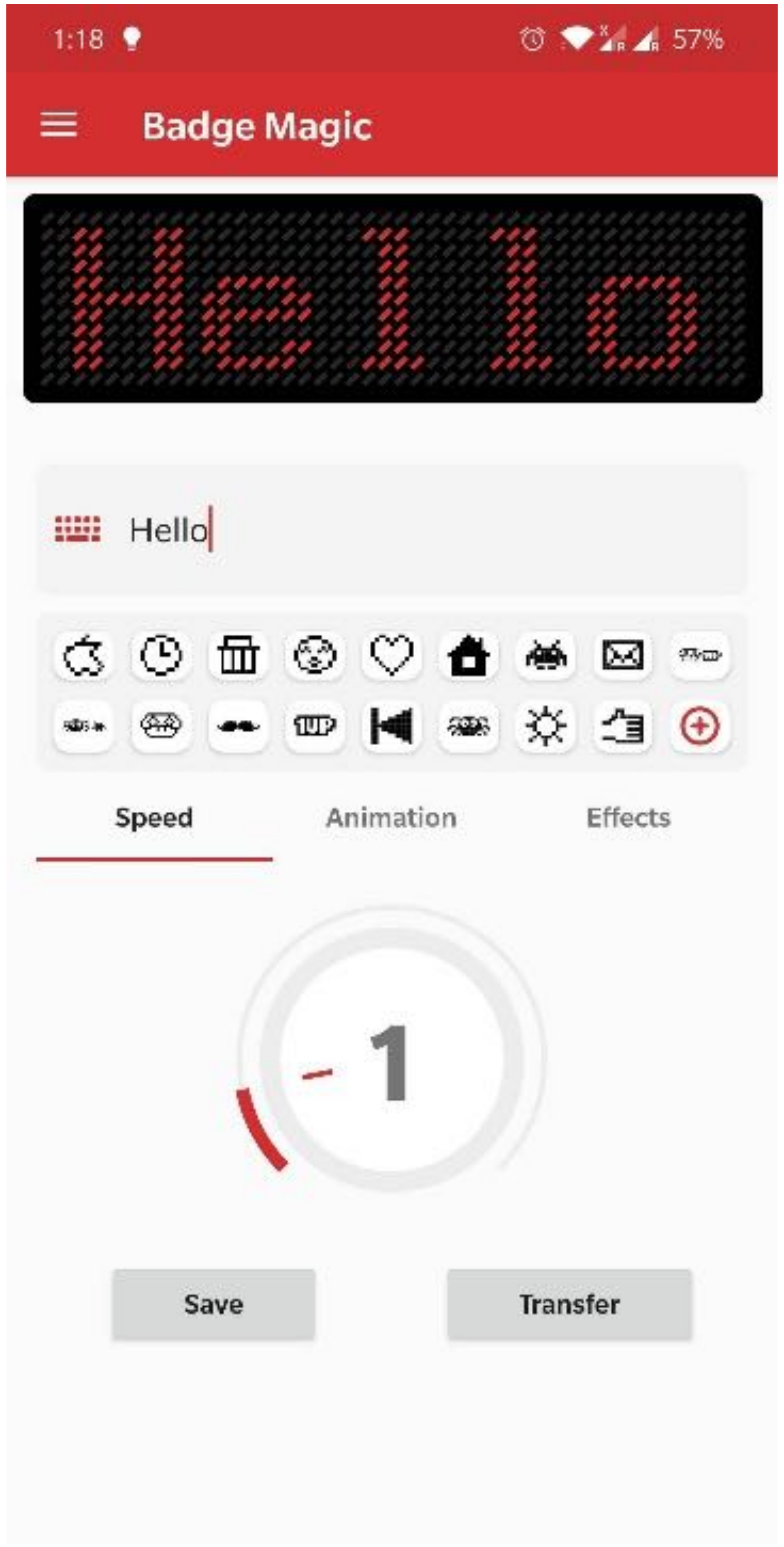
Idea

BadgeMagic for LinuxMobile

- App for Linux Mobile
- Program LED Name Badges via Bluetooth
- Template: BadgeMagic (Android)



