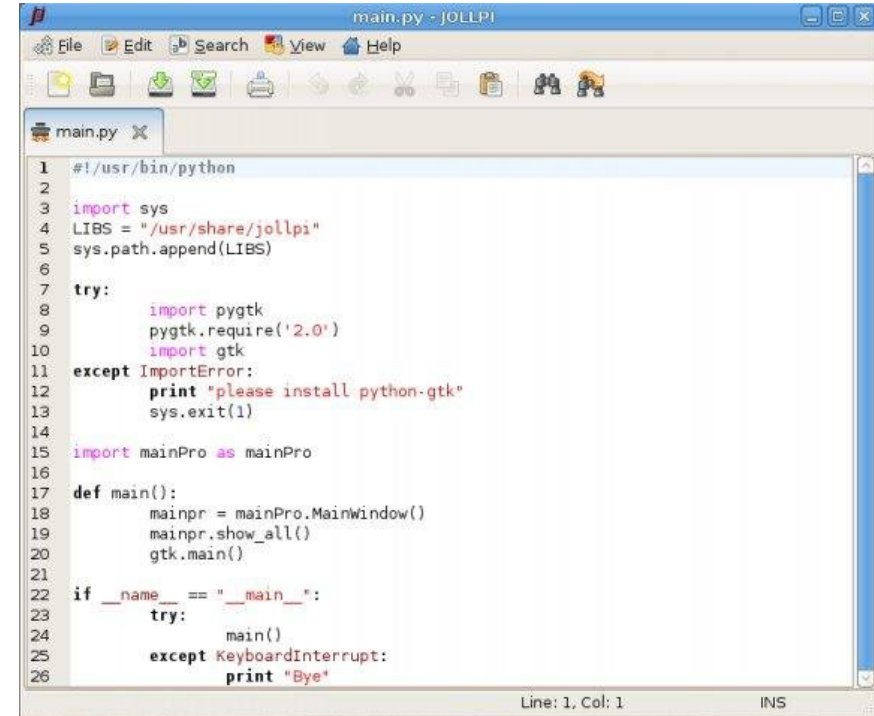


- Python Developer
- Linux user since 2008 (with a very long pause)
- Creator of Jollpi (2010 → rewrite 2025)

