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# Introduction to XWiki

**Trainer – M. Hussaini**

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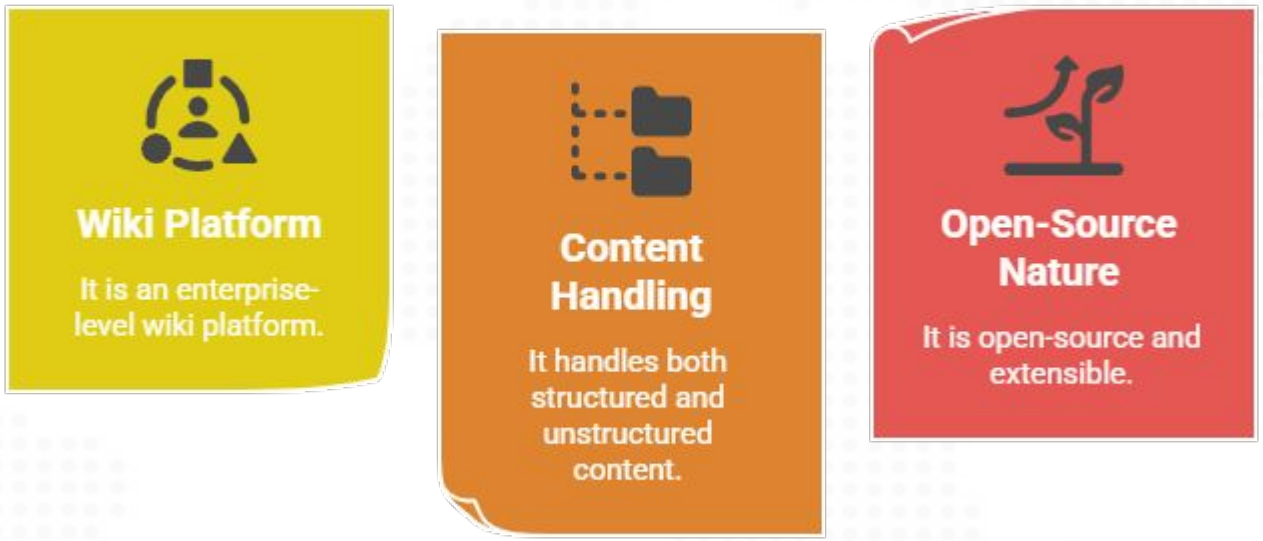
# What is XWiki?

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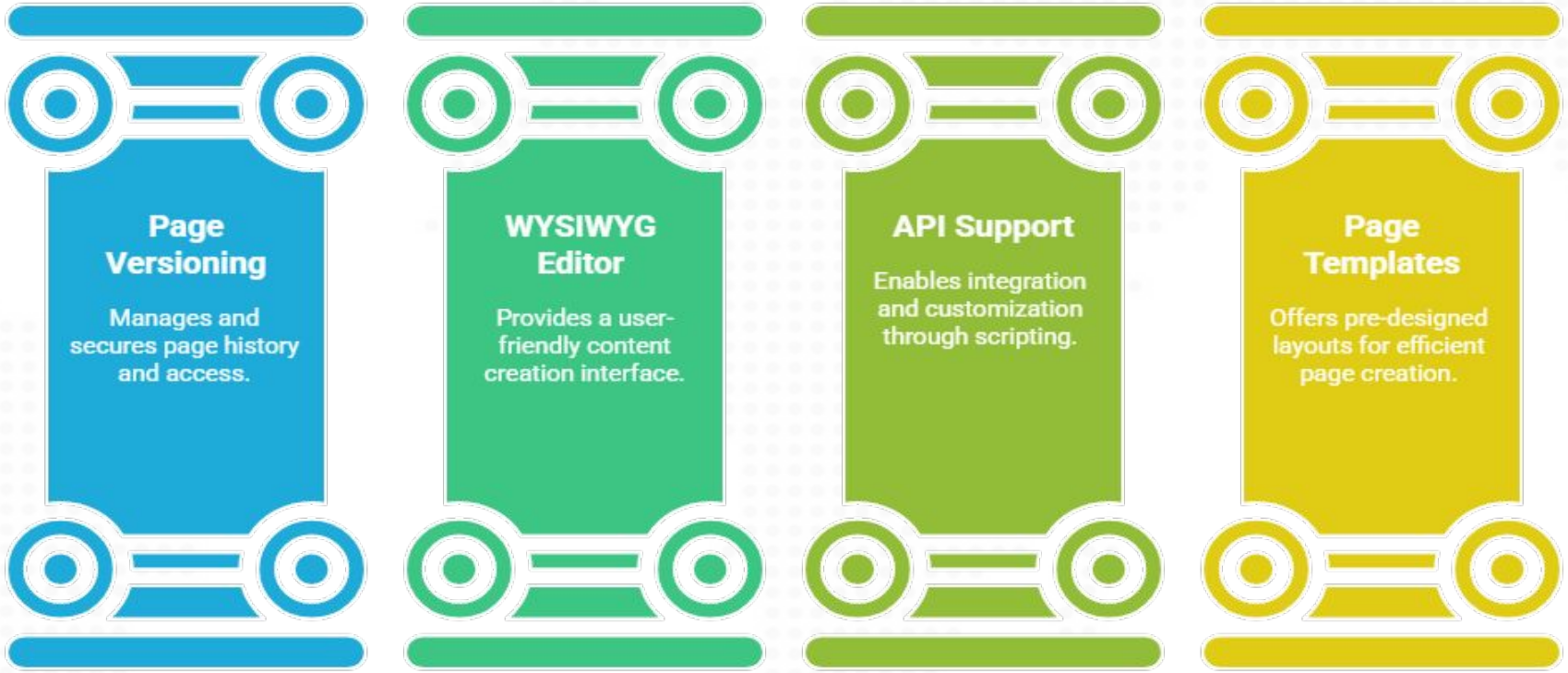
# Core Features