1:18 57%

Badge Magic

Hello

Hello

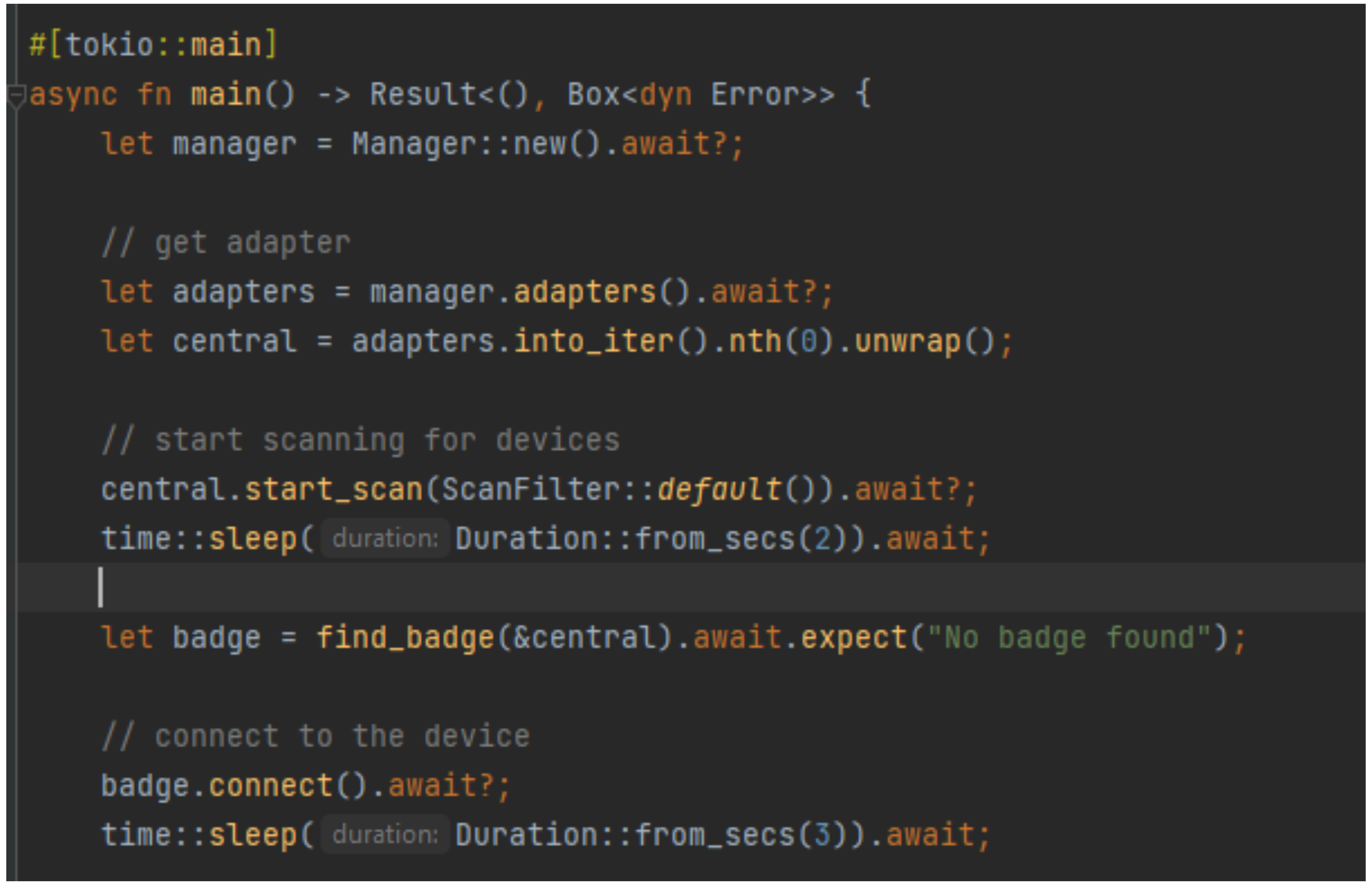
Speed Animation Effects

1

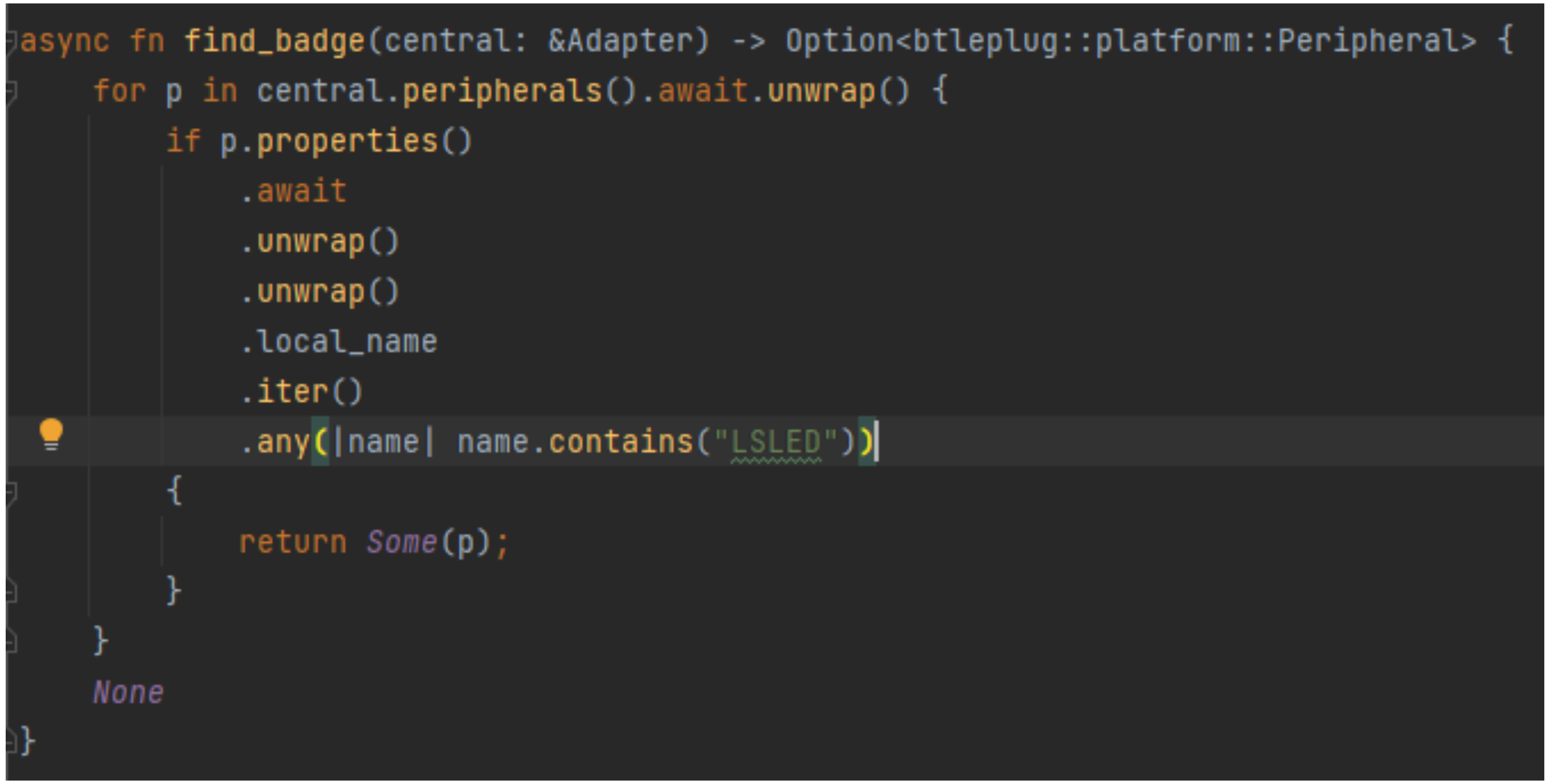
Save Transfer

Bluetooth

BadgeMagic for LinuxMobile



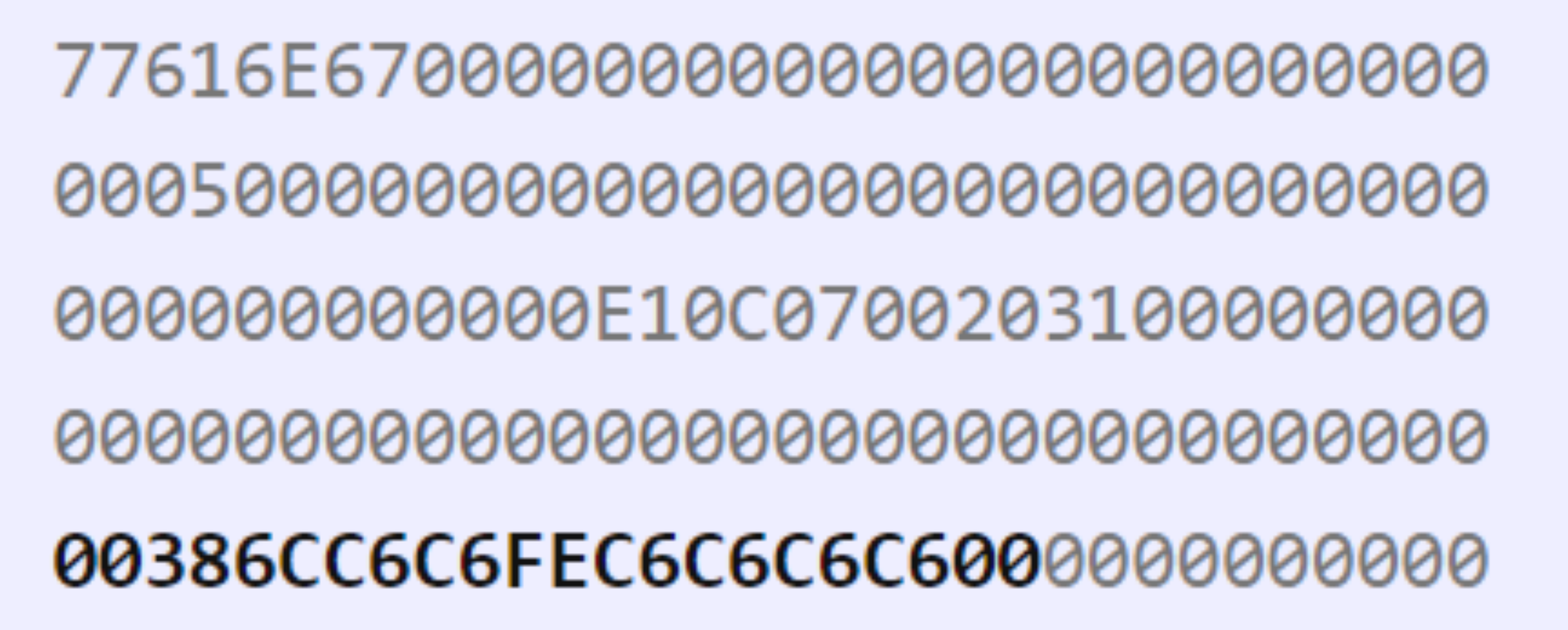
```
#[tokio::main]
async fn main() -> Result<(), Box<dyn Error>> {
    let manager = Manager::new().await?;

    // get adapter
    let adapters = manager.adapters().await?;
    let central = adapters.into_iter().nth(0).unwrap();

    // start scanning for devices
    central.start_scan(ScanFilter::default()).await?;
    time::sleep( duration: Duration::from_secs(2)).await;
    
    let badge = find_badge(&central).await.expect("No badge found");

    // connect to the device
    badge.connect().await?;
    time::sleep( duration: Duration::from_secs(3)).await;
```