Flashback: Jollpi 2010



First prototype

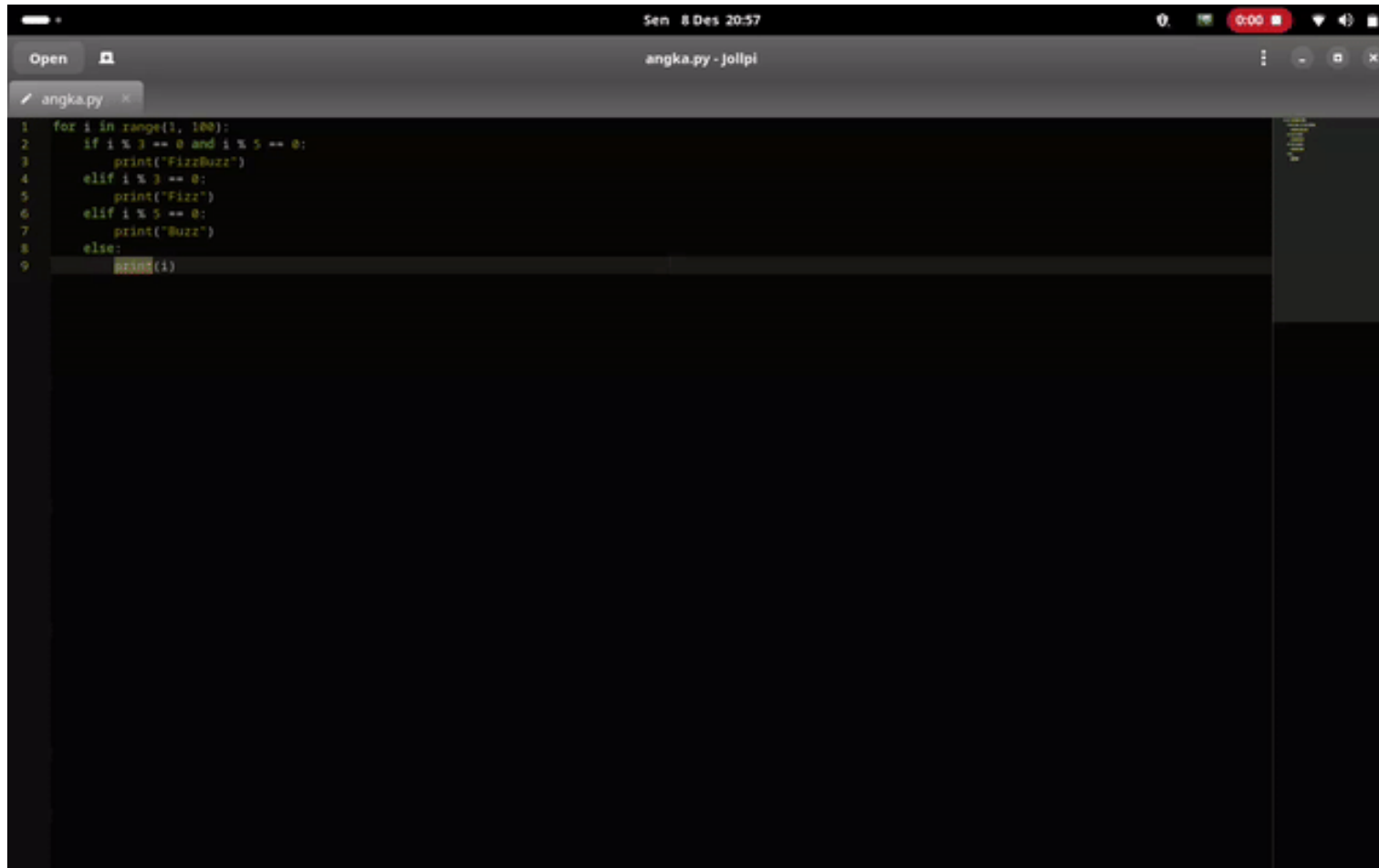


Last stable release

Python 2 — GTK2 — GtkSourceView 2 — Minimal — Multi-tab

- » SourceForge: sourceforge.net/projects/jollpi
- » GitLab: gitlab.com/zulfian1732/jollpi2-legacy

Jollpi 2025 — The Rewrite



The image shows a screenshot of a code editor window. The title bar at the top indicates the file is 'angka.py - Jollpi'. The editor contains a Python script for a FizzBuzz problem. The code is as follows:

```
1 for i in range(1, 100):
2     if i % 3 == 0 and i % 5 == 0:
3         print("FizzBuzz")
4     elif i % 3 == 0:
5         print("Fizz")
6     elif i % 5 == 0:
7         print("Buzz")
8     else:
9         print(i)
```

Why Rewrite ?

- ✓ Python 2 is end-of-life
- ✓ GTK4 is a completely different world
- ✓ GtkSourceView 5 introduces a new approach
- ✓ User expectations changed
- ✓ Keep it light and minimal

Philosophy

- ✓ Simple and responsive — even with large files
- ✓ Only core components: Python, GTK4, GtkSourceView5
- ✓ Maintainable codebase
- ✓ Typing should feel effortless

Architecture

Python 3



GTK4 (GObject, GDK, GLib)



