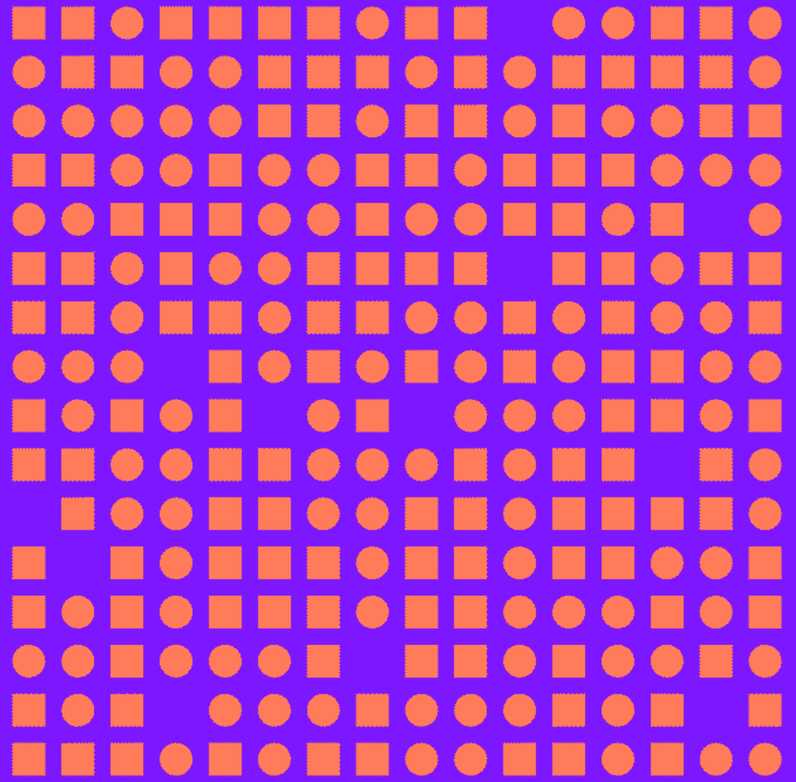
TypeFox

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Embracing Remote Development for Local IDEs



Mark Sujew

Agenda

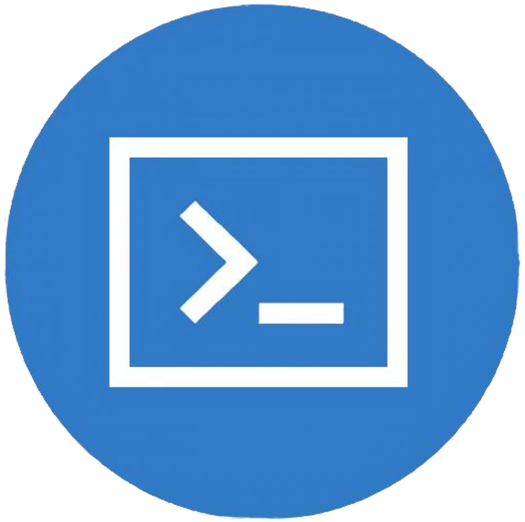
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1. Remote Development?
2. Who employs it?
3. How does it work?
4. How did we implement it?



Remote Development

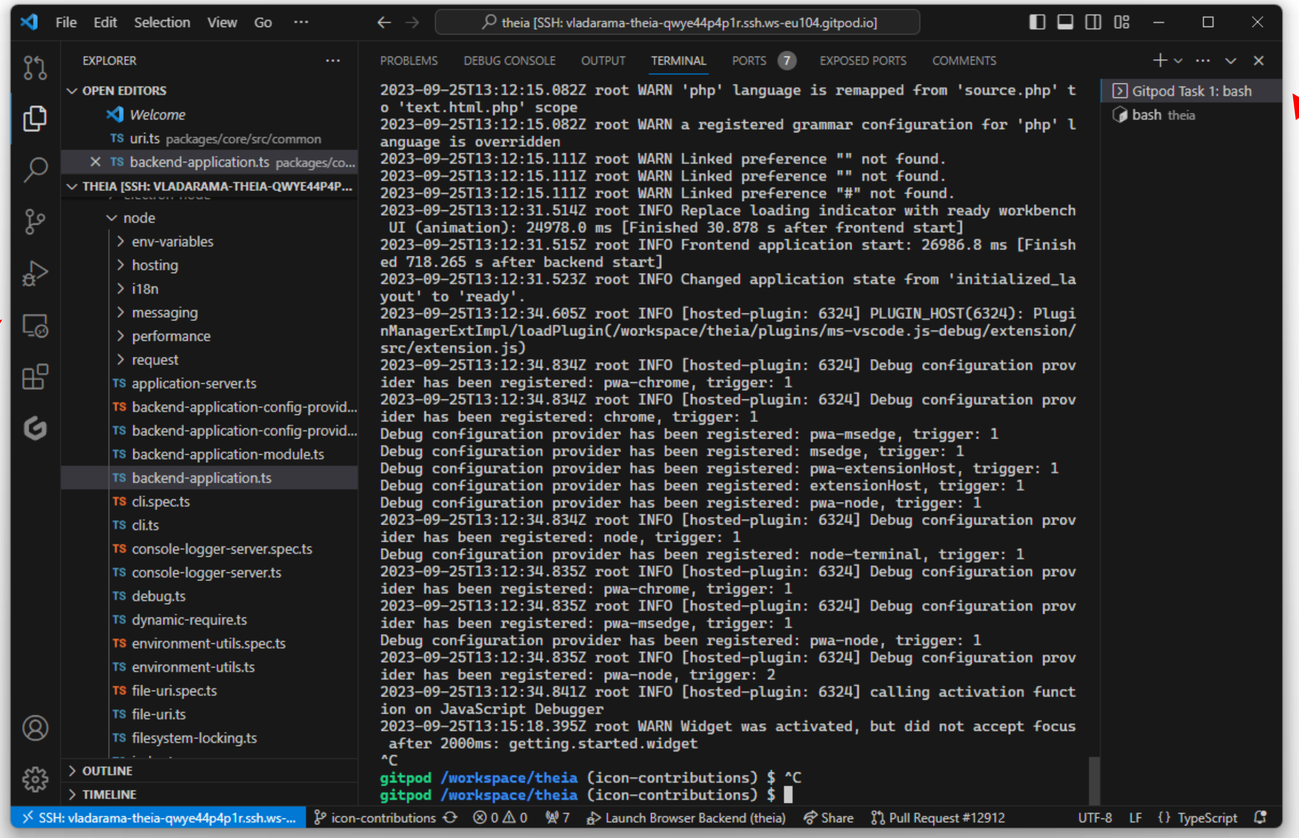
In a few words...