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# Use Cases in Organizations

**Collaborative Documentation**

Tools and processes for team-based document creation

**Custom Business Tools**

Tailored applications to meet specific business needs

**Intranet Knowledge Base**

A centralized repository for organizational knowledge

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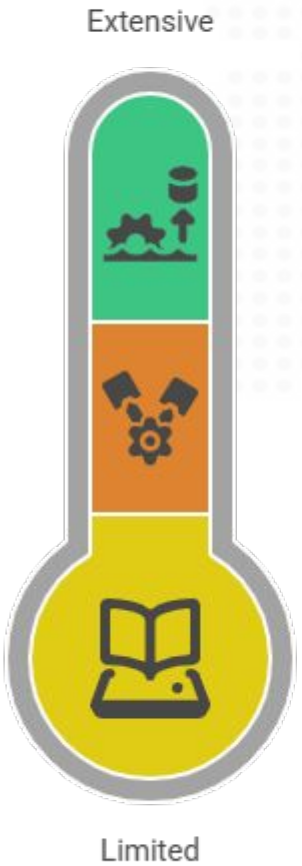
# Comparison with Other Wikis




**This Wiki**

Supports structured data and is extensible.

**Confluence**

Limited extensibility compared to others.

**MediaWiki**

Lacks structured data support.

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# Installation Options

**WAR Deployment**

Suitable for environments already using Tomcat, offering ease of integration.

**Docker and Debian Packages**

Provides flexibility and containerization benefits, ideal for scalable deployments.

**MySQL/PostgreSQL**

Offers robust database solutions for production environments.

**HSQLDB**

Best for development and testing due to its simplicity and ease of setup.

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# Installing and Configuring XWiki

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# User & Permission Configuration

1

## User Creation

Create users and groups within the system.

2

## Rights Assignment

Set view, edit, and admin rights for users.

3

## Access Control

Control access at the page and space level.

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# Understanding XWiki Development Model

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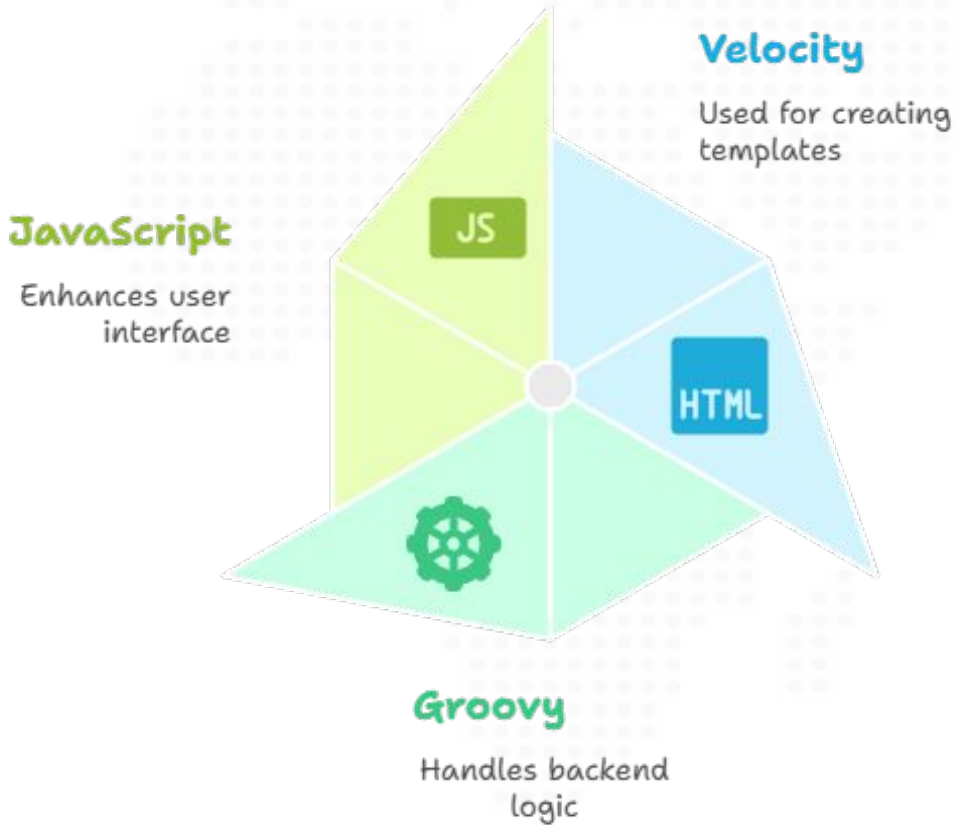
# Supported Scripting Languages