GtkSourceView 5

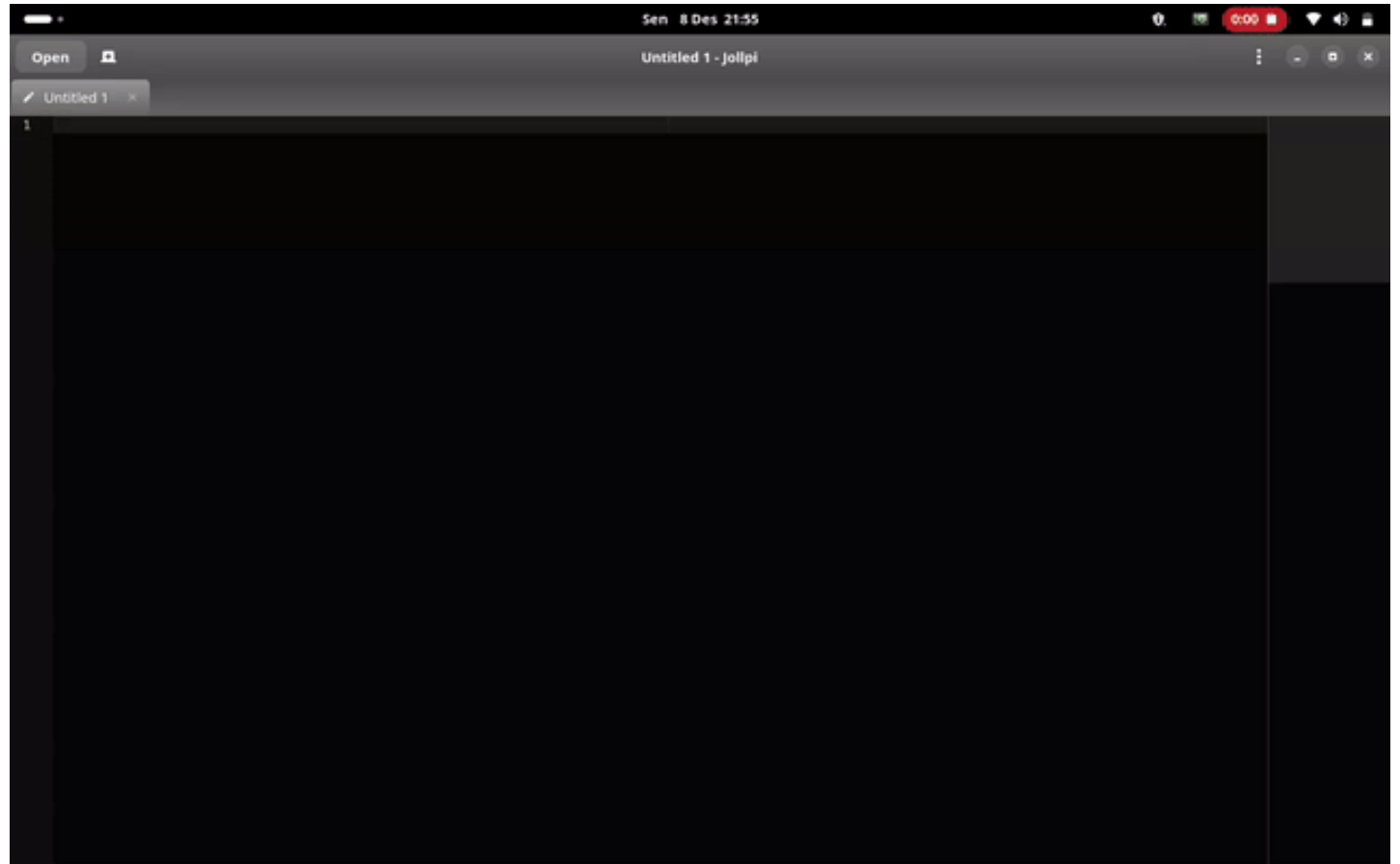


Gio File Handling + Monitoring

Async Loading

- ✓ Uses GtkSourceView.FileLoader
- ✓ Fully cancellable
- ✓ UI stays responsive while loading

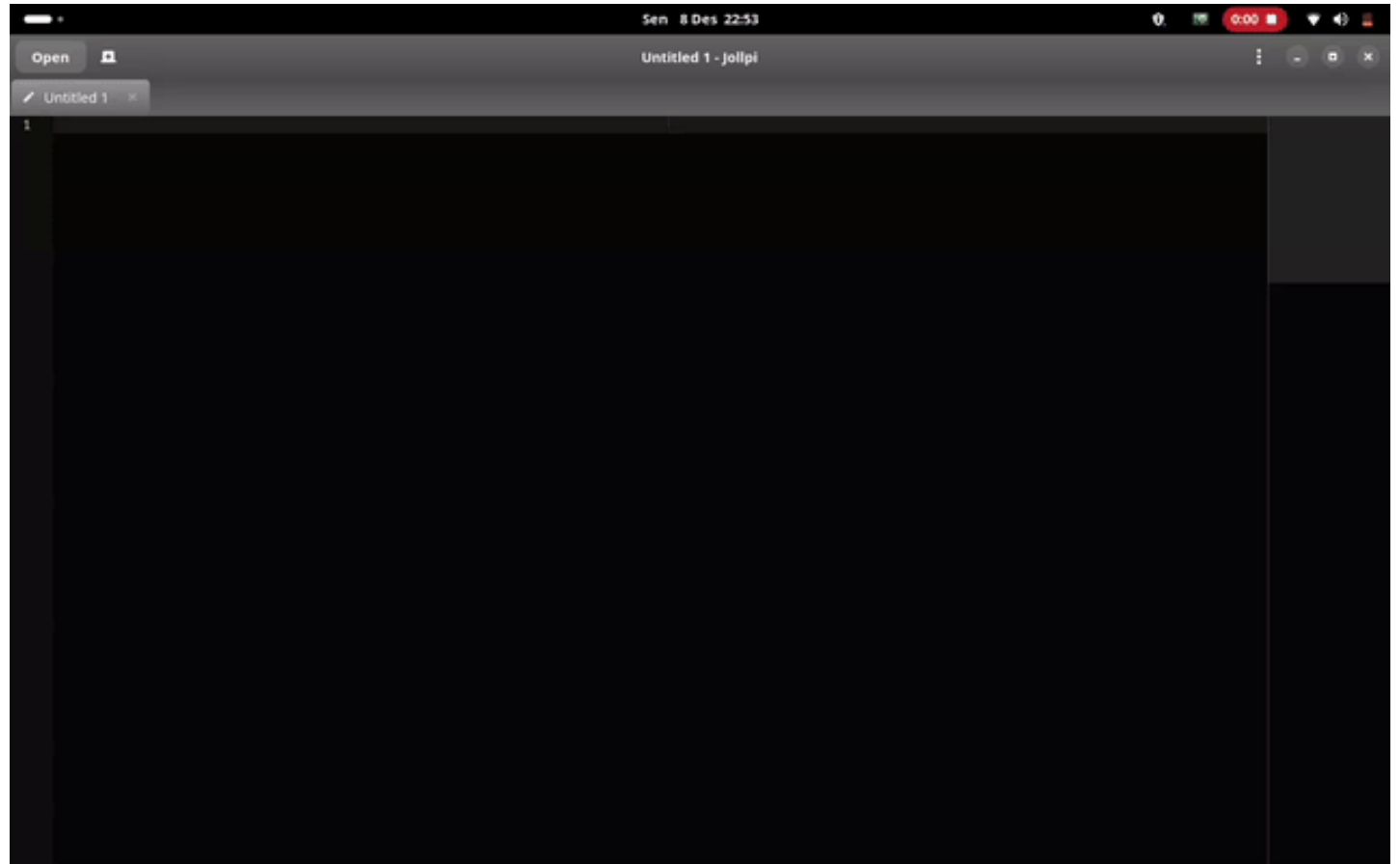
```
loader = GtkSource.FileLoader.new(  
    buffer,  
    src_file  
)  
loader.load_async(  
    priority,  
    cancellable,  
    None,  
    None,  
    on_loaded,  
    ()  
)
```