- Secure connection between host and remote
- Edit and run code on a remote machine/VM
- Full IDE support as if everything was local

Remote Development

Feature Set



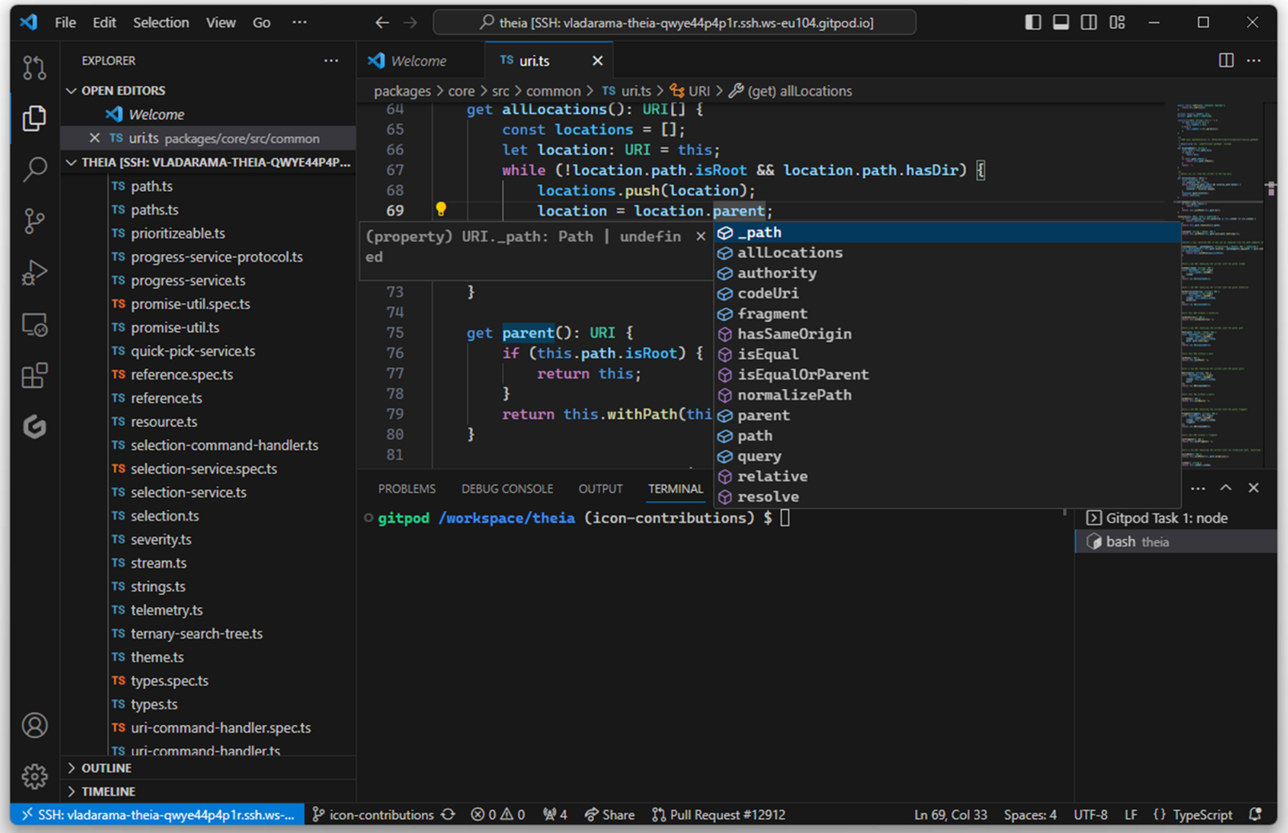
Windows 11 Window

Ubuntu Terminal

Terminals

