

SmartDrug Drupal 10 upgrade

Upgrading SmartDrug to Drupal 10 is a crucial step in keeping our platform secure, efficient, and aligned with the latest web standards. As technology rapidly advances, it's essential to update our systems to protect against emerging security threats and to leverage new features that enhance user experience. This upgrade ensures that SmartDrug remains robust against vulnerabilities, meets modern web practices, and continues to provide a reliable service in an ever-evolving digital landscape.

Core Upgrade and Essential Module Updates

Tasks

- Upgrade the core system to Drupal 10 and update only the essential modules necessary for site functionality.
- Where appropriate replace contributed modules with custom code

Benefits

- Ensures security, compatibility, and a solid foundation for future enhancements.

Refactoring Drupal Configuration

Tasks

- **Comprehensive Audit of Current Configuration:** Conduct a thorough review of all existing Drupal configurations, including content types, views, fields, panels, and custom modules.
- **Identify Deprecated and Obsolete Elements:** Detect any configurations or modules that are deprecated or no longer supported in Drupal 10.
- **Rearchitect Configuration Structure:** Redesign the configuration architecture to align with Drupal 10's standards and best practices.
- **Utilise Configuration Management Tools:** Leverage Drupal's Configuration Management system to export, manage, and import configurations effectively between environments.
- **Optimise for Performance:** Reevaluate configurations to optimise site performance, including caching strategies and database queries.

Modern Code Structure

Tasks

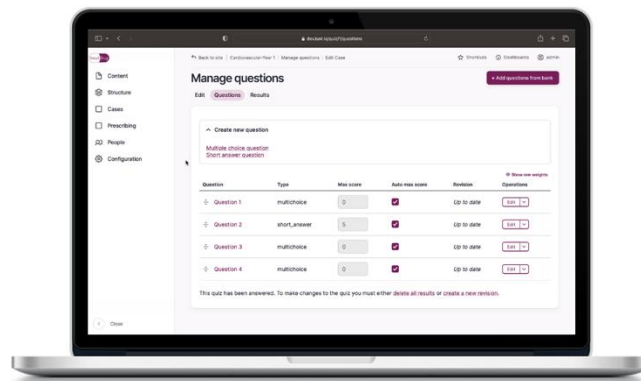
- Refactor custom code where necessary to leverage PHP 8 features and Symfony components.

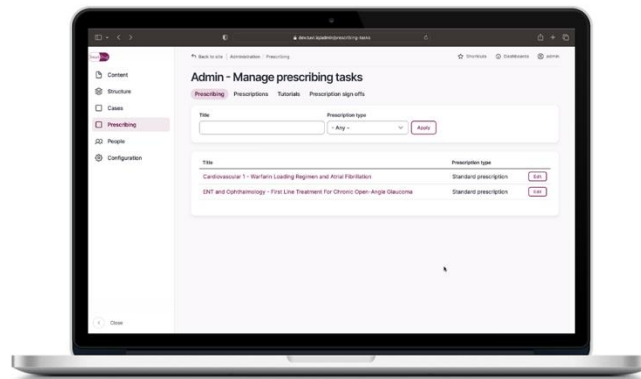
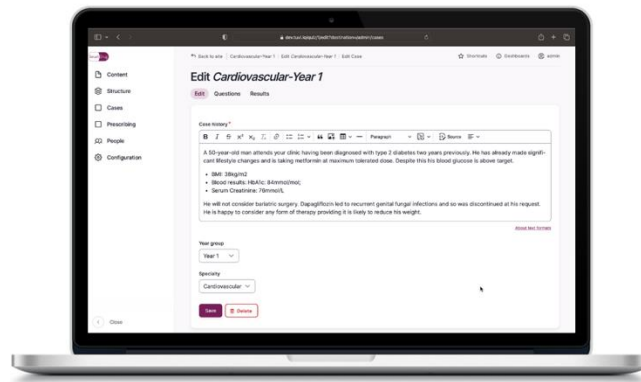
Benefits

- Improves performance and maintainability with minimal additional development effort.