Async Search

- ✓ Async search using SearchContext
- ✓ Live result count
- ✓ Replace step-by-step without UI freezing

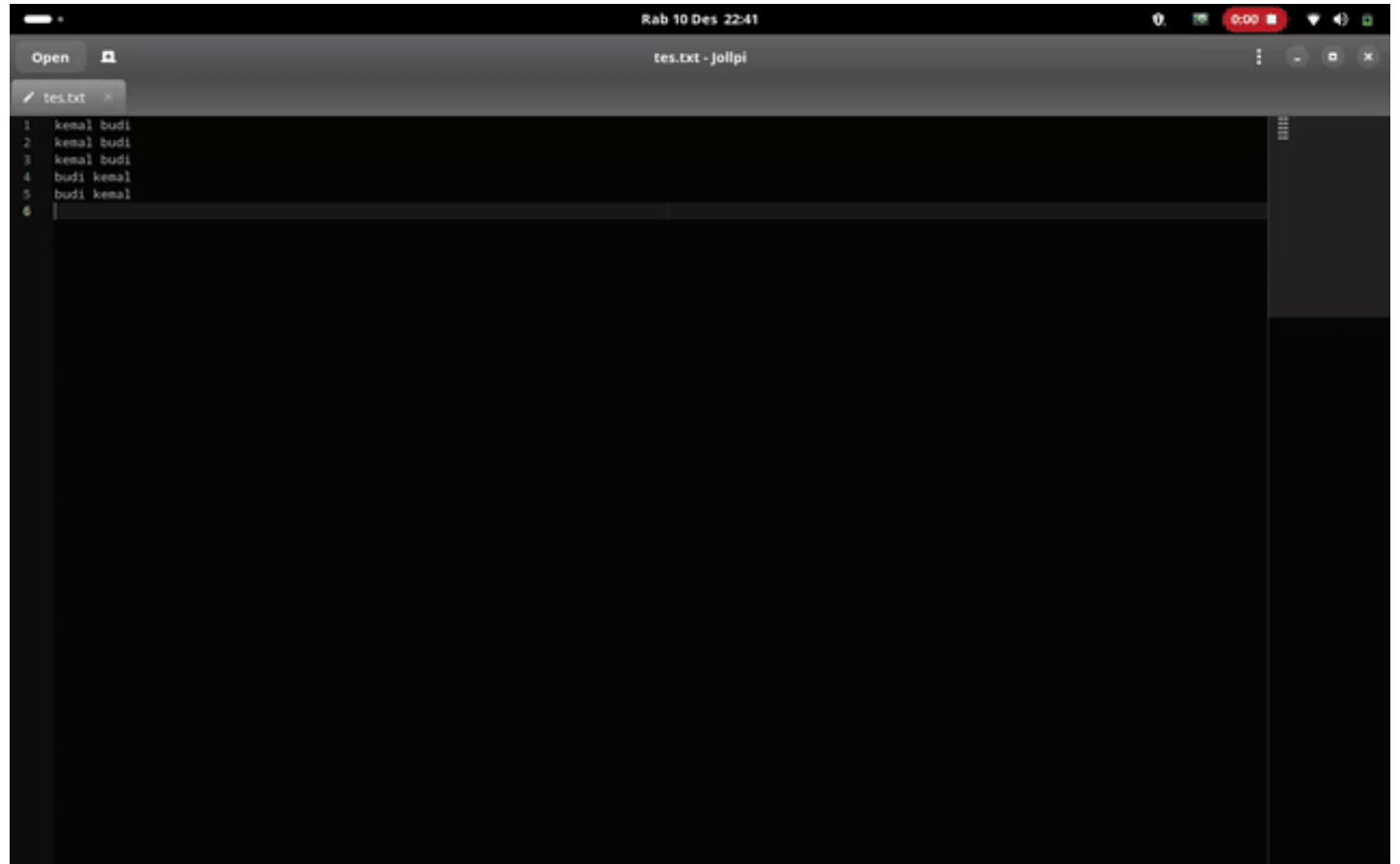
```
ctx = GtkSource.SearchContext.new(  
    buffer,  
    GtkSource.SearchSettings()  
)  
ctx.forward_async(  
    iter,  
    cancellable,  
    on_match,  
    None  
)
```