Remote Development

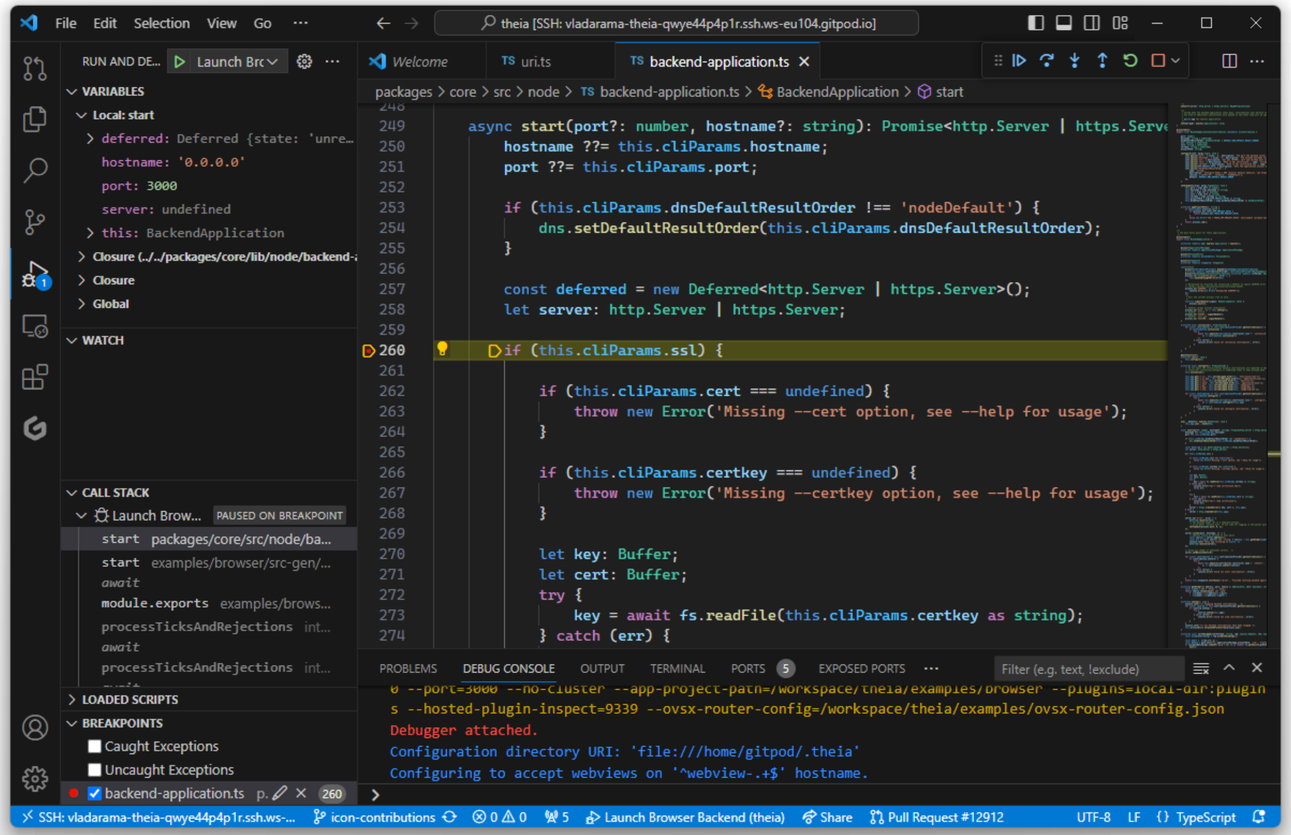
Feature Set



Language Support

Remote Development

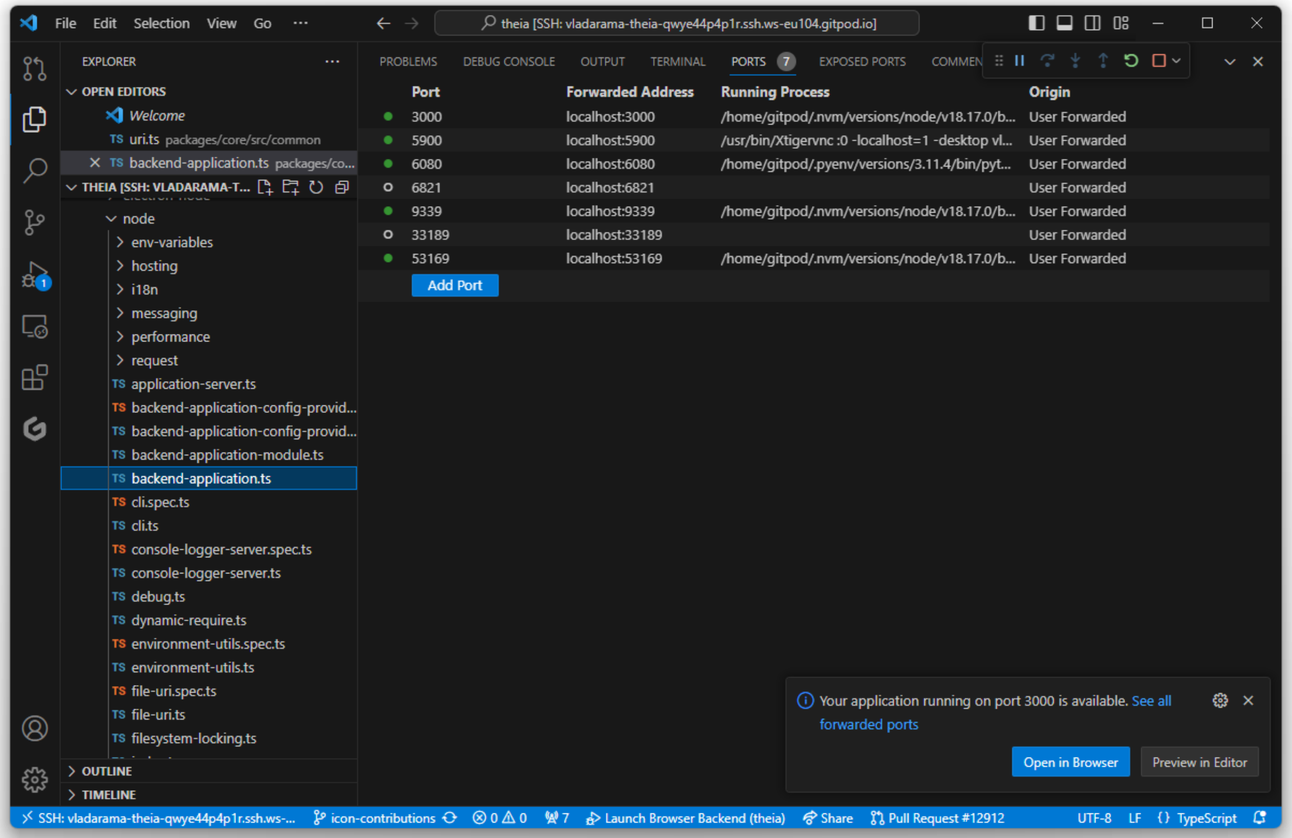
Feature Set



Debugging

Remote Development

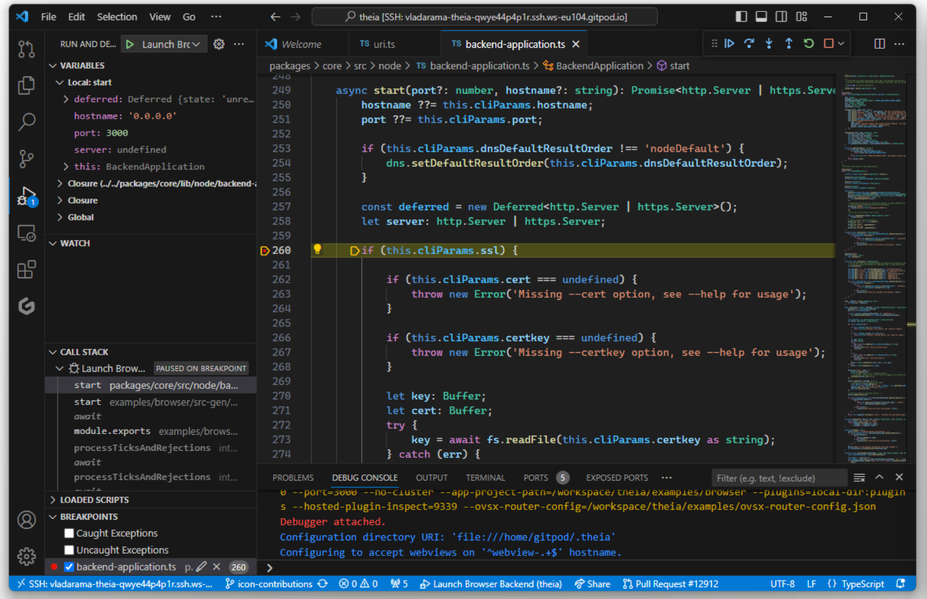
Feature Set