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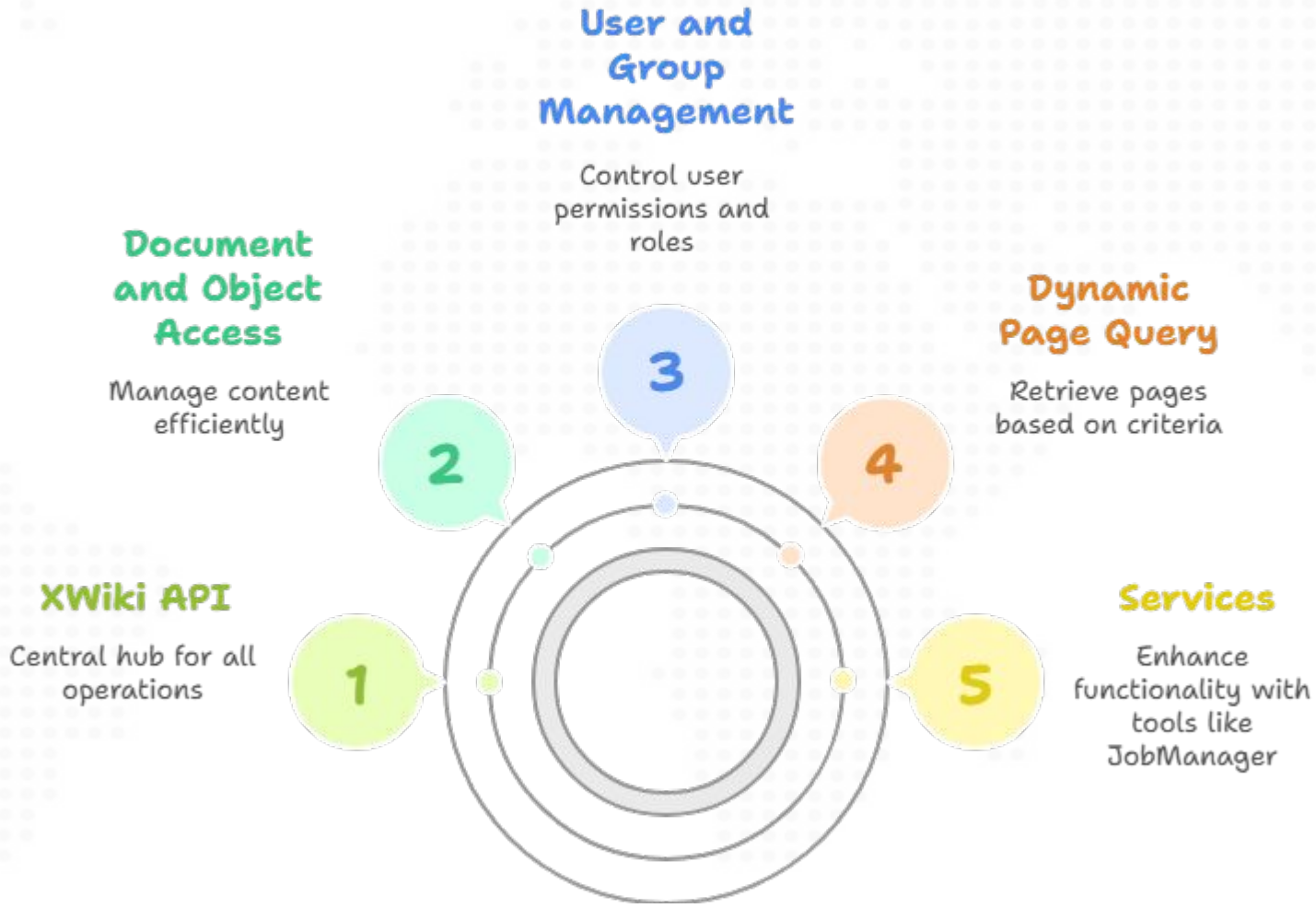
# XWiki API Overview

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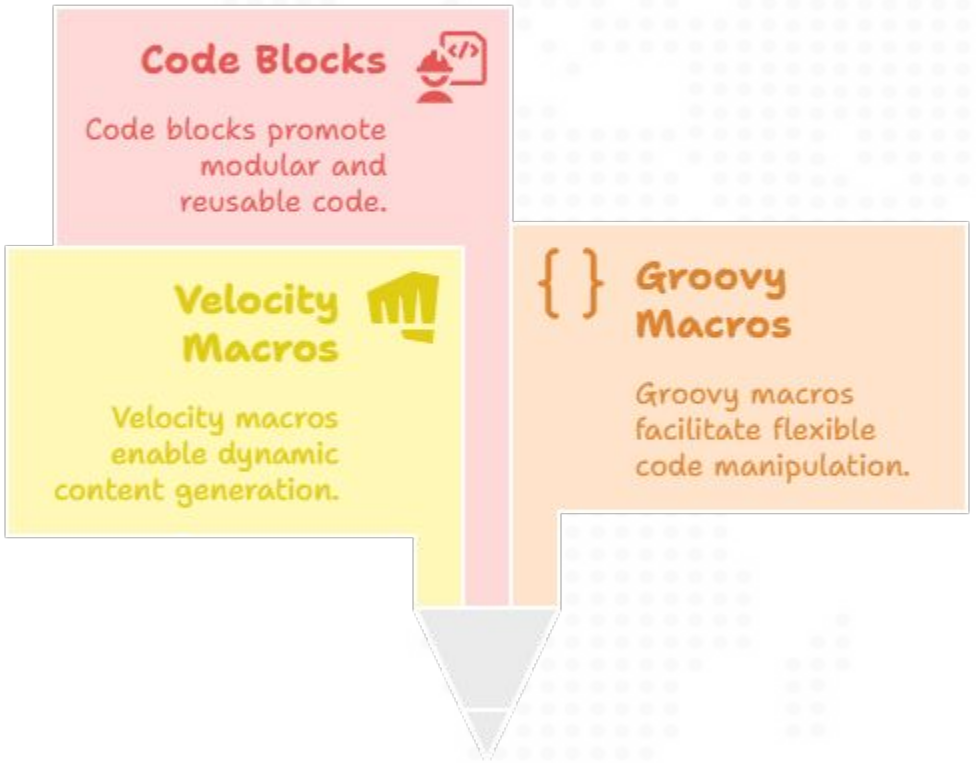
# Macros & Reusability