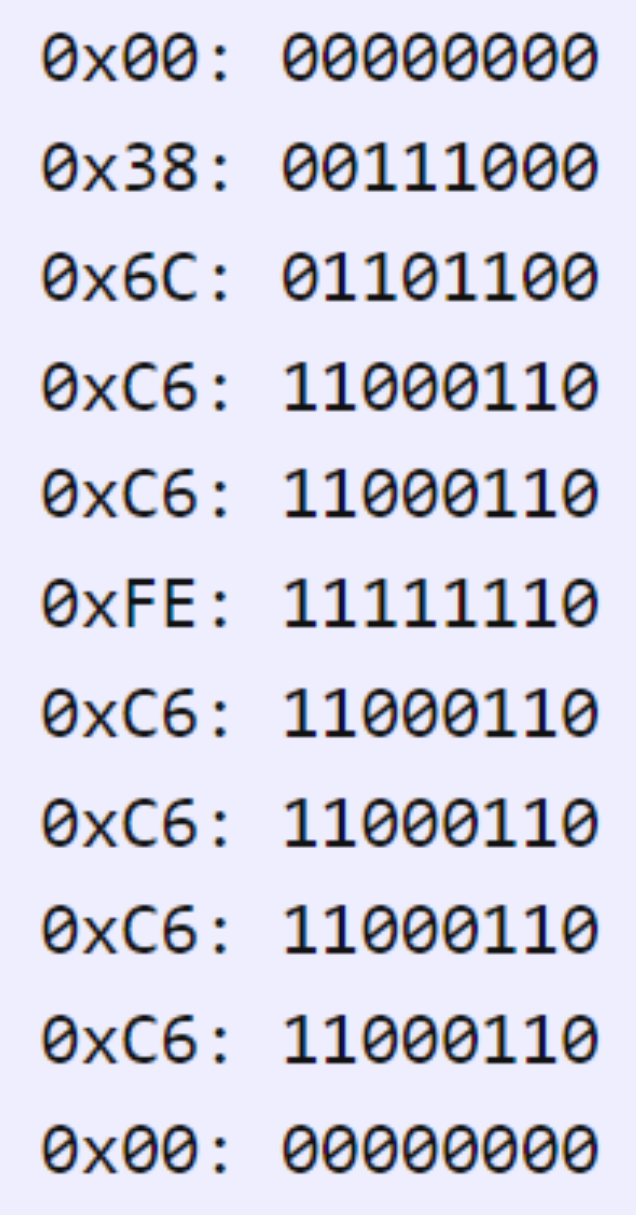
```
async fn find_badge(central: &Adapter) -> Option<btleplug::platform::Peripheral> {
    for p in central.peripherals().await.unwrap() {
        if p.properties()
            .await
            .unwrap()
            .unwrap()
            .local_name
            .iter()
            .any(|name| name.contains("LSLED"))
        {
            return Some(p);
        }
    }
    None
}
```

Bluetooth

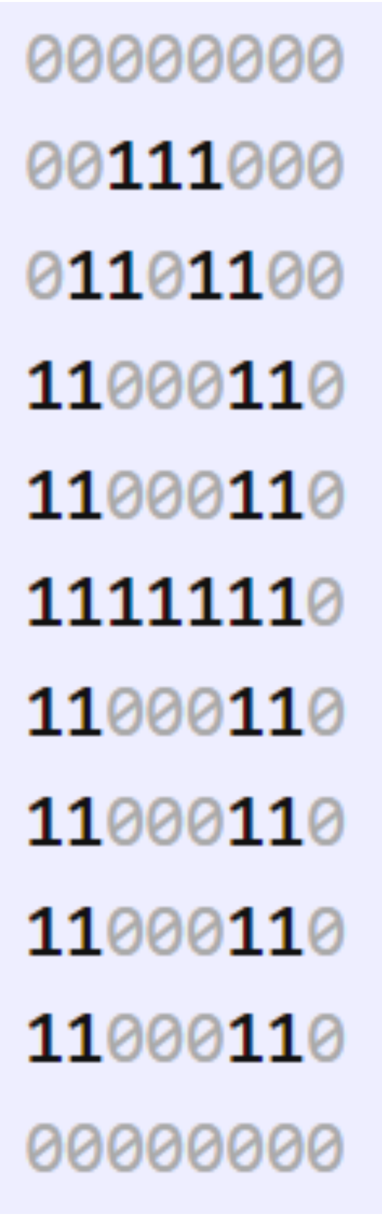
BadgeMagic for LinuxMobile



```
77616E67000000000000000000000000
00050000000000000000000000000000
000000000000E10C0700203100000000
00000000000000000000000000000000
00386CC6C6FEC6C6C6C6000000000000
```



```
0x00: 00000000
0x38: 00111000
0x6C: 01101100
0xC6: 11000110
0xC6: 11000110
0xFE: 11111110
0xC6: 11000110
0xC6: 11000110
0xC6: 11000110
0xC6: 11000110
0x00: 00000000
```



```
00000000
00111000
01101100
11000110
11000110
11111110
11000110
11000110
11000110
11000110
00000000
```