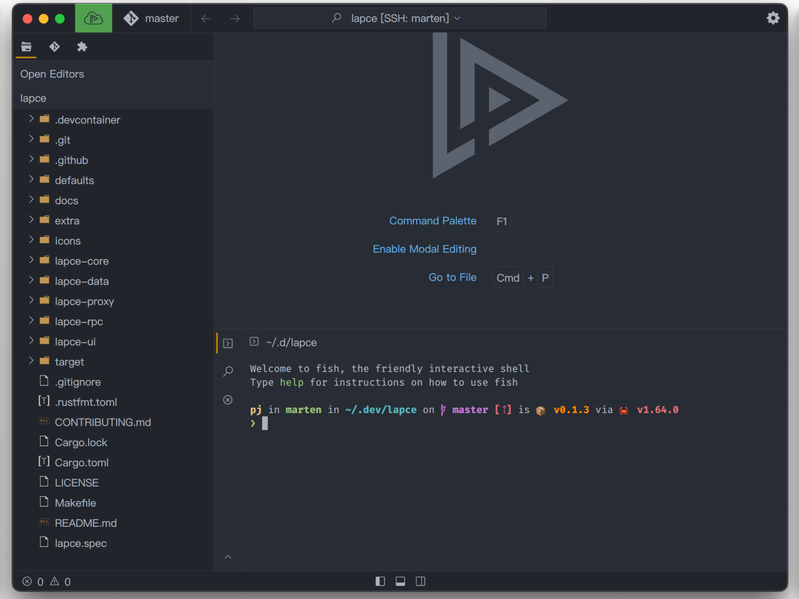
Port Forwarding

Who Offers Support?

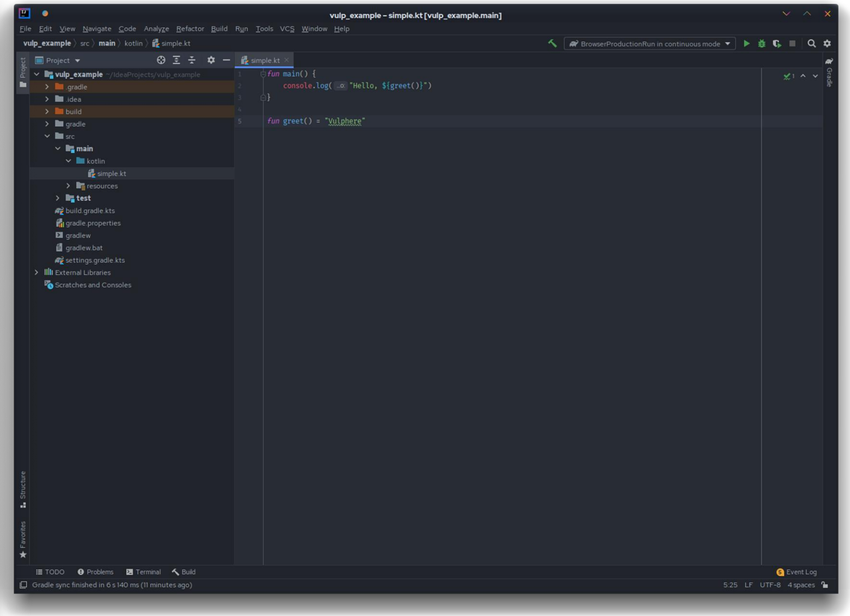
Selected Tools



VSCode



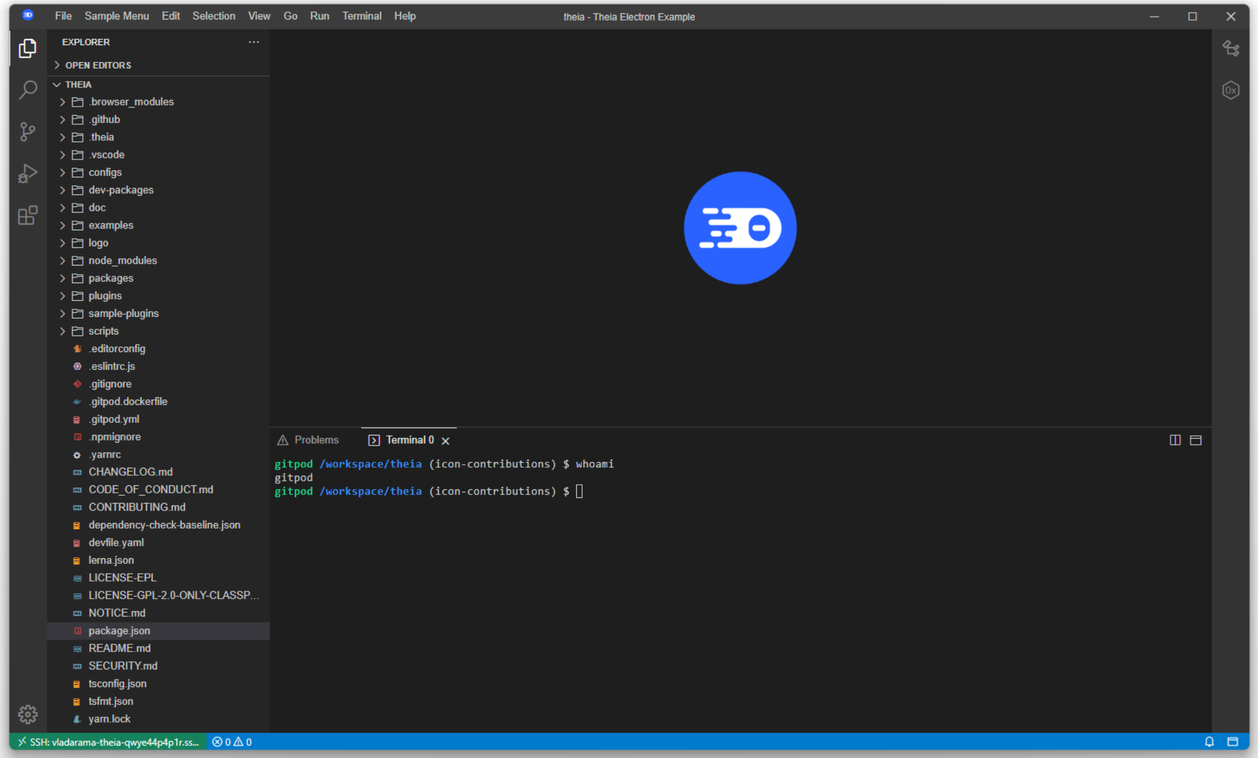
Lapce (Pre-alpha)



JetBrains Gateway

Who Offers Support?