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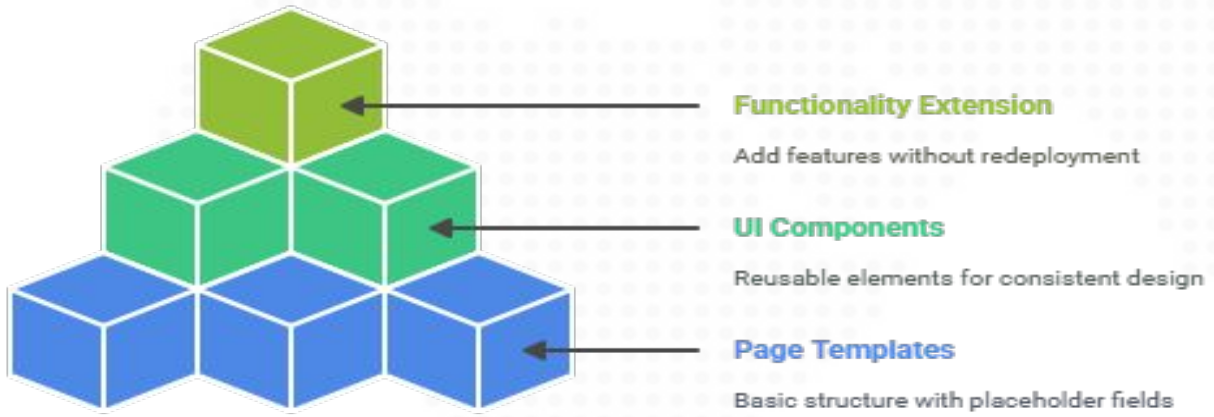
# Extend functionality without redeploying

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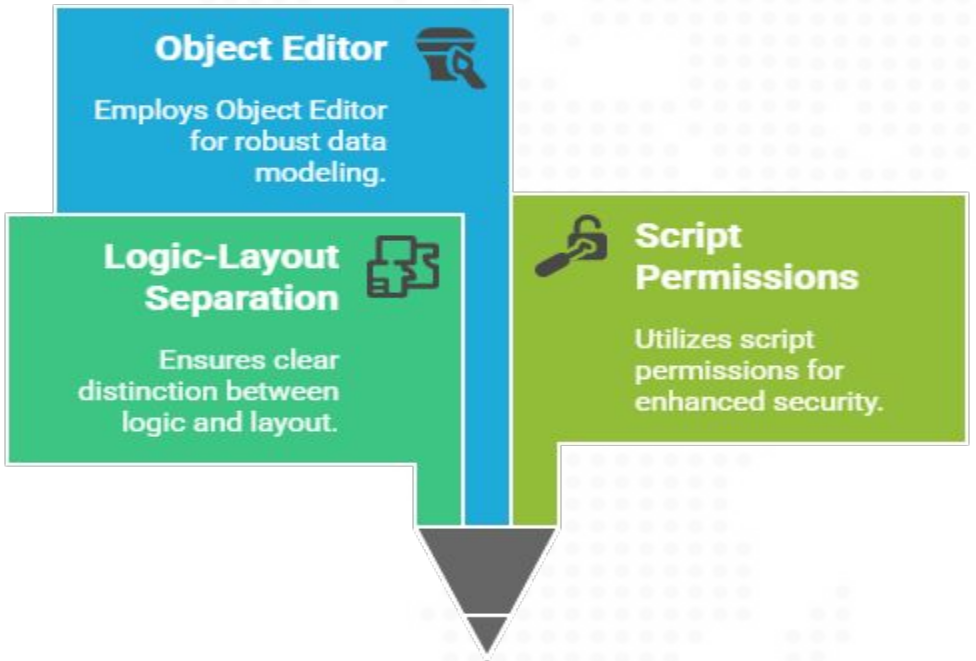
# Good Practices

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# Developing Custom XWiki Applications

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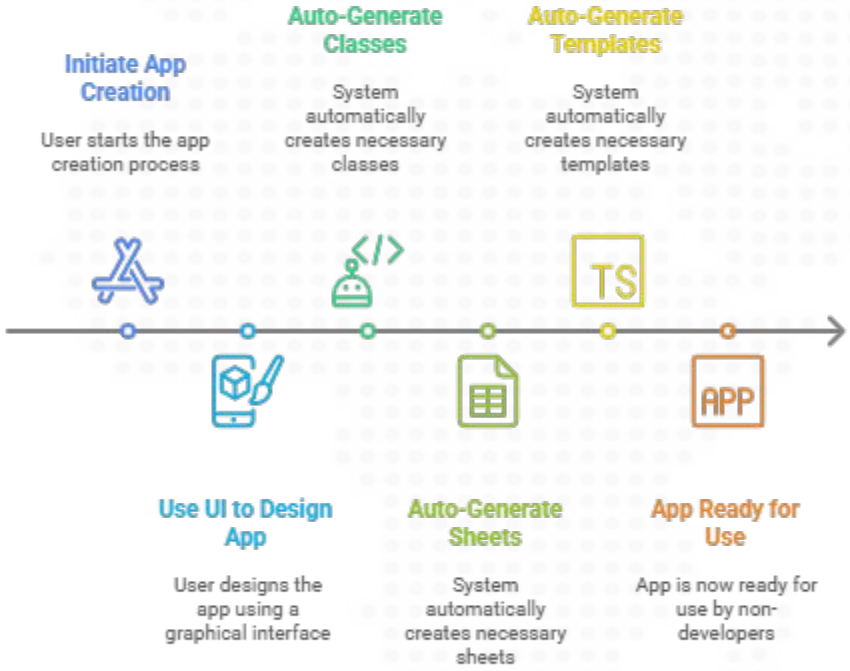
# App Within Minutes (AWM)

