# MODERN WORDPRESS DEVELOPMENT

WORDCAMP US 2023

# INTRODUCTION

## ABOUT ME

- Self-taught, full-stack developer 👨🏾‍💻
- 20+ years in tech, 7+ with WP 👴🏾
- Previous roles include senior dev, team lead, CTO and co-founder 📈
- Currently serve as instructor, consultant and community lead 👨🏾‍🏫
- Passionate about advancing Black equity in tech ✊🏾
- Designed in 🇹🇹, assembled in 🇬🇧

# ABOUT YOU

https://www.mentimeter.com/app/presentation/aljaxvmn5nqsu8axfsmfgucidnwf9chk/cozmxe5i2sdt

## PURPOSE

To explore some of the modern tools and processes that can help WordPress developers deliver and maintain their projects more quickly, easily and efficiently.

Happier developers mean happier customers!

# PRINCIPLES

✔ Reliability

✔ Productivity

✔ Security

✔ Agility

✔ Sustainability

# PREFACE

- "Development" in this context refers to the process of building WordPress projects that involve the creation and maintenance of significant PHP and/or Javascript code.
- Due to time constraints, this won't be an exhaustive list of every aspect of the development process.
- Participation is encouraged, but optional. If you're technically-inclined and choose to follow the practical steps, you should have a functioning project by the end of this session.

# AGENDA

Source Code Management

$\longrightarrow$

Development Environment

$\longrightarrow$

WordPress Boilerplate

$\longrightarrow$

CI/CD

$\longrightarrow$

Summary

$\longrightarrow$

# SOURCE CODE MANAGEMENT

# DEFINITION

SCM tools track changes to a software project over time, allowing developers to experiment with new features without fear of breaking other parts of the codebase.

They also support effective teamwork by letting multiple developers work on collaborative projects without intefering with each other's code.

# SURVEY

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# MOTIVATIONS

✔ Better Code Protection

✔ Easier Collaboration

✔ Faster Troubleshooting

✔ Higher Code Quality

✔ More Consistent Releases

# SOLUTION

❝ *Git is a distributed version control system designed for managing source code changes in software development projects. It allows developers to work on different features concurrently, while capturing a detailed history of modifications.*

https://git-scm.com/downloads

❝ *GitHub is a web-based platform that enhances collaborative software development using Git. It allows developers to store, manage, and share their code, while offering features like issue tracking, pull requests and code reviews that enhance teamwork.*