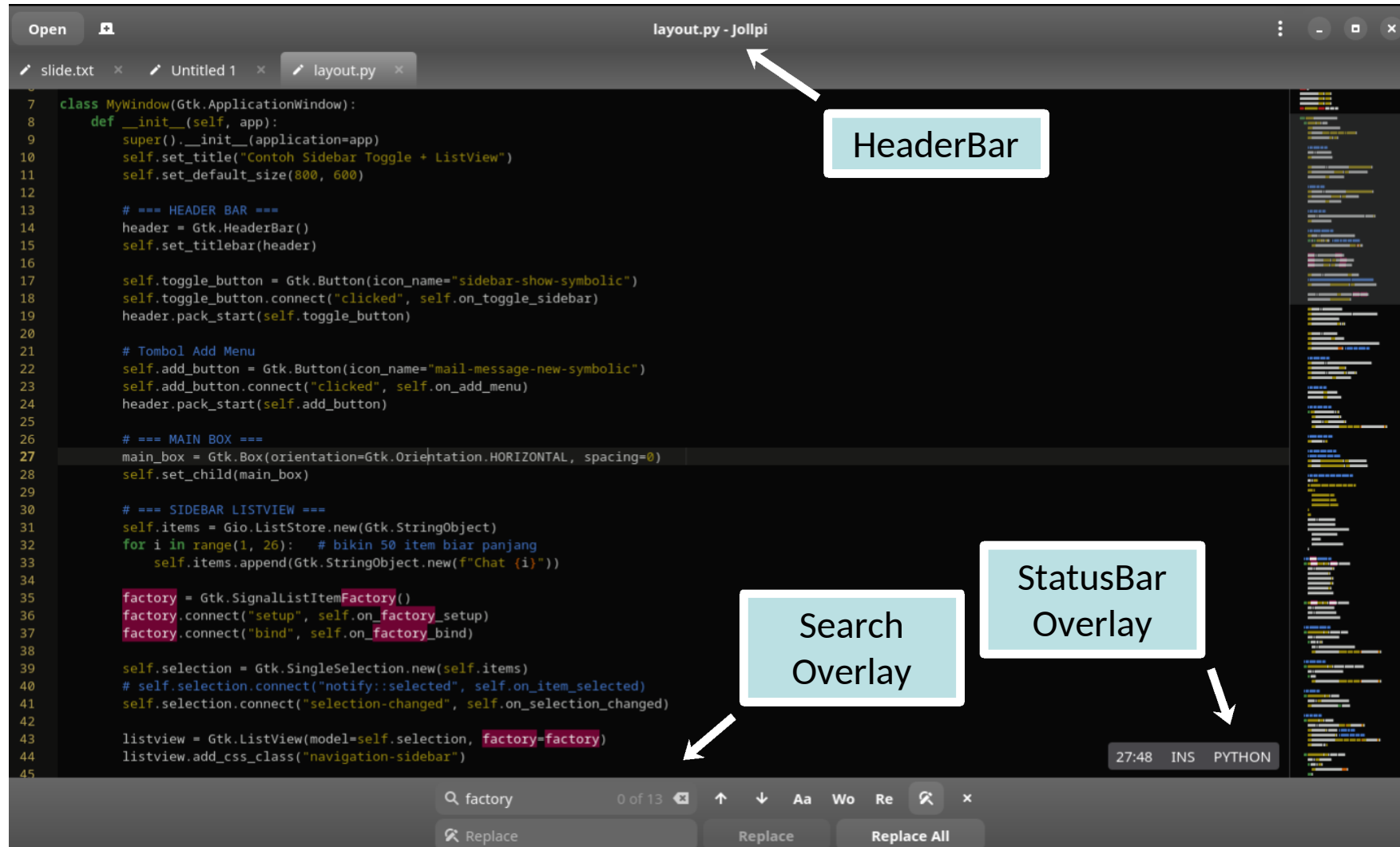
File Monitoring

- ✓ Uses Gio.FileMonitor
- ✓ Detects external modifications
- ✓ Offers reload / ignore options

```
gfile = Gio.File.new_for_path(  
    filepath  
)  
monitor = gfile.monitor_file(  
    Gio.FileMonitorFlags.NONE,  
    None  
) # returns Gio.FileMonitor  
monitor.connect(  
    "changed",  
    on_file_changed  
)
```