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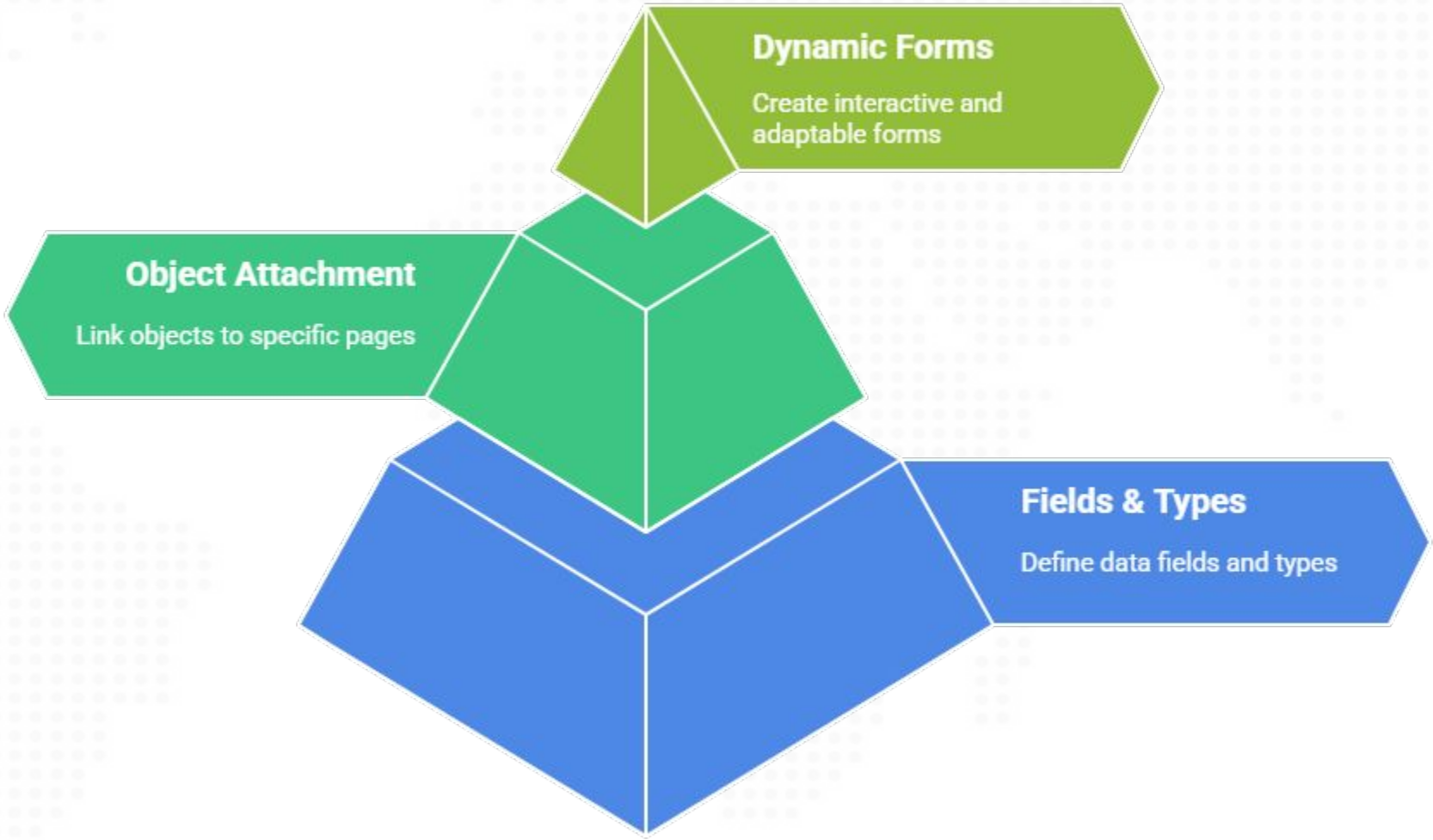
# Classes and Objects

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# Dashboards and Views

### LiveTables

Interactive tables for filtering data

### Charts and Graphs

Visual representations of data trends

### Macros and Scripting

Customization tools for advanced users

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# Extending XWiki with Plugins and Extensions

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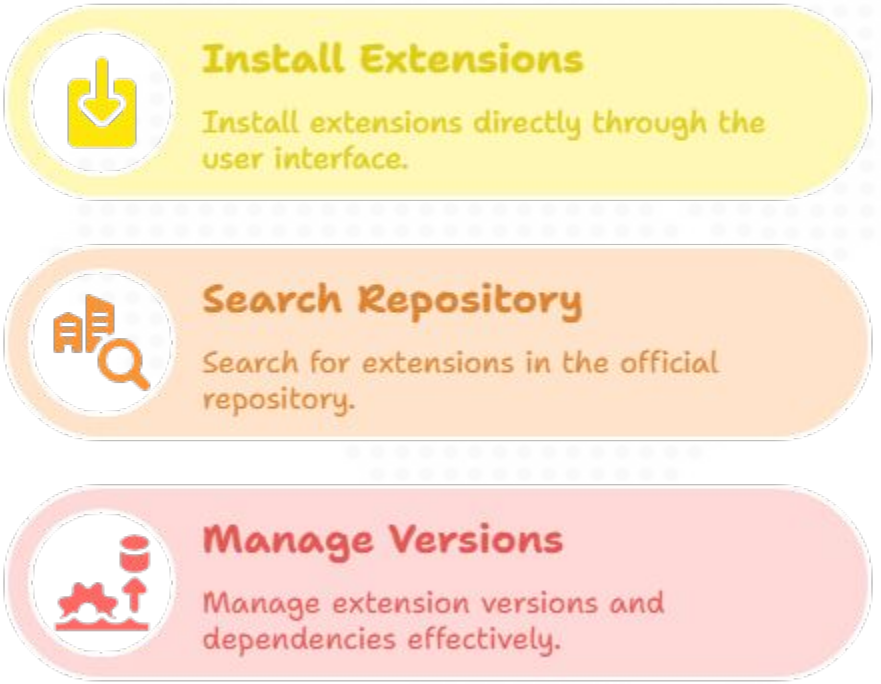
# Extension Manager

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# Building Custom Extensions

