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1 Multi-Format Multi-Language Python Tutorial Plan

1.1 Output Formats

• **Book**: Web (HTML) + PDF versions

• Slides: RevealJS presentations for each chapter

• Languages: English and Japanese versions

1.2 Repository Structure

```
python-tutorial/
en/
                         # English content
    book/
                        # Book chapters (.qmd)
    slides/
                        # Slide presentations (.qmd)
    _quarto.yml
                        # English Quarto config
ja/
                         # Japanese content
    book/
                        # Book chapters (.qmd)
    slides/
                        # Slide presentations (.qmd)
    _quarto.yml
                        # Japanese Quarto config
shared/
                         # Shared resources
    code/
                        # Code examples
    data/
                        # Sample datasets
    images/
                        # Images and diagrams
_quarto.yml
                        # Main project config
plans/, .states/
                        # Project tracking
```

1.3 Quarto Configuration Strategy

1.3.1 Main Project (_quarto.yml)

- Define global settings
- Multi-language book project

• Output to docs/ for GitHub Pages

1.3.2 Language-Specific Configs

- **en/_quarto.yml**: English book + slides
- **ja/_quarto.yml**: Japanese book + slides

1.3.3 Output Targets

- 1. HTML Book: Interactive web version
- 2. **PDF Book**: Printable/downloadable version
- 3. RevealJS Slides: Chapter-by-chapter presentations
- 4. **GitHub Pages**: Host all formats

1.4 Content Synchronization

- Maintain parallel EN/JP content structure
- Shared code examples and datasets
- Consistent chapter numbering and exercises
- Cross-language navigation links

1.5 Build Process

- 1. Build English book + slides
- 2. Build Japanese book + slides
- 3. Deploy to GitHub Pages with language selector
- 4. Generate PDFs for both languages

1.6 Technical Implementation

- Quarto book project with multiple languages
- RevealJS for interactive slides
- Custom CSS for modern design
- GitHub Actions for automated builds
- GitHub Pages for hosting all formats