Modern GTK4 UI

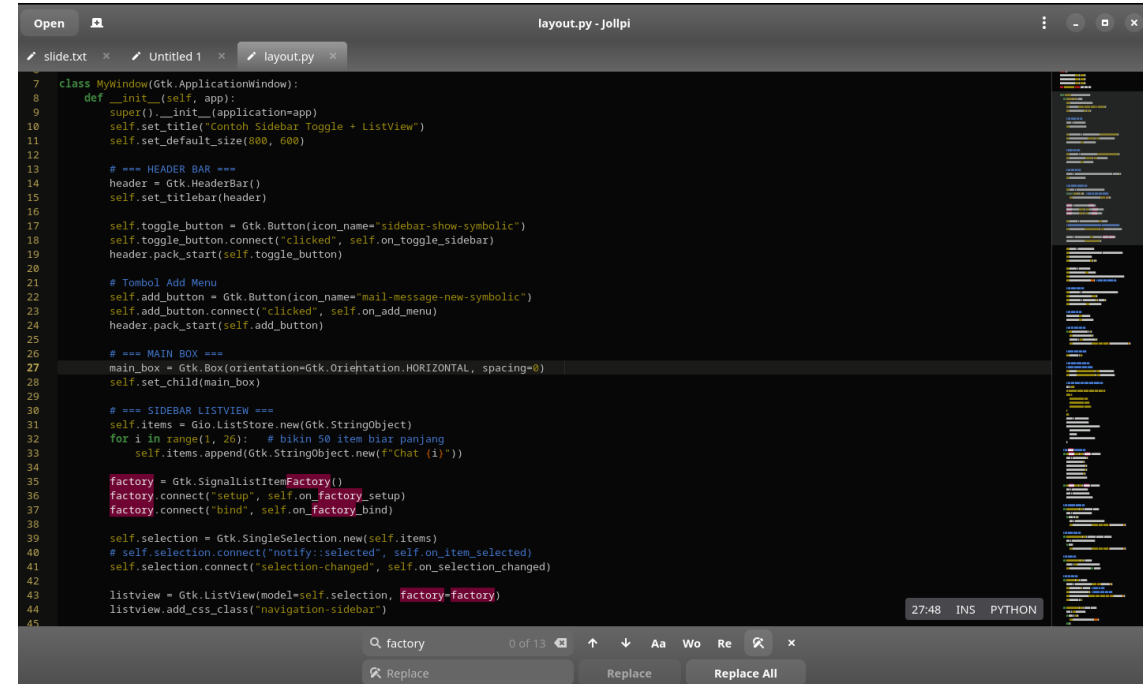


Custom Theme

```
<style-scheme id="jollpi" _name="Jollpi" version="1.0">

  <author>Zulfian</author>
  <_description>
    Just another scheme, which was taken and modified from oblivion
  style
</_description>

<!-- Palette -->
<color name="butter1"           value="#F9ED87"/>
<color name="butter2"           value="#9F8E10"/>
<color name="butter3"           value="#c4a000"/>
<color name="chameleon1"        value="#8ae234"/>
<!-- ..... -->
<!-- Global Settings -->
<style name="selection"         background="butter1"/>
<style name="cursor"            foreground="aluminium2"/>
<style name="secondary-cursor"  foreground="aluminium4-3-blend"/>
<style name="current-line"      background="aluminium5"/>
<style name="draw-spaces"       foreground="aluminium4"/>
<style name="background-pattern" background="aluminium6-5-blend"/>
```



Optional custom theme inspired by Oblivion — modified and simplified.

GTK Custom CSS

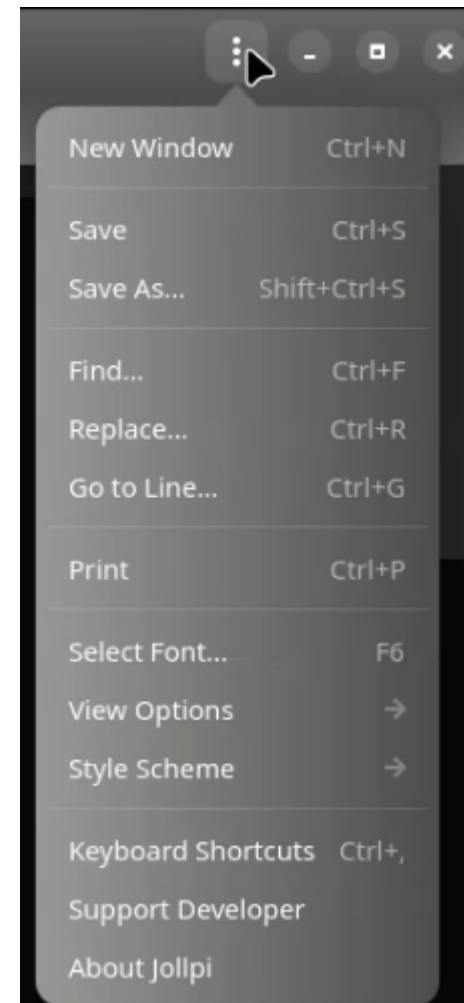
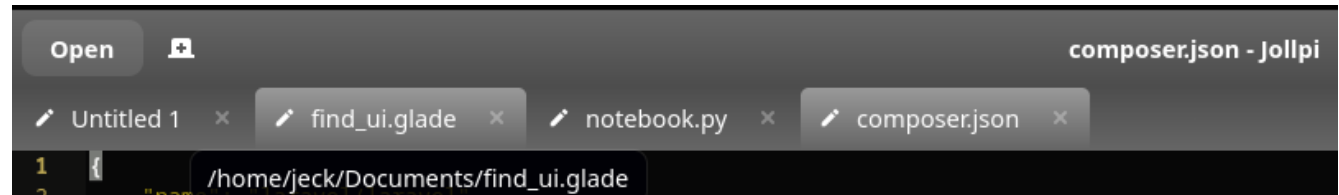
✓ Custom CSS via Gtk.CssProvider