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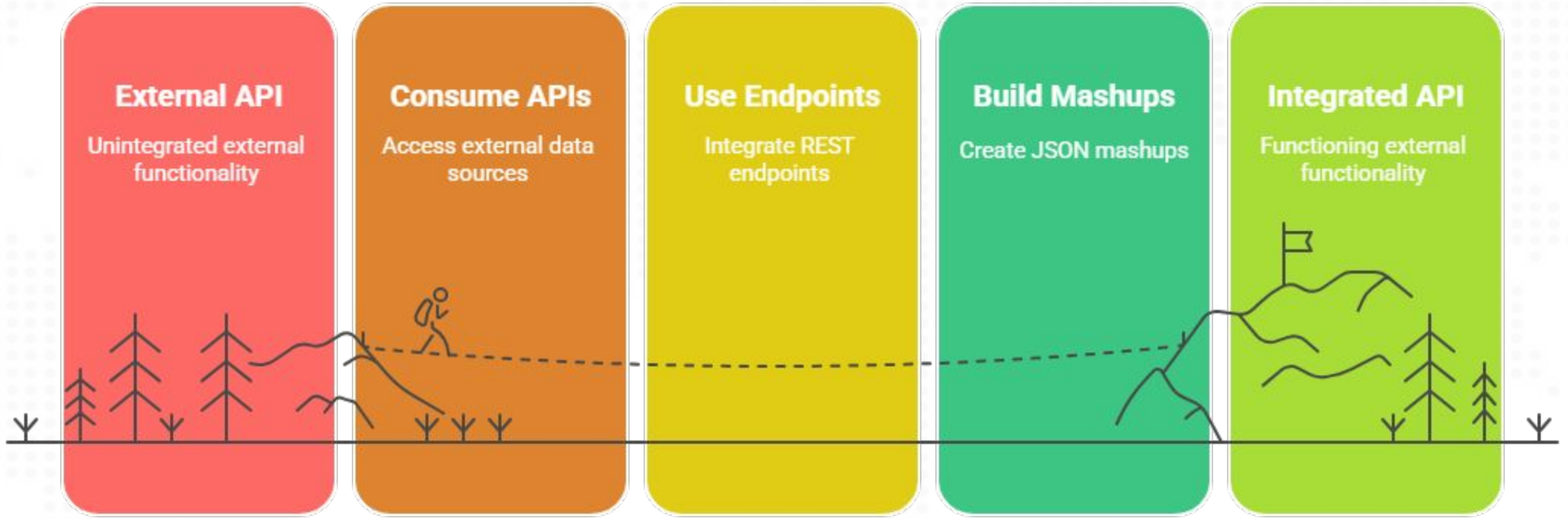
# REST API Integration

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# Adding Third-party JS Libraries

**WebJars**

A package manager for web dependencies

**Chart.js**

A library for creating charts and graphs

**D3.js**

A library for manipulating the DOM with data

**Template Integrity**

Maintaining the structure of core templates

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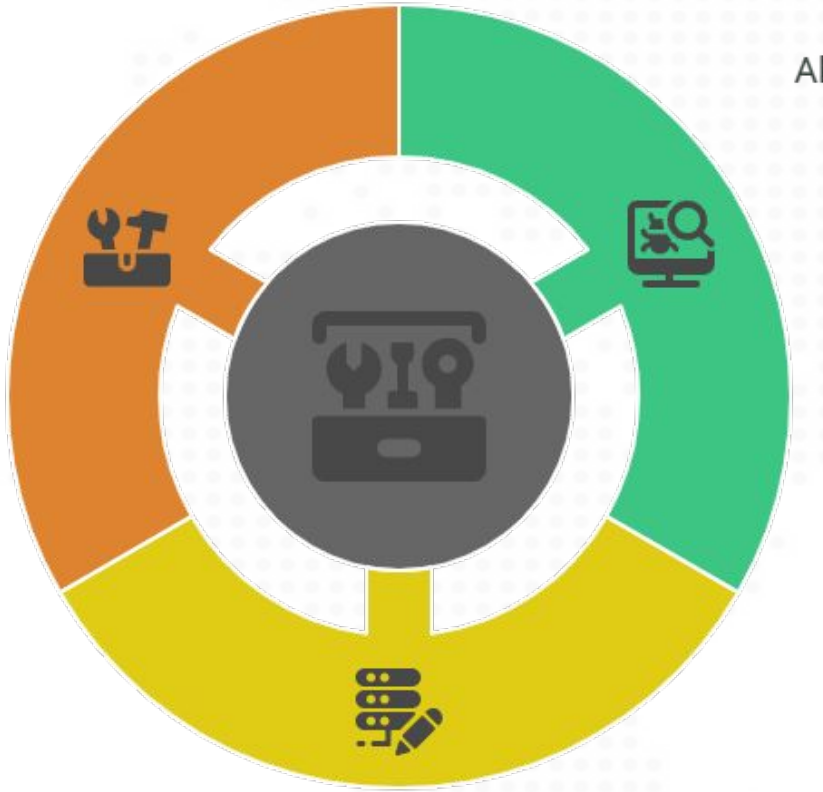
# Developer Tools

**Admin Tools**

Offers tools to manage cache and logs for system maintenance.



**Debug Panel**

Allows developers to inspect and debug code in real-time.

**Script Editor**

Provides a platform to write and edit scripts for XWiki.

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# Security and Performance Optimization