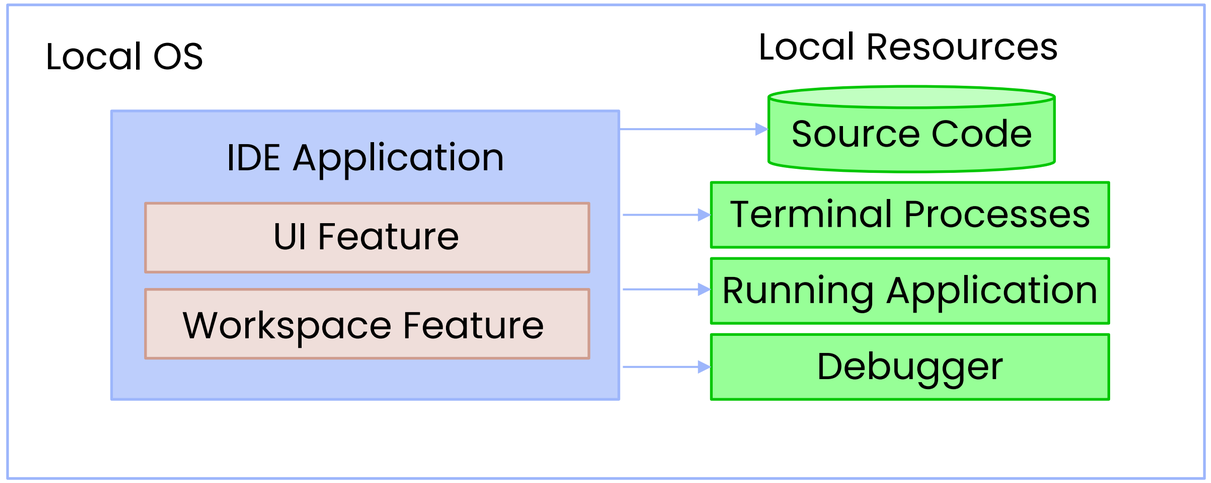
Coming Soon…



🎉 EVERY THEIA APPLICATION 🎉

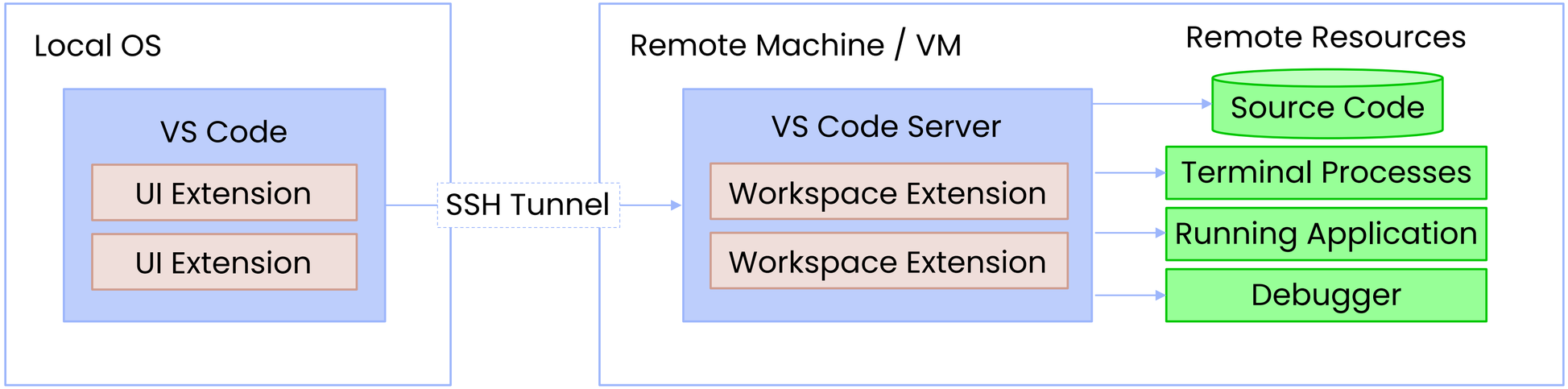
Remote Development Architecture

Classical IDE Design



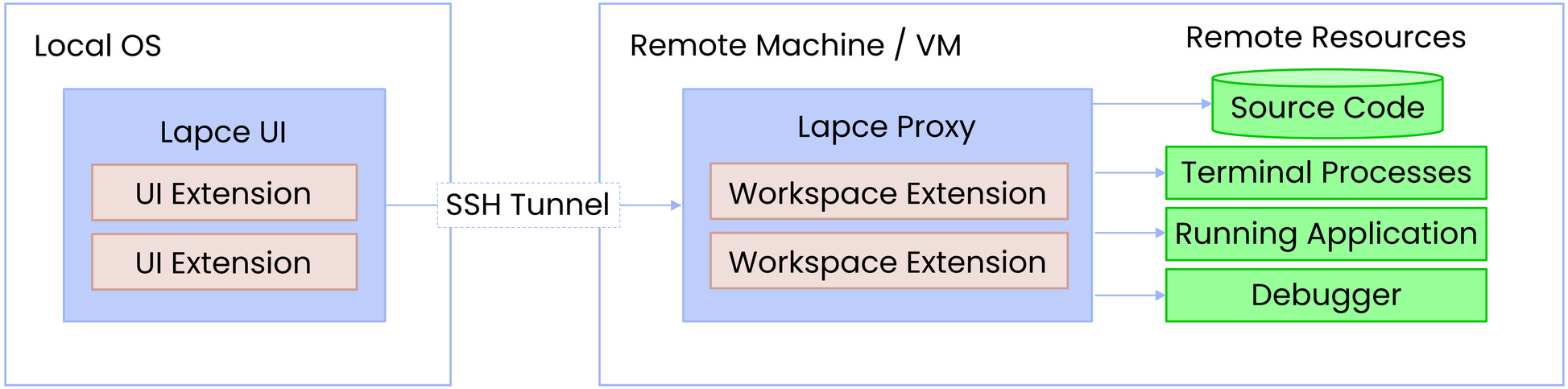
Remote Development Architecture

VSCode Remote Design



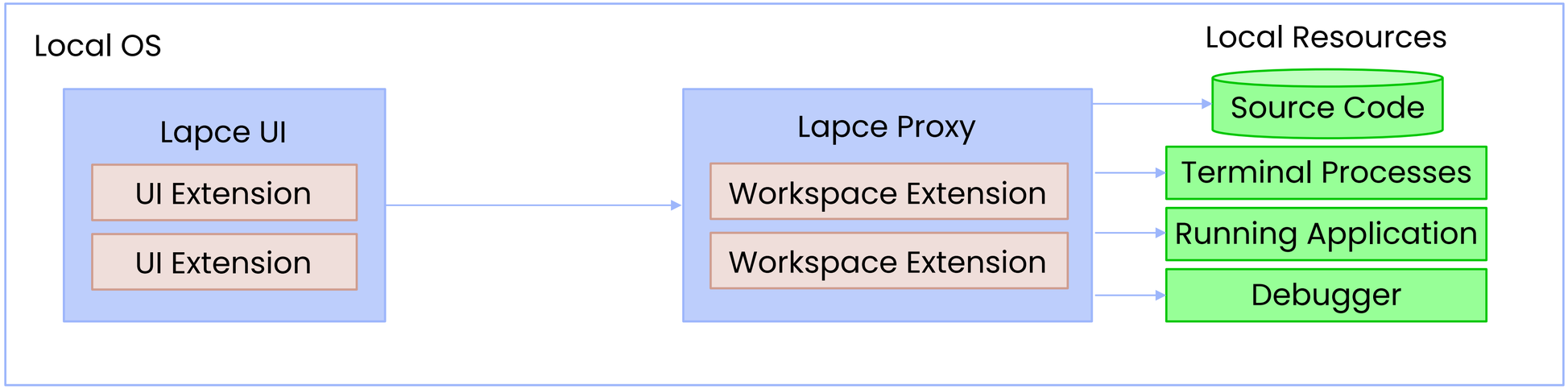