Bluetooth

BadgeMagic for LinuxMobile

```
- Characteristic { uuid: 00002a00-0000-1000-8000-00805f9b34fb, service_uuid: 00001800-0000-1000-8000-00805f9b34fb, properties: READ }
    - Characteristic { uuid: 00002a01-0000-1000-8000-00805f9b34fb, service_uuid: 00001800-0000-1000-8000-00805f9b34fb, properties: READ }
    - Characteristic { uuid: 00002a04-0000-1000-8000-00805f9b34fb, service_uuid: 00001800-0000-1000-8000-00805f9b34fb, properties: READ }
    - Characteristic { uuid: 00002a05-0000-1000-8000-00805f9b34fb, service_uuid: 00001801-0000-1000-8000-00805f9b34fb, properties: INDICATE }
    - Characteristic { uuid: 00002a23-0000-1000-8000-00805f9b34fb, service_uuid: 0000180a-0000-1000-8000-00805f9b34fb, properties: READ }
    - Characteristic { uuid: 00002a24-0000-1000-8000-00805f9b34fb, service_uuid: 0000180a-0000-1000-8000-00805f9b34fb, properties: READ }
    - Characteristic { uuid: 00002a25-0000-1000-8000-00805f9b34fb, service_uuid: 0000180a-0000-1000-8000-00805f9b34fb, properties: READ }
    - Characteristic { uuid: 00002a26-0000-1000-8000-00805f9b34fb, service_uuid: 0000180a-0000-1000-8000-00805f9b34fb, properties: READ }
    - Characteristic { uuid: 00002a27-0000-1000-8000-00805f9b34fb, service_uuid: 0000180a-0000-1000-8000-00805f9b34fb, properties: READ }
    - Characteristic { uuid: 00002a28-0000-1000-8000-00805f9b34fb, service_uuid: 0000180a-0000-1000-8000-00805f9b34fb, properties: READ }
    - Characteristic { uuid: 00002a29-0000-1000-8000-00805f9b34fb, service_uuid: 0000180a-0000-1000-8000-00805f9b34fb, properties: READ }
    - Characteristic { uuid: 00002a2a-0000-1000-8000-00805f9b34fb, service_uuid: 0000180a-0000-1000-8000-00805f9b34fb, properties: READ }
    - Characteristic { uuid: 00002a50-0000-1000-8000-00805f9b34fb, service_uuid: 0000180a-0000-1000-8000-00805f9b34fb, properties: READ }
    - Characteristic { uuid: 00002aa6-0000-1000-8000-00805f9b34fb, service_uuid: 00001800-0000-1000-8000-00805f9b34fb, properties: READ }
    - Characteristic { uuid: 0000fee1-0000-1000-8000-00805f9b34fb, service_uuid: 0000fee0-0000-1000-8000-00805f9b34fb, properties: READ | WRITE | NOTIFY }
```