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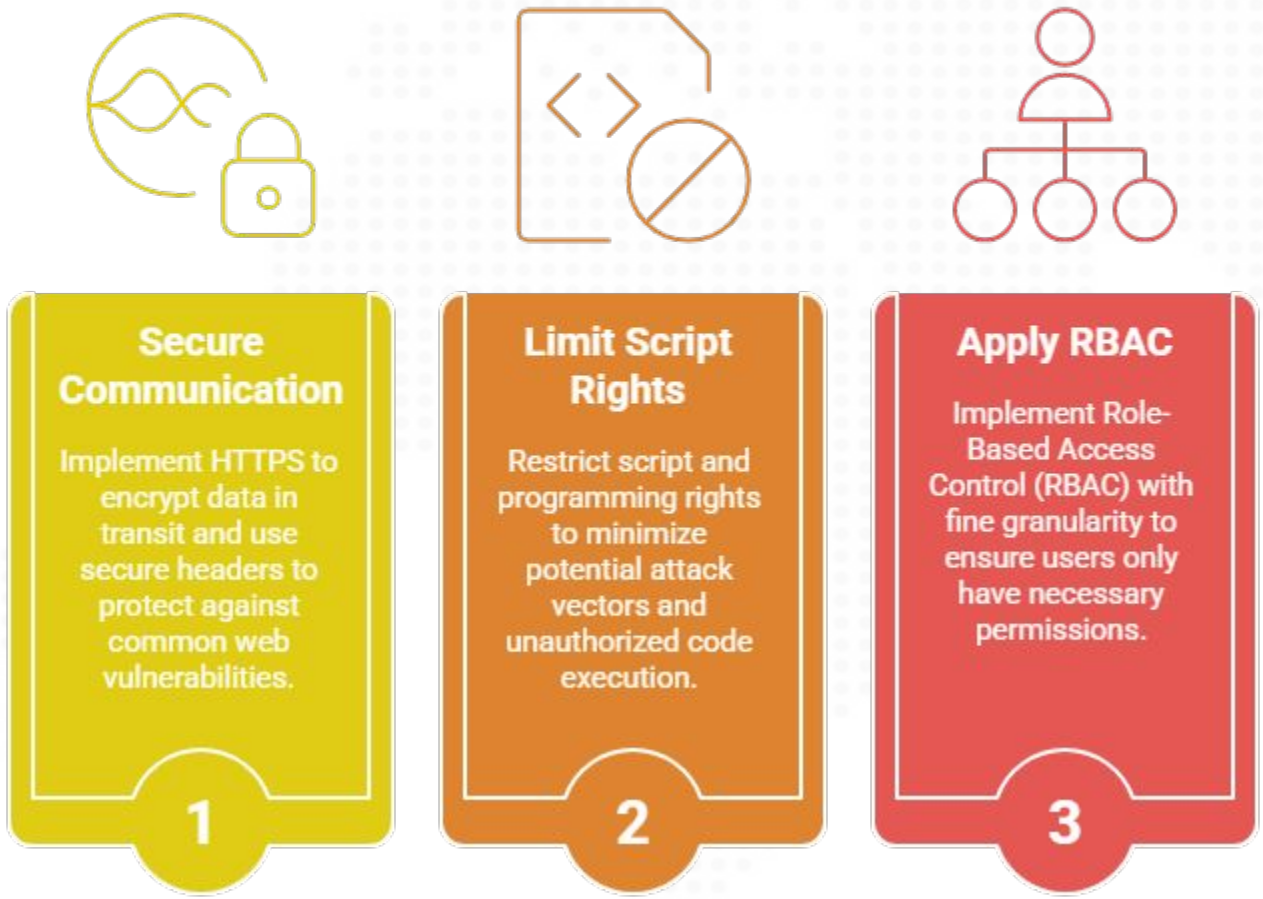
# Security Best Practices

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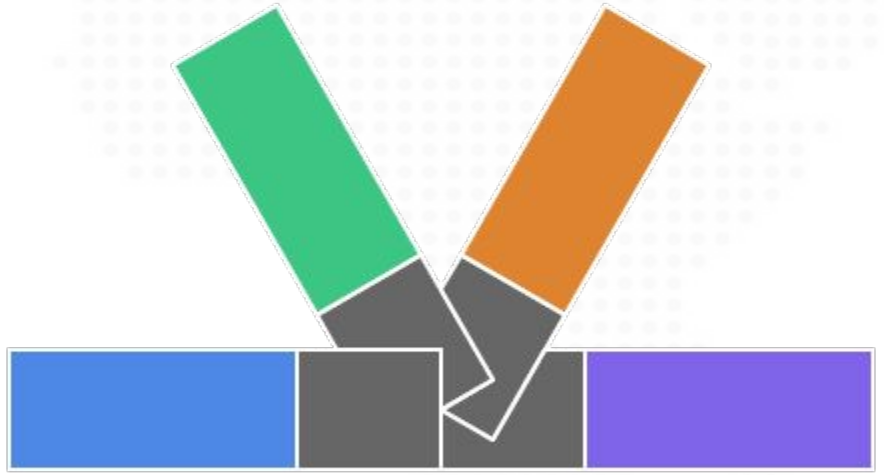
# Performance & Backup

### Schedule Backups

Ensures data recovery in case of failures.

### Optimize Queries

Improves database efficiency and speed.



### Implement Caching

Enhances performance by storing frequently accessed data.

### Manage Attachments

Reduces storage and improves access speed.

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# Advanced Integration and Automation

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# External Integrations

### LDAP/Active Directory

Integrate with LDAP or Active Directory for user authentication and management.

### CRM/ERP Linking

Connect with CRM/ERP systems to synchronize data and streamline workflows.

### SSO Integration

Enable Single Sign-On using Keycloak or CAS for seamless access.

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# Workflow Automation

01

**Groovy Jobs**

Initiating periodic tasks using Groovy scripts

02

**Events and WatchList**

Monitoring events and managing watchlists

03

**Email Notifications**

Sending email notifications based on triggers

04

**Triggers**

Activating actions based on specific conditions

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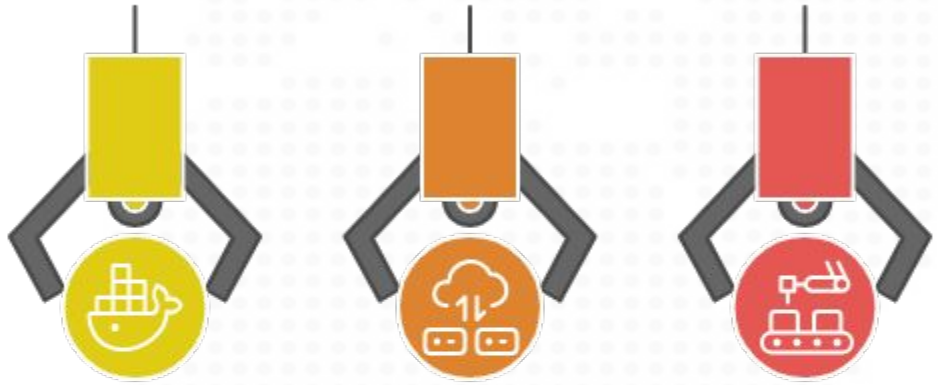
# Cloud Deployment



**Docker Deployment**

Utilizing Docker containers for deployment, ensuring consistency.