Remote Development Architecture

Lapce Remote Design



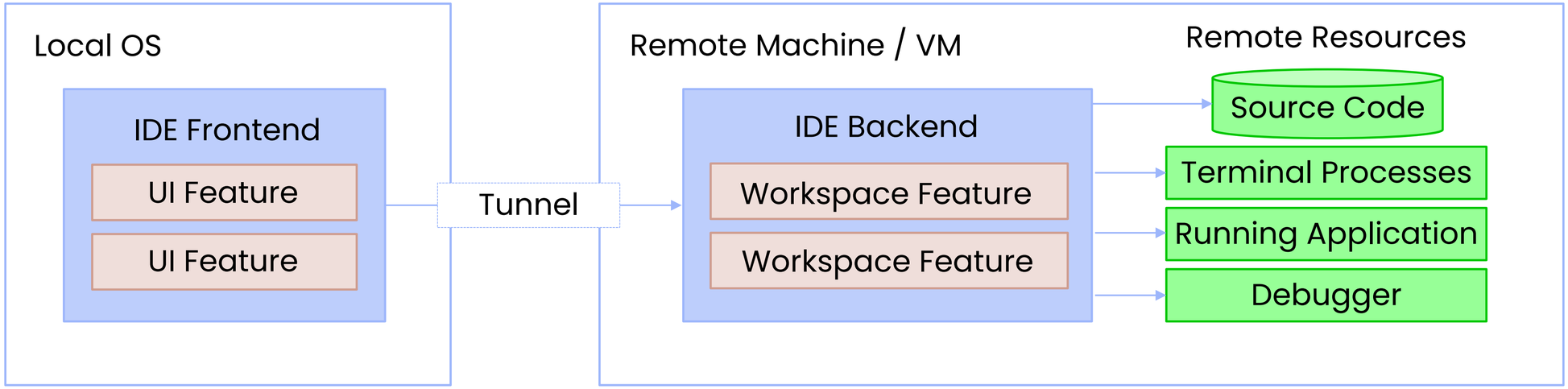
Remote Development Architecture

Lapce Local Design



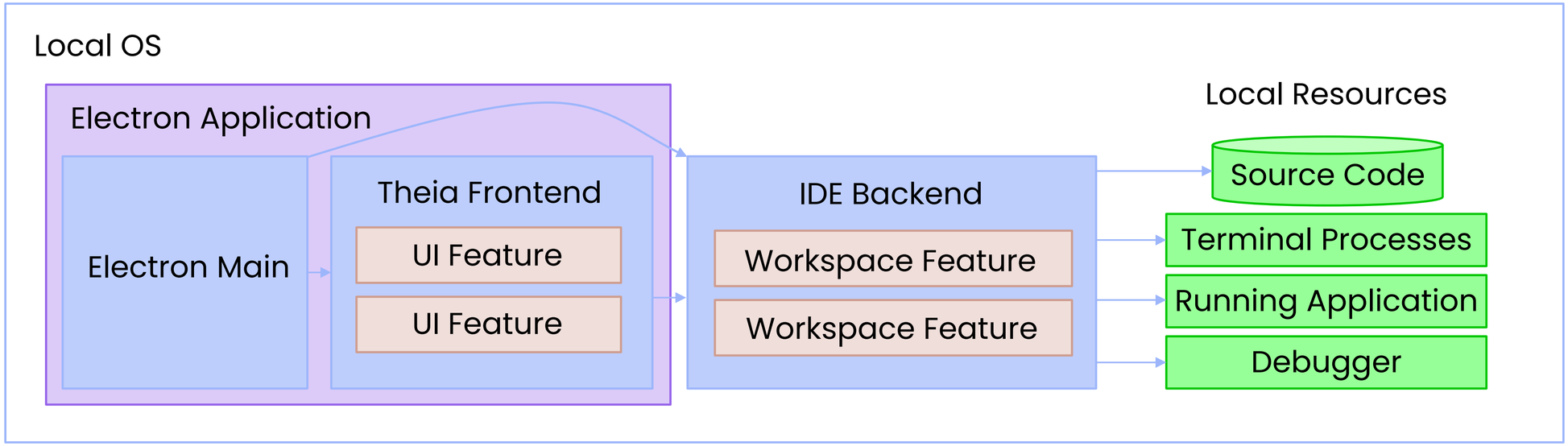
Remote Development Architecture

Abstract Remote Design



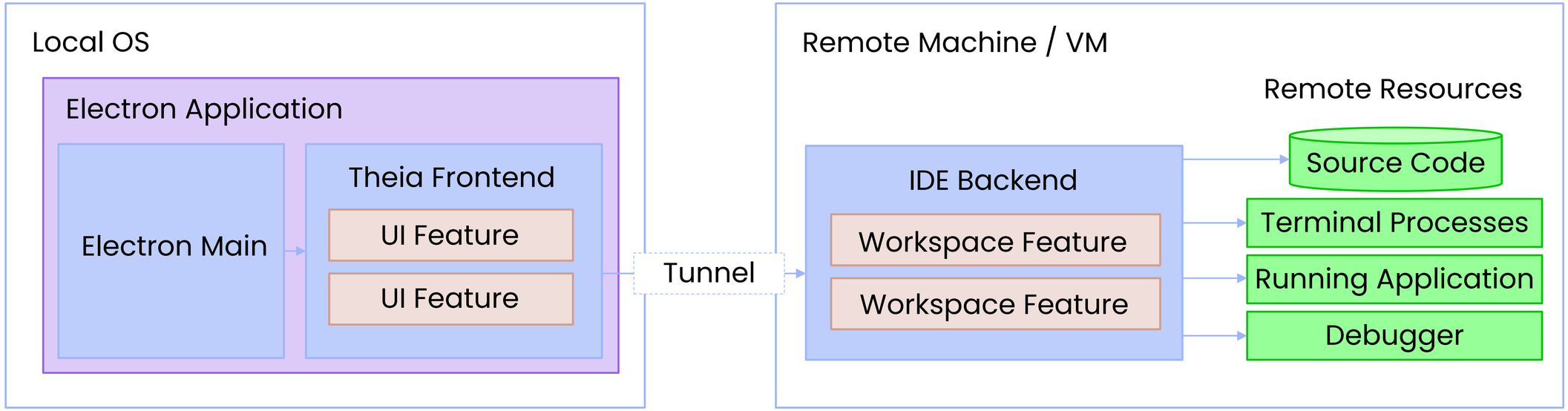