Storage

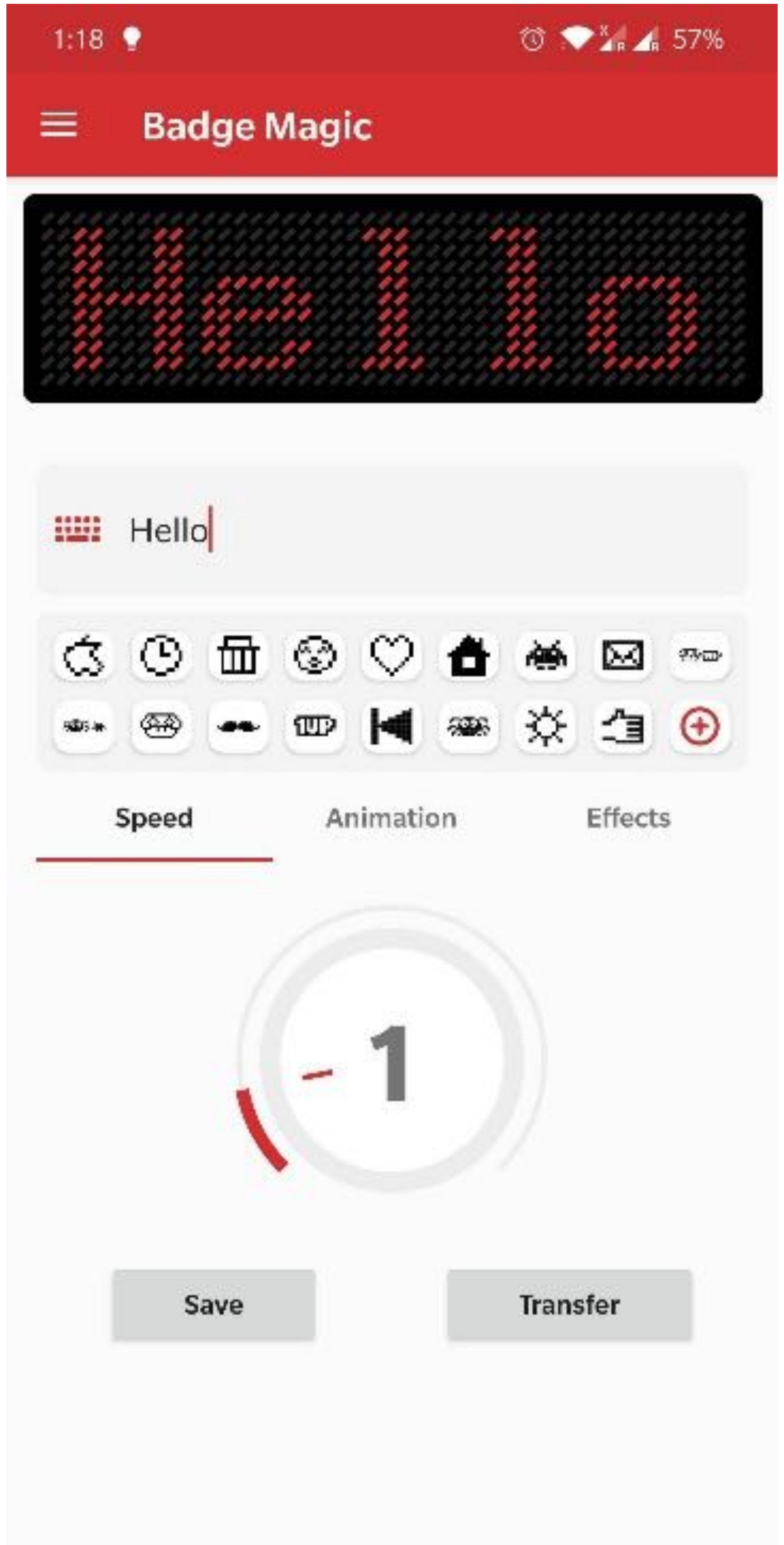
BadgeMagic for LinuxMobile

- Save already designed banners in subdirectory
- JSON file format
- Possible extension to PNG for custom clipart