**Database Options**

Integration with AWS RDS or GCP Cloud SQL for data storage.

**CI/CD Pipelines**

Implementing CI/CD pipelines to automate updates and deployments.

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# Practical Workshop

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# Real-world Scenario

**Task Tracker**

Central system for task management

**Dashboards**

Visual tools for task monitoring

**Permissions**

Access control for task management

**AWM and Scripting**

Tools for task tracker development

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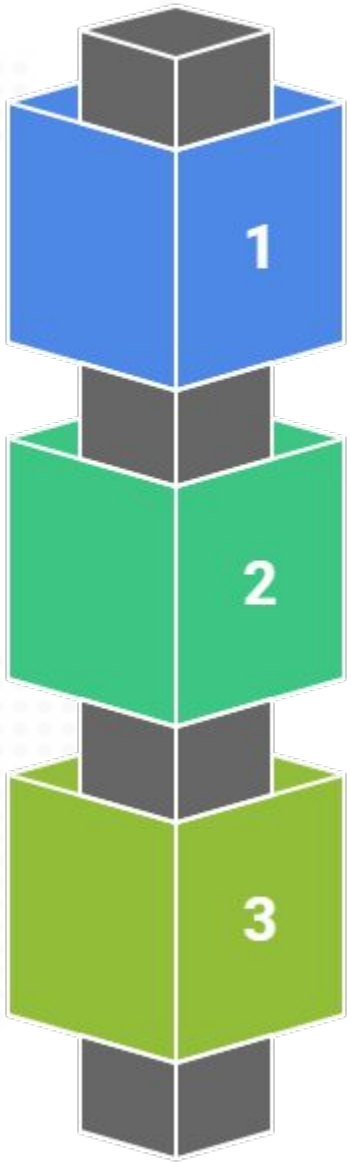
# Create the Data Model




### Define Classes

Establish the structure of data entities like Task and Project.

### Use Pickers

Implement list and user pickers for data selection.

### Generate UI

Automatically create the user interface for data interaction.

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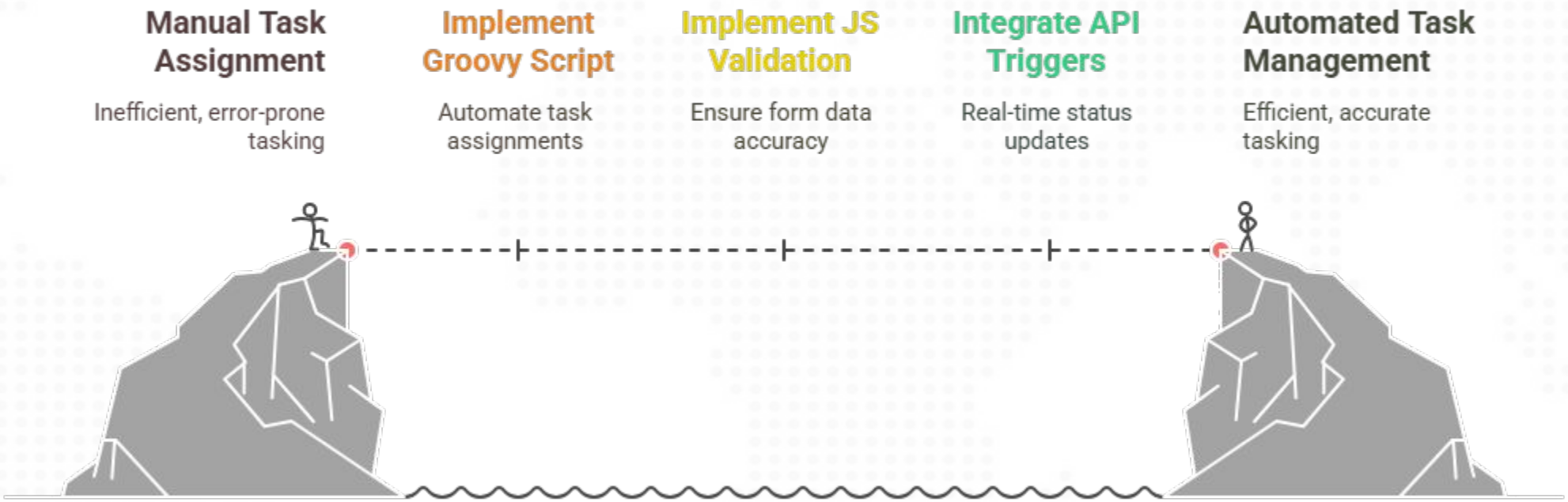
# Enhance with Automation

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# Add Reporting

### LiveTables

Filterable views using
LiveTables for data analysis.

### Weekly summary

Receive a weekly summary of
reports via email updates.

### Embed charts

Embed charts to visually track
project or task status.

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# Iteration and Feedback

01 Collect User Input

02 Update Sheets and Templates

03 Track Usage

04 Refine Features

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# Summary and Next Steps

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# Key Takeaways

**Flexibility**

XWiki's adaptability to different needs

**Scripting**

Ability to automate tasks and processes

**Custom Apps**

Tailoring solutions to specific requirements

**APIs**

Integration with other systems and services

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# What's Next?

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# Thank you



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