✓ Consistent look and feel

✓ Lightweight — no extra libraries

```
provider = gtk.CssProvider()
provider.load_from_file(custom.css)

gtk.StyleContext.add_provider_for_display(
    gdk.Display.get_default(),
    provider,
    gtk.STYLE_PROVIDER_PRIORITY_USER
)
```

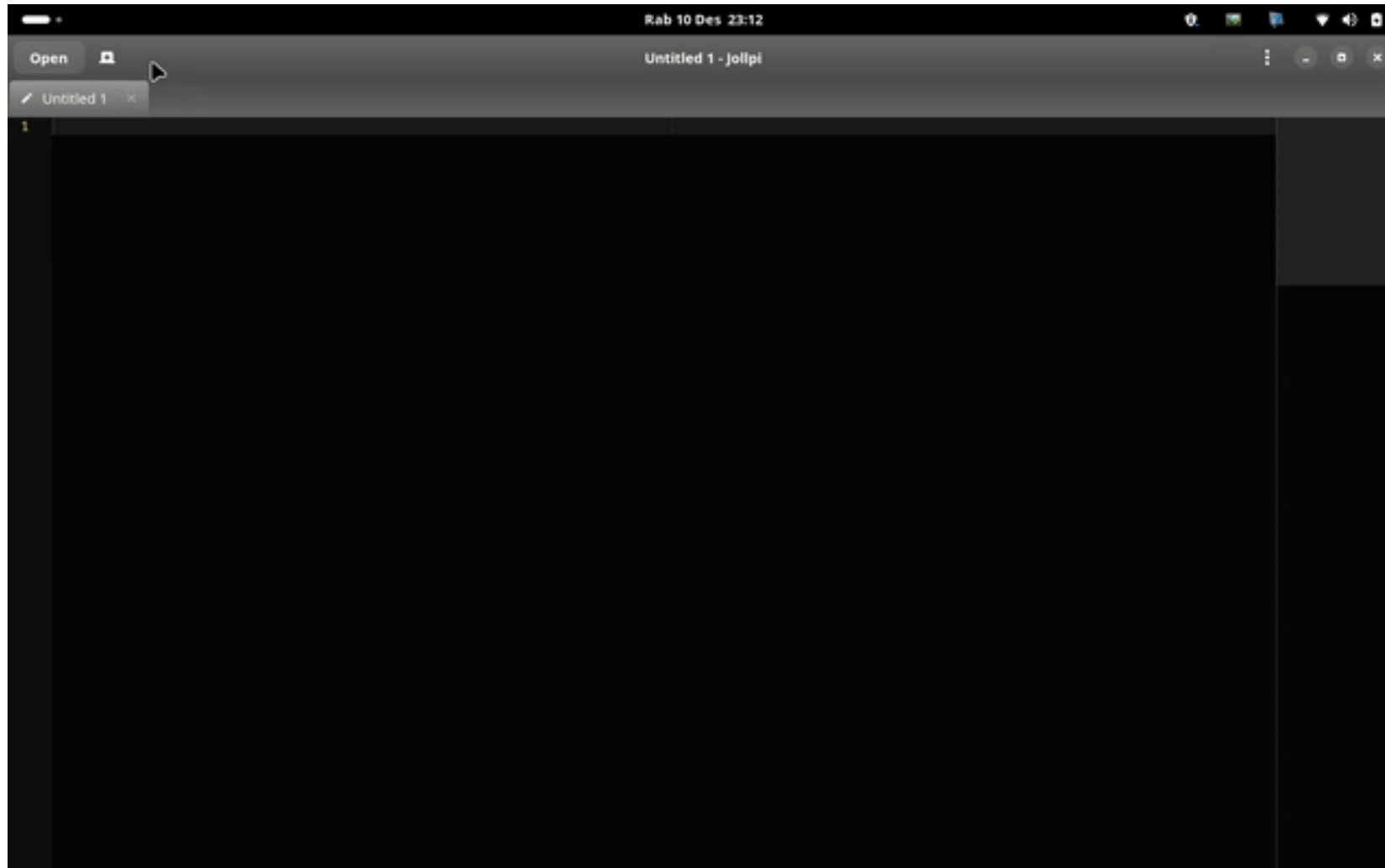


Installer / install.sh

- ✓ Automated installation
- ✓ Simple, self-contained script
- ✓ Handles setup without extra tools