https://github.com/signup
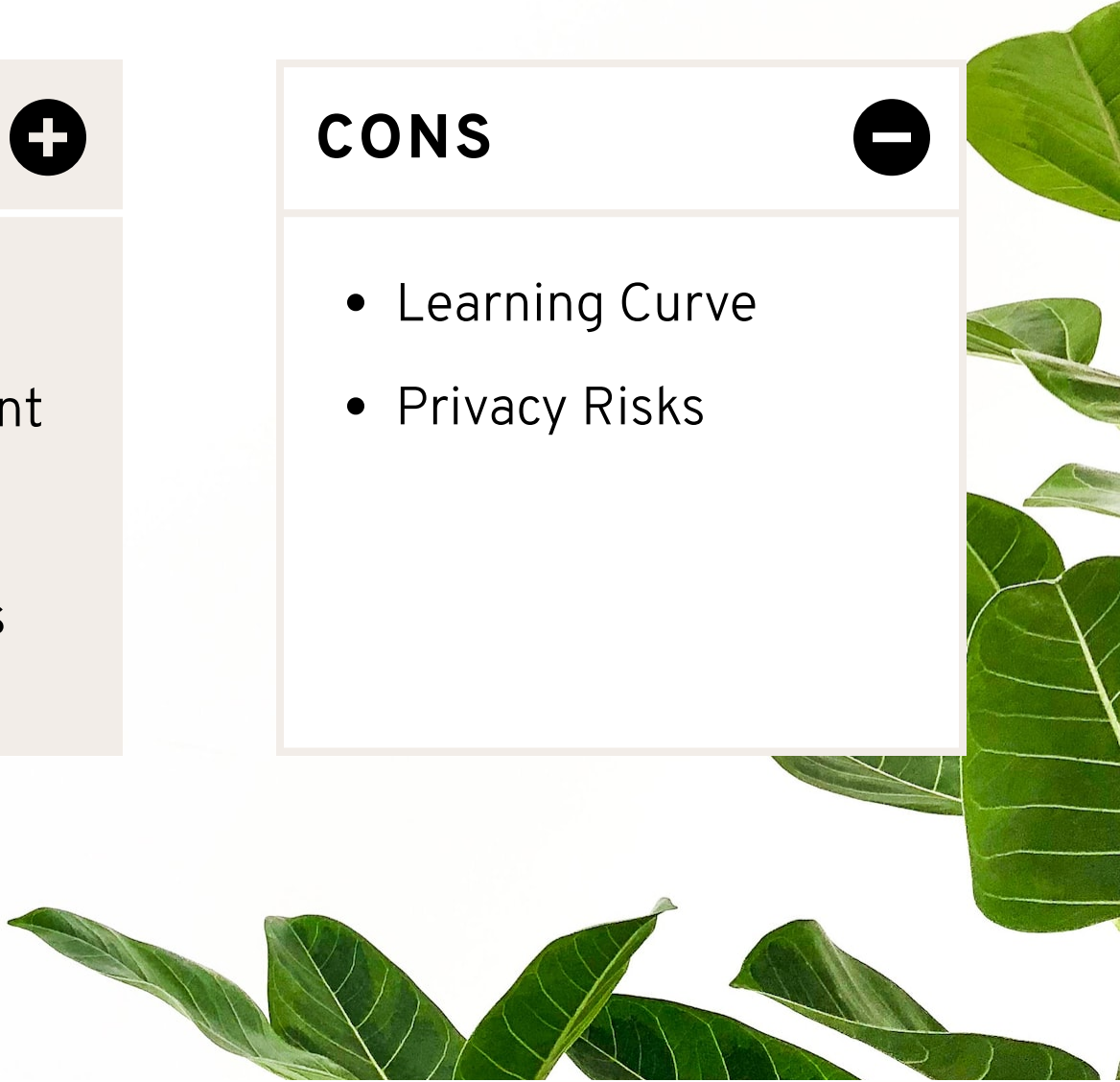
# PROS & CONS

## PROS ➕

- Tool Integration
- Project Management
- Access Control
- Collaboration Tools

## CONS ➖

- Learning Curve
- Privacy Risks

# WALKTHROUGH

Hands-on demonstration

# DEVELOPMENT ENVIRONMENT

# DEFINITION

A development environment is like a private playground where developers can create, test, and fine-tune their WordPress sites and components before releasing them for public consumption.

This environment is ideally self-contained and closely mimics the production system but is fully isolated from it, ensuring that changes, experiments and mistakes don't unintentionally affect real-world users.

# SURVEY

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## MOTIVATIONS

✔ Improved Production Stability

✔ SCM Support

✔ Reduced Security Risk

✔ Better Developer Experience

# SOLUTION

" *Lando is a free, open source, cross-platform, local development environment and DevOps tool built on Docker container technology and developed by Tandem. Designed to work with most major languages, frameworks and services, Lando provides an easy way for developers of all skill levels to specify simple or complex requirements for their projects, and then quickly get to work on them.*

