



ENTERPRISE SOFTWARE DEVELOPMENT

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SOLO ASSIGNMENT

OPENREADS WEB APPLICATION

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Cloud Deployment URL: <https://durga19.pythonanywhere.com>

GitHub Repository: <https://github.com/durga-0219/openreads-django-solo> , [Readme File](#)

Design:

The application is built using the Django framework with a modular structure based on templates, models, and views. It features a visually styled homepage, login/registration pages, and a custom admin dashboard with Matplotlib-based charts. Navigation includes filterable book listings by title, author, and year, with an interactive cart and ordering system.

Development:

- Implemented custom login, registration (UserCreationForm), and user role-based view protection
- Built book browsing, detail views, cart management with quantity controls, and order placement (single & bulk)
- Developed a superuser-only admin dashboard with book/user/order stats, Seaborn/Matplotlib charts, CSV exports, and filtering by title/author/year
- Designed and linked models: Book, Author, and Order
- Secured all views using @login_required and restricted admin tools to superusers

Implementation:

- Used Django QuerySets for dynamic filtering by title, author, and year
- Displayed login, registration, and admin alerts using the messages framework
- Integrated image URLs and book descriptions on detail pages.
- Collected static files via collectstatic for deployment
- Deployed on PythonAnywhere with secure HTTPS and full CSRF protection

Installation:

git clone <https://github.com/durga-0219/openreads-django-solo.git>, cd openreads-django-solo, python3.10 -m venv venv, source venv/bin/activate, pip install -r requirements.txt, python manage.py migrate, python manage.py runserver 0.0.0.0:8000

User & Testing:

- Users must register and log in to access the platform
- They can:
 - View book catalog, Add/remove books from cart, Place orders
- Admins can:
 - View stats and users, Add/edit/delete books, Export data
- Tested for form validation, user roles, ordering logic, and CSRF protection

Deployment:

Deployed on PythonAnywhere using Django's WSGI setup, static file mapping, and HTTPS enforcement for CSRF protection.

Summary:

OpenReads is a Django web application for browsing and ordering books using a cleaned open dataset. It includes authentication, admin dashboards, and dynamic features. The project meets all solo assignment requirements and is deployed on PythonAnywhere.