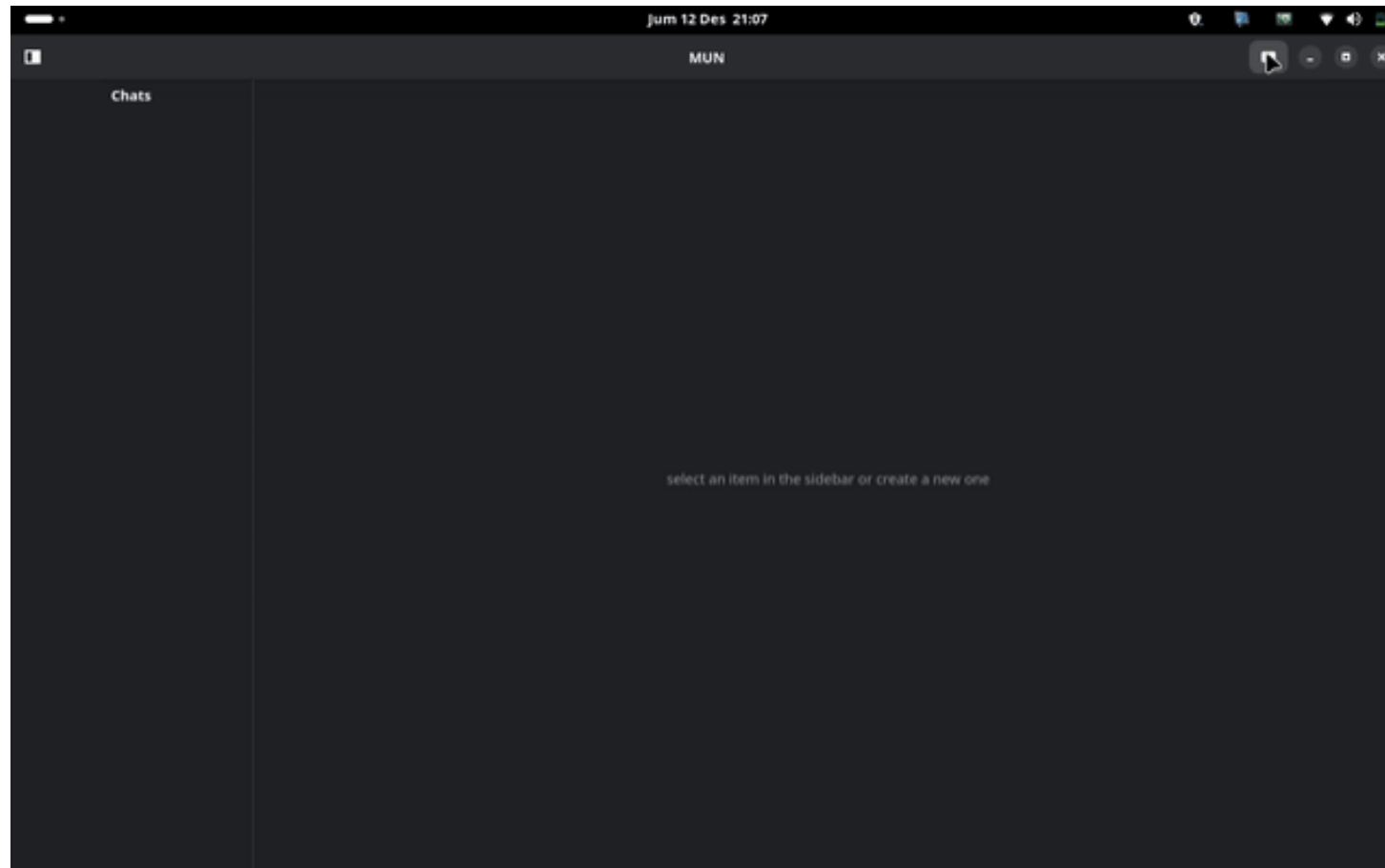
```
[zulfian@pdinp-PC jollpi3]$ ./install.sh
Usage: ./install.sh [-i | -u]
        -i : install
        -u : uninstall
[zulfian@pdinp-PC jollpi3]$
```

Demo — Jollpi (2025)



From Jollpi to MUN-AI

✓ Same toolkit ✓ Same lightweight philosophy ✓ Same maintainability mindset



Jollpi is now public

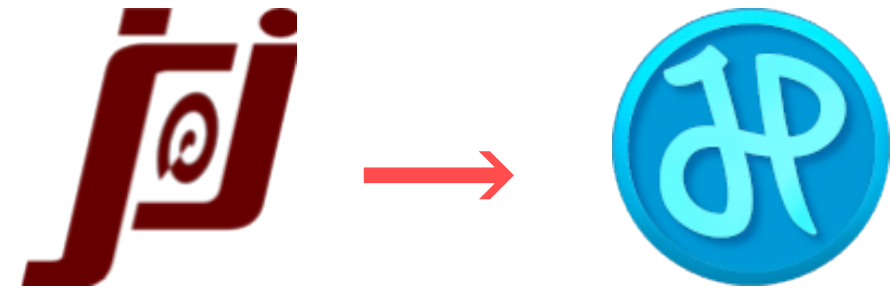
gitlab.com/zulfian1732/jollpi-text-editor



Use it. Learn from it

~ *Thank You* ~

"Old code isn't failure.
Sometimes it's just waiting
for a better version of us."



- » LinkedIn: ZULFIAN S.Kom
- » GitLab: @zulfian1732
- » GitHub: @zulfian1732
- » Mastodon: @zulfian
- » E-mail: zulfian1732@gmail.com