https://lando.org
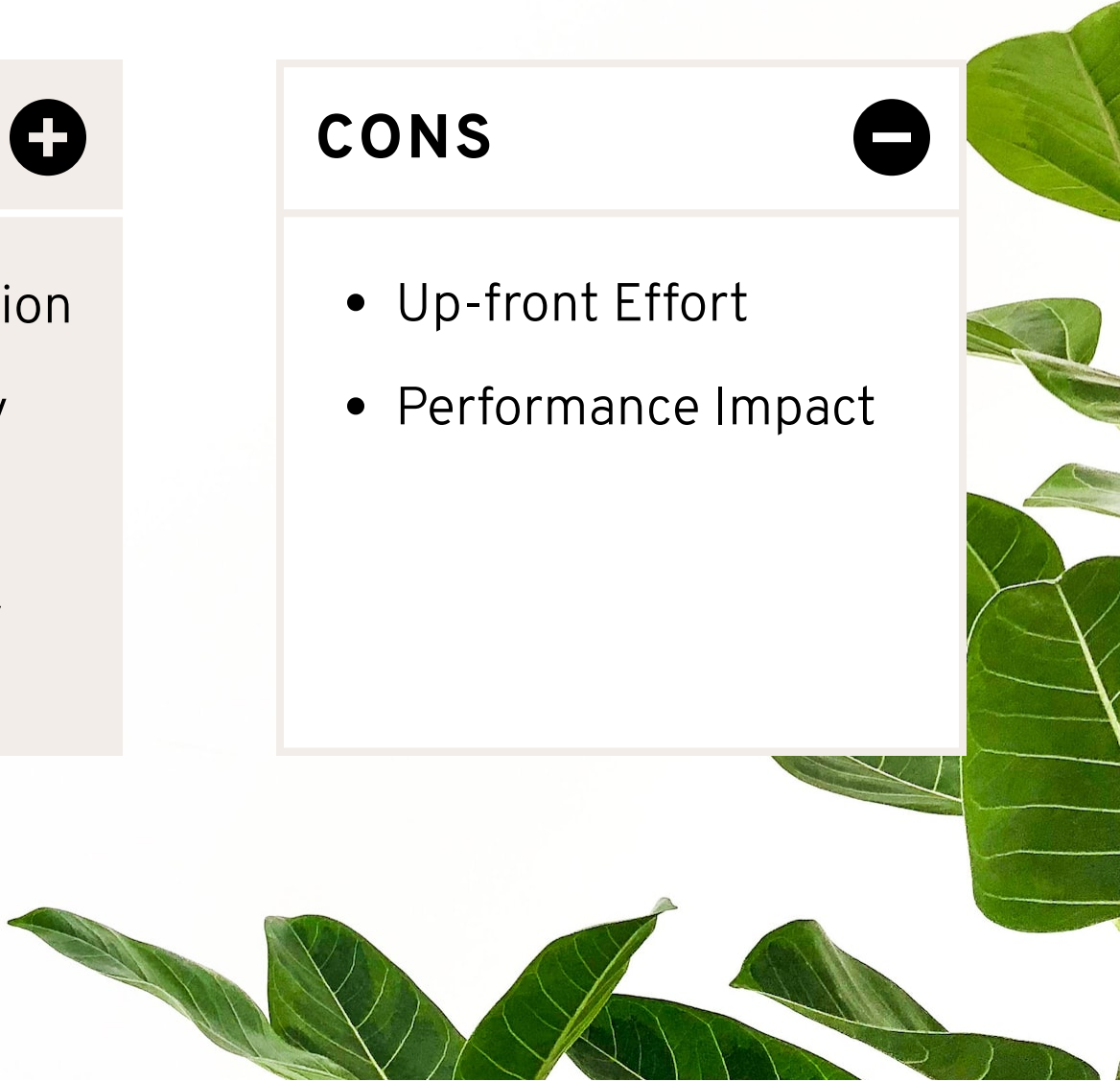
# PROS & CONS

## PROS ➕

- Flexible Configuration
- Environment Parity
- Team Alignment
- Mature Technology

## CONS ➖

- Up-front Effort
- Performance Impact

# WALKTHROUGH

Hands-on demonstration

# WORDPRESS BOILERPLATE

# DEFINITION

A set of reusable code that can be used as a foundation for building a WordPress site, theme, plugin, or other component. These templates often incorporate development best practises, helping the end product to be more **reliable** and **sustainable**.

By skipping much of "donkey work" involved in starting a new project, developers also become more **productive** and **agile** as they can start delivering value more quickly and consistently.