Enhanced Admin Interface with modern admin theming

Best practice with content management and administration interfaces have moved on since the creation of the SmartDrug product. We will provide a much more accessible and streamlined user experience for content administration.





Tasks

- Use the GIN admin theme to improve the backend experience for administrators.

Benefits

- Enhances usability for managing cases and questions with minimal modifications.

Streamlined Login with Microsoft Active Directory

Tasks

- Integrate Single Sign-On (SSO) using SAML and the **simpleSAMLphp** library.

Addition

- Move to a **self-signed certificate** for the authentication process.

Benefits

- Provides secure authentication with Microsoft Active Directory while reducing costs associated with purchasing a certificate.

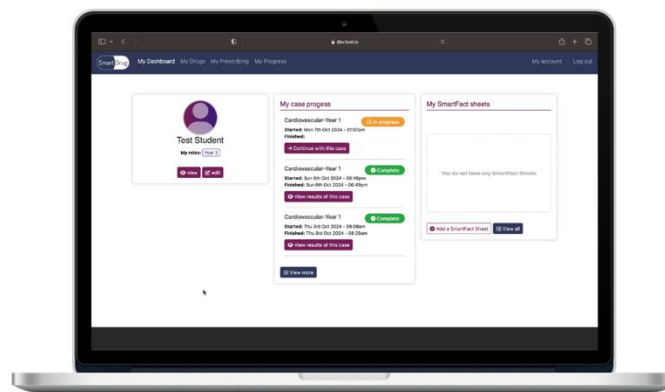
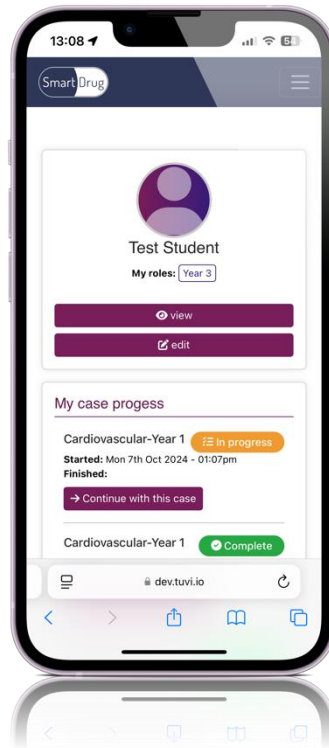
Essential Testing

Tasks

- Perform critical testing on core functionalities, set up a basic staging environment, and plan for backups.

Mobile-First Front End with Improved Layout for Prescription Pages

Whilst the current site does function well on a mobile we can improve this layout in many areas:

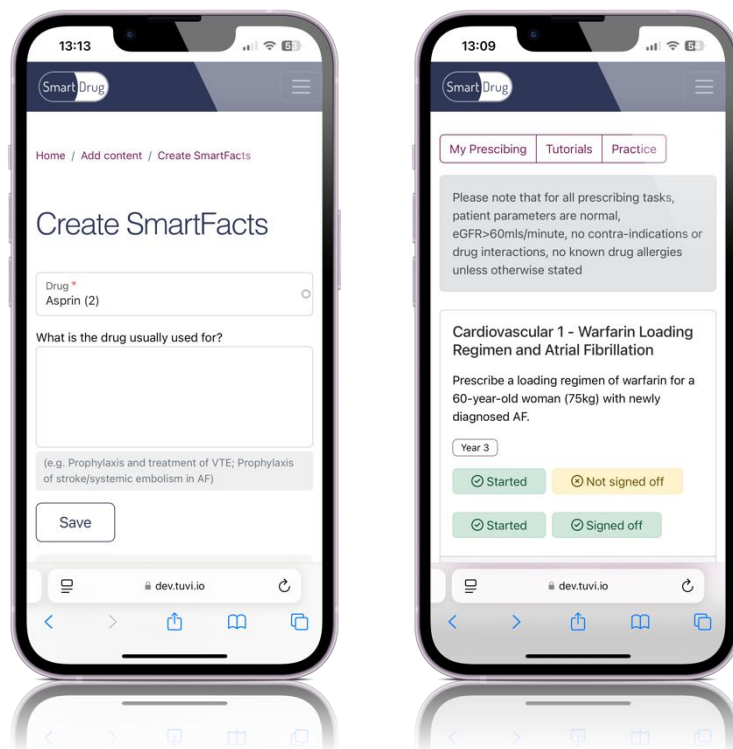


Tasks

- Redesign the prescription pages with a mobile-first approach.
- Optimise layouts and navigation for small screens.
- Ensure fast loading times and responsiveness on mobile devices.

Benefits

- Enhances user experience for mobile users.
- Improves accessibility and usability of prescription pages on all devices.
- Aligns with modern web design practices, catering to the increasing number of mobile users.



Data Migration of Current Cases and Prescriptions

Tasks

- **Data Audit:** Examine the existing data structures for cases and prescriptions to identify all elements that need migration.
- **Migration Plan:** Develop a detailed plan outlining the steps and tools required for data migration.
- **Data Mapping:** Map current data fields to the new Drupal 10 schema to ensure compatibility.
- **Use Drupal's Migrate API:** Leverage Drupal's built-in migration tools to streamline the process.
- **Testing Migration Scripts:** Run tests to validate the migration process and ensure data integrity.
- **Perform Migration:** Execute the migration during a low-traffic period to minimise disruption.
- **Post-Migration Verification:** Check the migrated data thoroughly to confirm accuracy and completeness.

Benefits

- **Data Integrity:** Ensures all existing cases and prescriptions are preserved accurately.
- **Seamless Transition:** Minimises downtime and user impact during the upgrade.
- **Improved Data Structure:** Takes advantage of Drupal 10's enhanced data handling capabilities.

Risks and mitigations

- **Impact on Users**

Unplanned or extended downtime disrupting the users.

- **Data Integrity Concerns**

We need to make sure that the student's case and prescription data is accurately transferred to the new system

Mitigation Strategies

- **Advance Planning:** Schedule upgrades during off-peak hours and clearly communicate the planned downtime to all stakeholders well in advance.
- **Efficient Execution:** Prepare detailed upgrade procedures and conduct rehearsals in a staging environment to minimise actual downtime.
- **Robust Backup Systems:** Ensure that comprehensive backups are in place so that data can be quickly restored in the event of an issue during the upgrade.
- **Real-Time Monitoring:** Use monitoring tools to track the system's performance during the upgrade, allowing for immediate action if problems arise.
- **Contingency Plans:** Develop and document fallback procedures to revert to the previous stable version if critical issues are encountered.
- **Post-Upgrade Support:** Allocate resources for immediate troubleshooting post-upgrade to address any unforeseen issues promptly.

By proactively addressing the risks associated with delayed downtime, we can ensure that the upgrade to Drupal 10 proceeds smoothly, minimising disruptions and maintaining the trust and confidence of all SmartDrug users.

Updated Cost Breakdown for SmartDrug Drupal 10 Upgrade

1. Core Upgrade and Essential Module Updates

- a. Estimated Cost: £1,100 – £1,400

2. Modern Code Structure Refactoring

- a. Estimated Cost: £800 – £1,000

3. UI Improvements Using GIN Theme and Enhanced Admin Interface

- a. Estimated Cost: £700 – £1,100

4. Mobile-First Front End

- a. Estimated Cost: £300 – £600

5. Data Migration of Current Cases and Prescriptions

- a. Estimated Cost: £1,600 – £1,800

6. Refactoring Drupal Configuration

- a. Estimated Cost: £2,600 – £2,800
- b. **Note:** This remains one of the biggest tasks in the project.

7. Essential Testing and Deployment

- a. Estimated Cost: £500 – £700

Total Estimated Cost: £7,600 – £9,400