Feature Roadmap

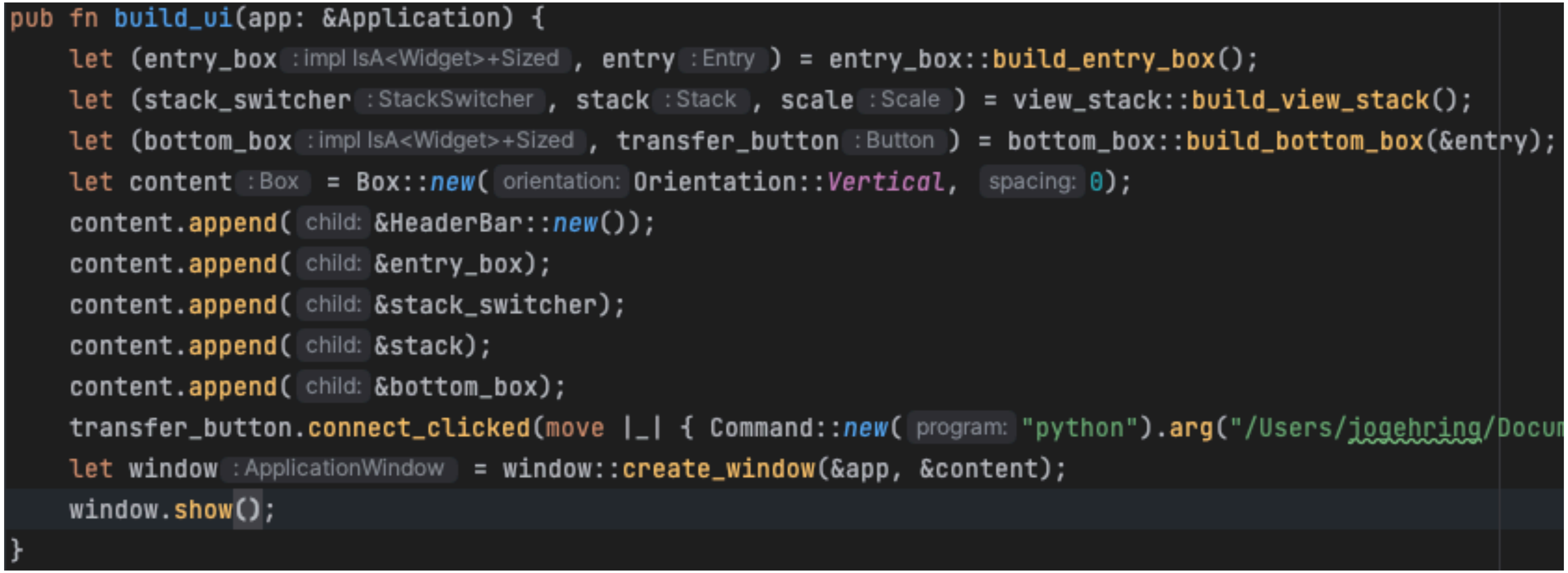
BadgeMagic for LinuxMobile

- Tier 0 (Must Have): Send Text via Bluetooth, Speed and other Adjustments, save banners
- Tier 1: Add predefined images to banner
- Tier 2: Extend functionality to USB, make the App cross-platform: Linux (Mobile), Mac OS, Windows
- Tier 3: Add custom clipart, convert images
- Tier 4: Share your banners, UI Animations