# SURVEY

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# MOTIVATIONS

✔ Lower Setup Time and Effort

✔ Higher Consistency

✔ Reduced Security Risk

✔ Improved Dependency Management

# SOLUTION

" *Bedrock is a modern boilerplate that aims to improve the structure, management, and security of WordPress projects. It is not a theme or a plugin, but rather a foundation upon which to build your WordPress site, bringing best practices from the broader web development industry to the WordPress ecosystem.*
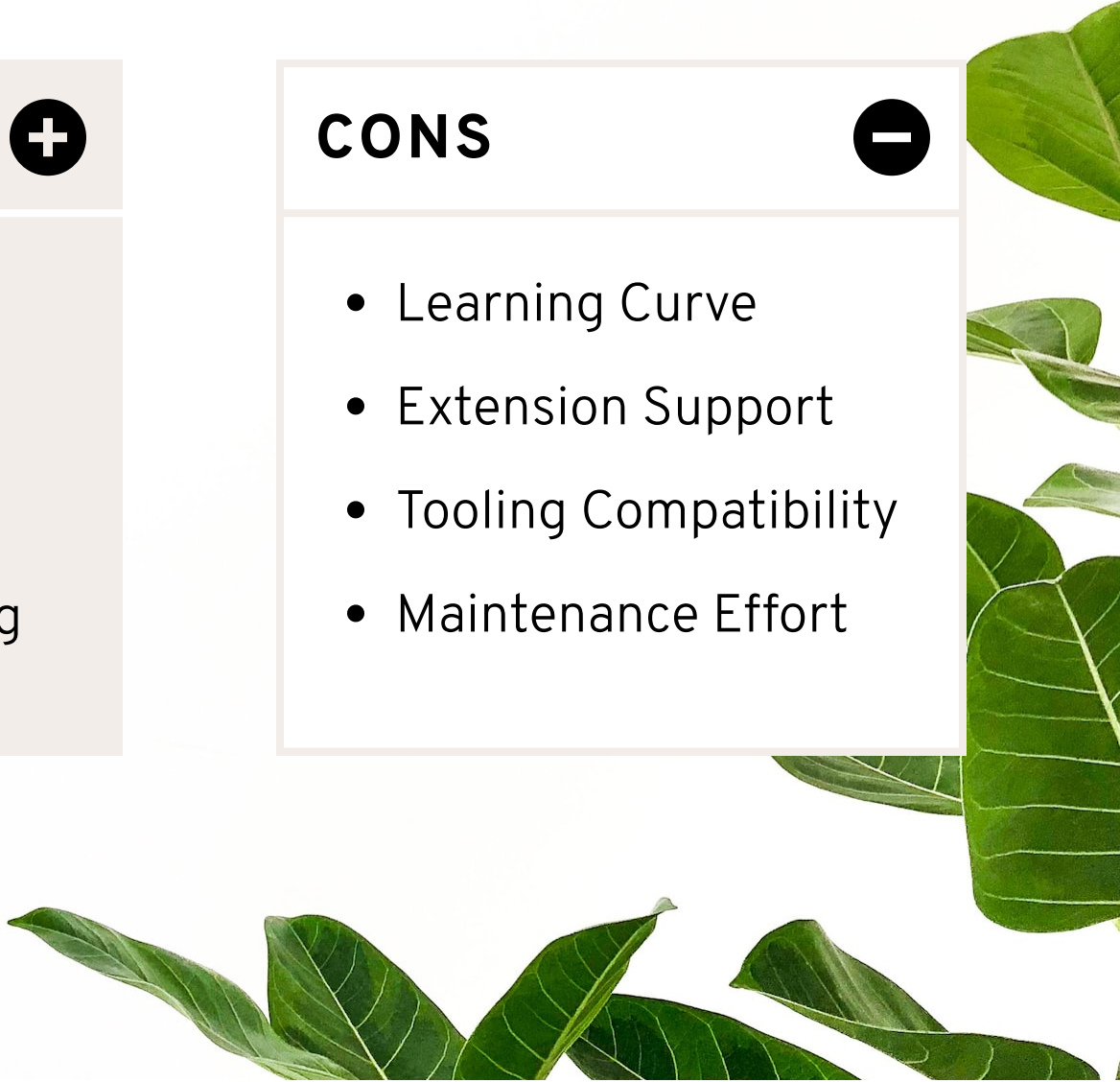
https://roots.io/bedrock

# PROS & CONS

## PROS ➕

- Git Integration
- State Management
- Enhanced Security
- Environment Config

## CONS ➖

- Learning Curve
- Extension Support
- Tooling Compatibility
- Maintenance Effort

# WALKTHROUGH

Hands-on demonstration

# CI/CD

# DEFINITION

CI/CD, which stands for Continuous Integration and Continuous Delivery, is a set of practices and tools that automatically test, build, and deploy code changes at any time in a **reliable** manner.

It ensures that every change you make to your code is thoroughly tested, integrated smoothly with existing code, and then swiftly and safely released to users, improving the **sustainability** of your solutions and increasing your team's **agility**.

# SURVEY

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# MOTIVATIONS

✔ Improved Production Stability

✔ Easier Releases

✔ Shorter Feedback Cycles

✔ Increased User Satisfaction

# SOLUTION

" *GitHub Actions is a continuous integration and continuous delivery (CI/CD) platform that allows developers to automate their build, test, and deployment pipelines directly within their code repositories. Users can run, create, and share reusable actions to perform almost any desired task in a completely customised workflow triggered by a wide range of events within any repository hosted on GitHub.*