Remote Development Implementation

Theia Local Design



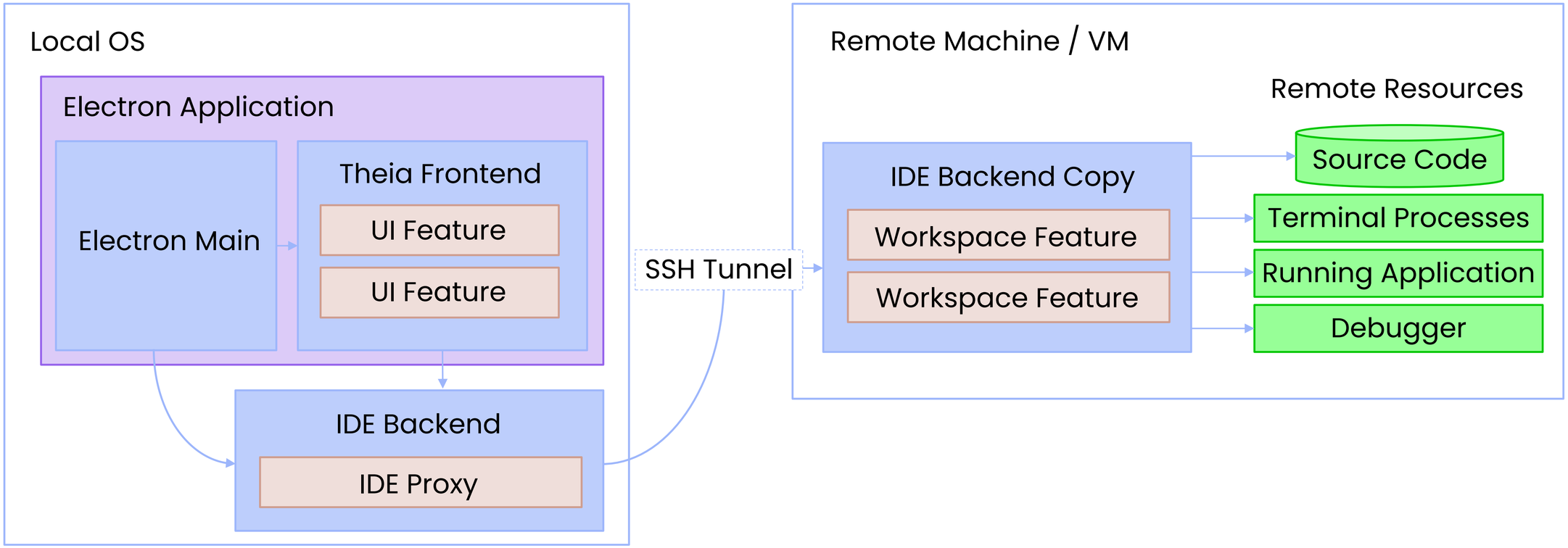
Remote Development Implementation

Theia Remote Design ❌



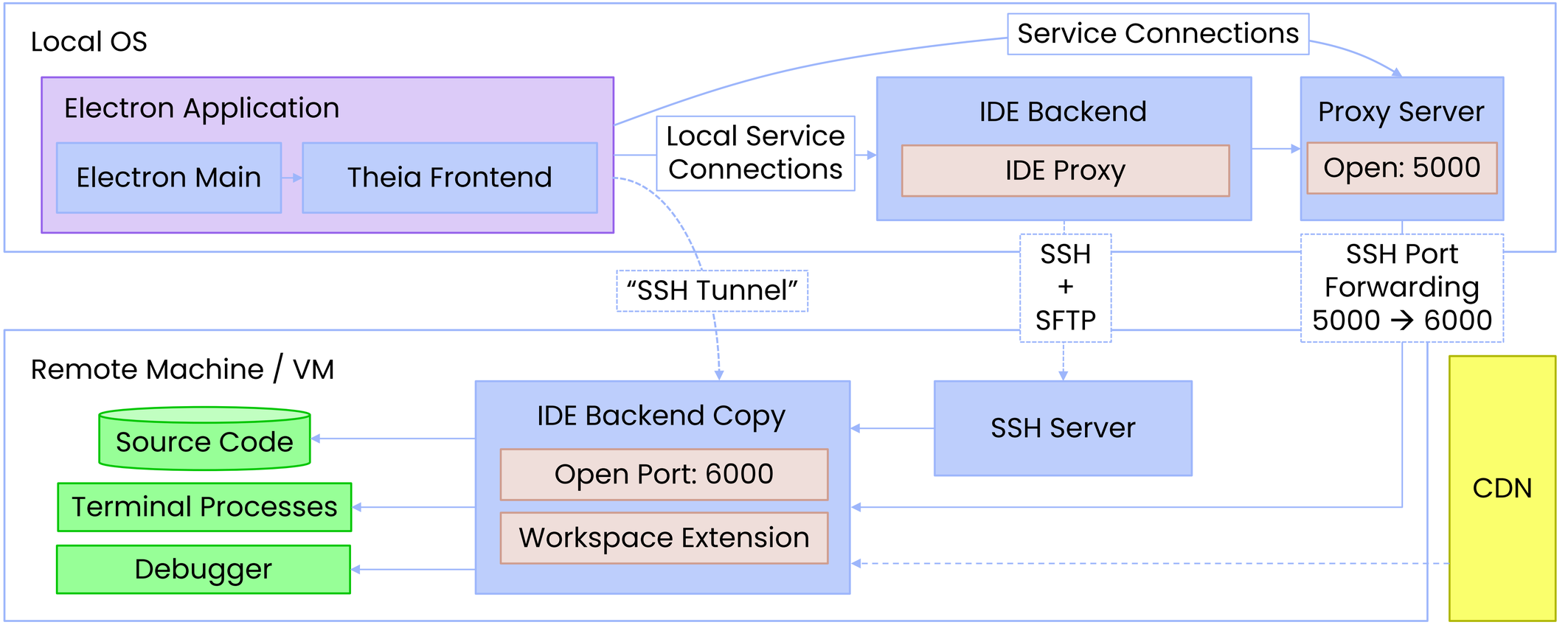
Remote Development Implementation

Theia Remote Design ✅



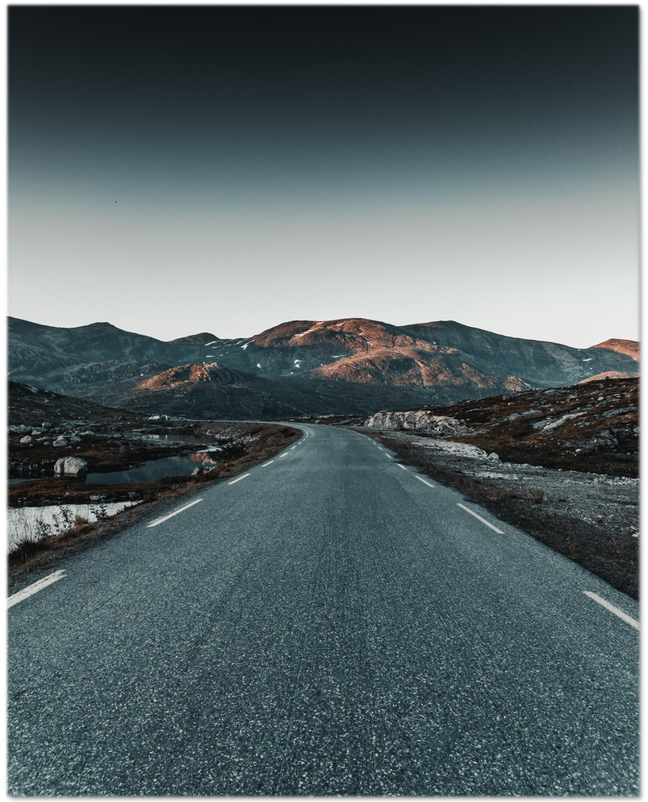
Remote Development Implementation