User Interface

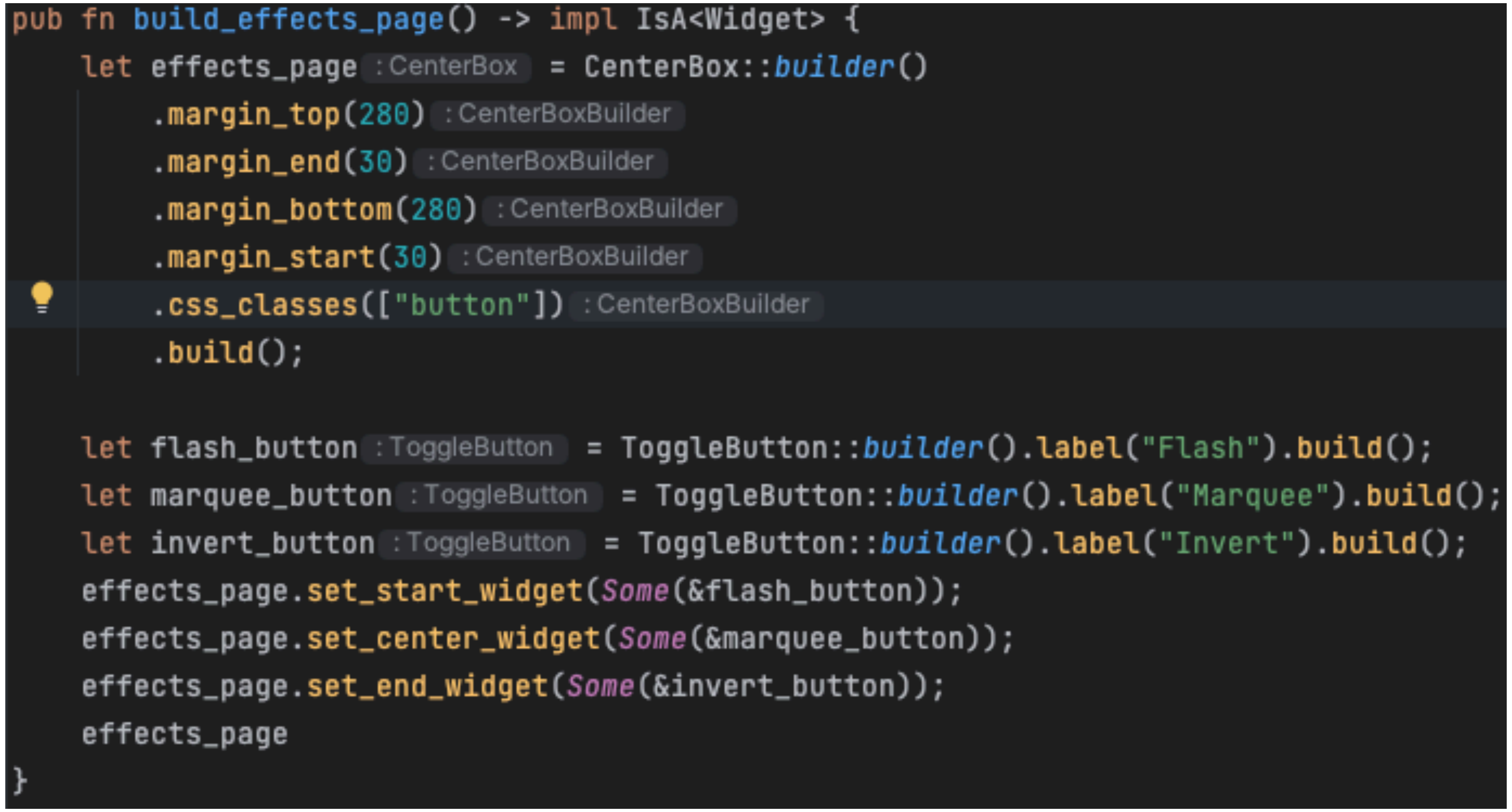
BadgeMagic for LinuxMobile



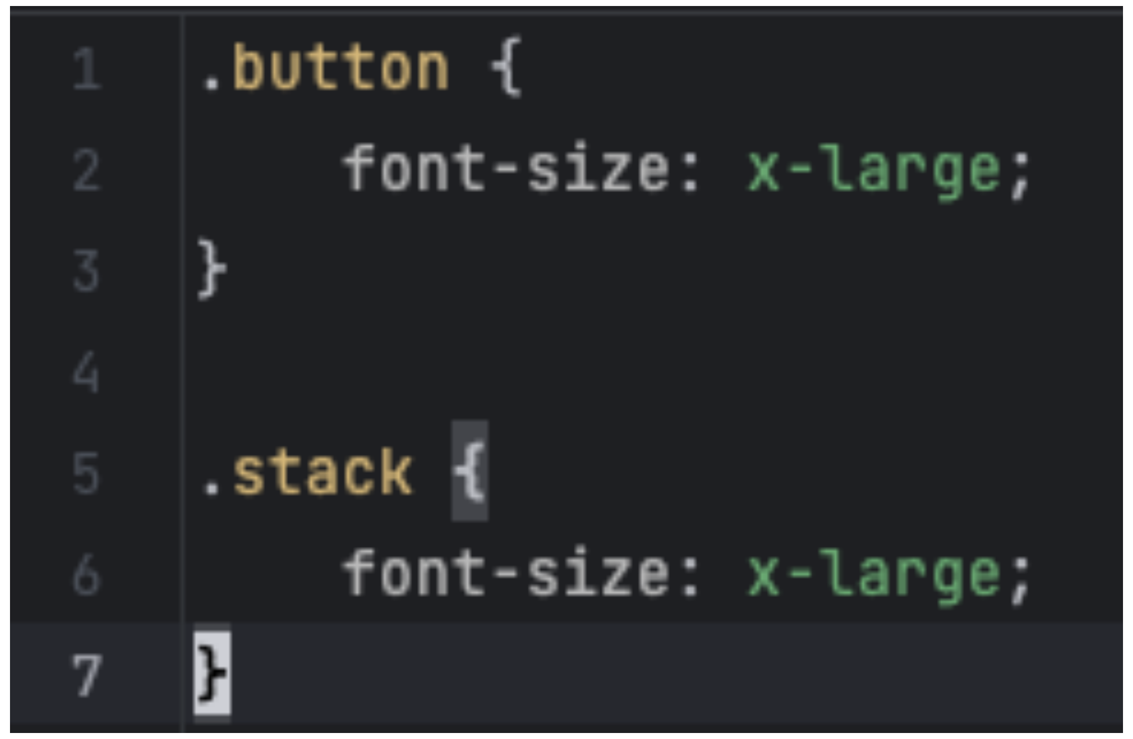
```
pub fn build_ui(app: &Application) {
    let (entry_box :impl IsA<Widget>+Sized , entry :Entry ) = entry_box::build_entry_box();
    let (stack_switcher :StackSwitcher , stack :Stack , scale :Scale ) = view_stack::build_view_stack();
    let (bottom_box :impl IsA<Widget>+Sized , transfer_button :Button ) = bottom_box::build_bottom_box(&entry);
    let content :Box = Box::new( orientation: Orientation::Vertical,  spacing: 0);
    content.append( child: &HeaderBar::new());
    content.append( child: &entry_box);
    content.append( child: &stack_switcher);
    content.append( child: &stack);
    content.append( child: &bottom_box);
    transfer_button.connect_clicked(move |_| { Command::new( program: "python").arg("/Users/jogehring/Docu
    let window :ApplicationWindow = window::create_window(&app, &content);
    window.show();
}
```

User Interface

BadgeMagic for LinuxMobile



```
pub fn build_effects_page() -> impl IsA<Widget> {
    let effects_page :CenterBox = CenterBox::builder()
        .margin_top(280) :CenterBoxBuilder
        .margin_end(30) :CenterBoxBuilder
        .margin_bottom(280) :CenterBoxBuilder
        .margin_start(30) :CenterBoxBuilder
        .css_classes(["button"]) :CenterBoxBuilder
        .build();

    let flash_button :ToggleButton = ToggleButton::builder().label("Flash").build();
    let marquee_button :ToggleButton = ToggleButton::builder().label("Marquee").build();
    let invert_button :ToggleButton = ToggleButton::builder().label("Invert").build();
    effects_page.set_start_widget(Some(&flash_button));
    effects_page.set_center_widget(Some(&marquee_button));
    effects_page.set_end_widget(Some(&invert_button));
    effects_page
}
```



```
.button {
    font-size: x-large;
}

.stack {
    font-size: x-large;
}
```