https://docs.github.com/actions
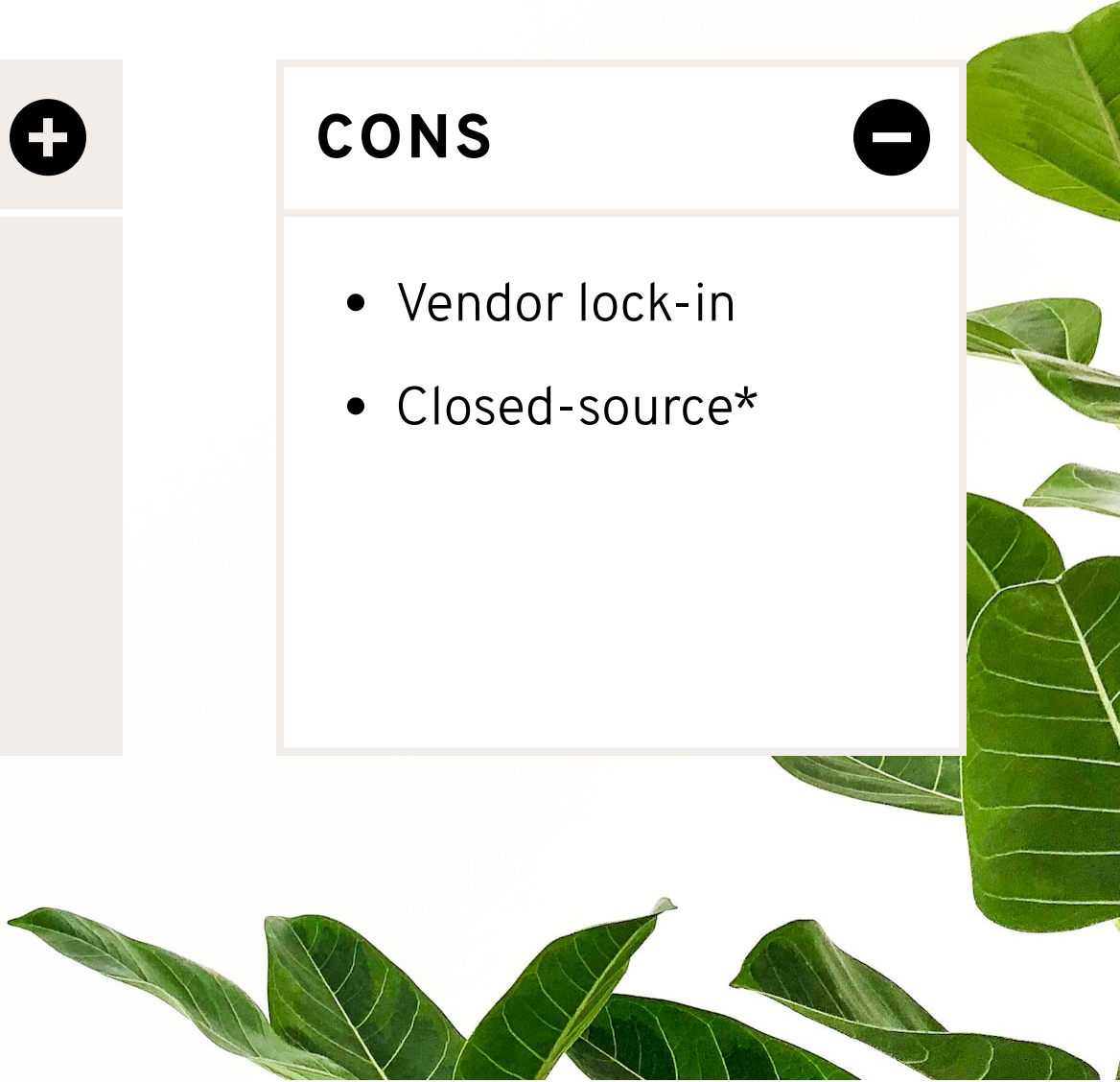
# PROS & CONS

## PROS ➕

- GitHub Integration

- Easy Setup

- Shared Actions

- Multi-OS Support

## CONS ➖

- Vendor lock-in

- Closed-source*

# WALKTHROUGH

Hands-on demonstration

# CONCLUSION

# SUMMARY

| | Source Code Management | Development Environment | WordPress Boilerplate | CI/CD |
|---|---|---|---|---|
| **Reliability** | ✅ | ✅ | ✅ | ✅ |
| **Productivity** | | ✅ | | |
| **Security** | | | ✅ | ✅ |
| **Agility** | ✅ | ✅ | ✅ | ✅ |
| **Sustainability** | ✅ | ✅ | ✅ | ✅ |

## NEXT STEPS

Other areas to consider and explore:

- Unit Testing
- Versioning
- Automated Documentation
- Commit Linting
- Custom WP-CLI Commands
- Monitoring & Logging

# THANK YOU 🔲🔲

You made it! Now go forth and build all the things 🧑🏿‍💻🧑🏻‍💻👩🏽‍💻



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