Theia Remote Design ✅



Remote Development

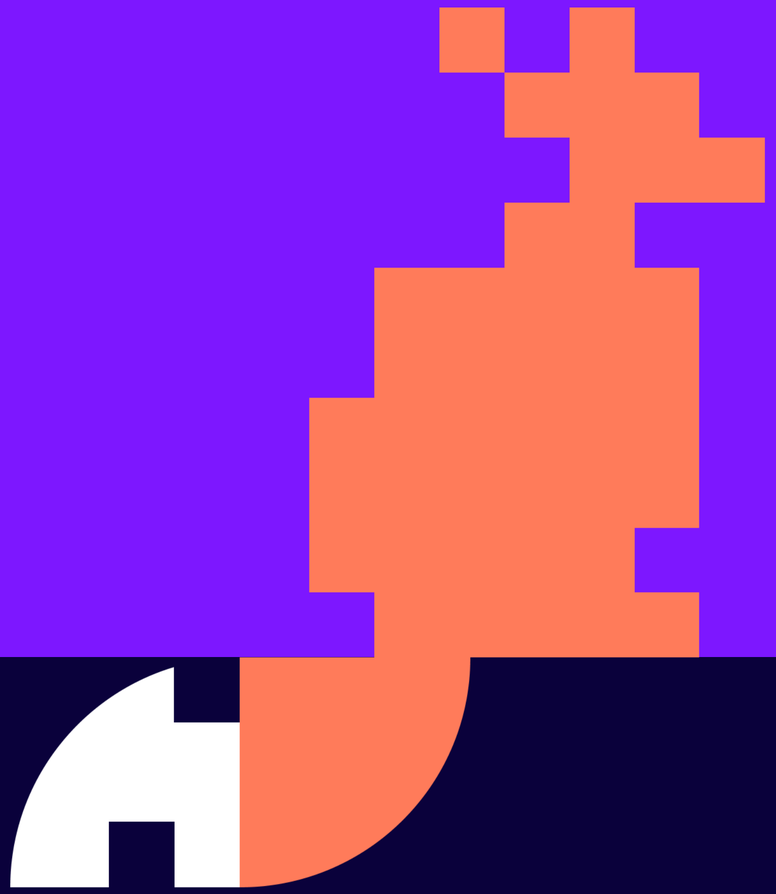
Future Roadmap



1. Download from CDNs — Near Future
2. Remote Port Forwarding — Uncertain
3. WSL Support — Uncertain
4. Dev Container Support — Uncertain

TypeFox

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Questions?