NestChange Project

Timeline: Dec 6 - Dec 17 (11 days)

Team Meeting: December 10th

Team Structure & Role Assignment

Dev 1

- Core framework implementation
- Complex features (authentication, security)
- Code review and mentoring
- Database architecture

Dev 2

- Frontend views refinement
- Simple CRUD operations
- Form validation
- Testing

Dev 3

- Listing management features
- Search and filter implementation
- Image upload handling
- Documentation

Dev 4

- Profile management
- Document upload features
- Admin panel views
- Testing support

Week 1: Foundation (Dec 6 - Dec 10)

Day 1 (Dec 6 - Friday) - Setup & Database

Dev 1:

- Set up MySQL database using `temp/schema_mysql.sql`
- Create `app/config.php` for database credentials and app settings
- Implement `app/core/database.php` with PDO connection and query methods

- Create base Model class in `app/core/model.php`

Dev 2:

- Install XAMPP/WAMP/MAMP and verify PHP/MySQL working
- Create `public/uploads/` folder structure (listings, documents, profiles)
- Set proper folder permissions
- Test database connection

Dev 3:

- Review existing views in `app/views/`
- Create shared layout template in `app/views/layouts/main.php`
- Document the routing system from `public/index.php`

Dev 4:

- Review database schema in `temp/docs/DB_SCHEMA.md`
- Create database seed data (test users, attributes, services)
- Set up git repository and push initial code

Deliverable: Database running, core classes skeleton, team sync on structure

---

Day 2 (Dec 7 - Saturday) - Core Framework

Dev 1:

- Complete `app/core/controller.php` base class
- Implement session management and security helpers
- Create validation helper class `app/helpers/Validator.php`
- Implement `app/models/user.php` with CRUD methods

Dev 2:

- Refactor auth views (`app/views/auth/signin.php`, `app/views/auth/register.php`) to use layout
- Add form validation markup (client-side)
- Create error/success message display components

Dev 3:

- Create `app/helpers/FileUpload.php` helper for image uploads
- Implement basic file validation (size, type, security)
- Test file upload to `public/uploads/` directory

Dev 4:

- Refactor listing views to use layout template
- Add proper form structure to `app/views/listings/addListing.php`
- Document file upload requirements

Deliverable: Core framework functional, helpers ready, views using layout system

---

Day 3 (Dec 8 - Sunday) - Authentication System

Dev 1:

- Implement `app/controllers/authController.php` completely
- Register method (password hashing, validation)
- Login method (session management)
- Logout method
- Password reset functionality
- Create authentication middleware
- Implement CSRF protection

Dev 2:

- Connect registration form to controller
- Add validation error display
- Test complete registration flow
- Create test user accounts

Dev 3:

- Connect login form to controller
- Implement "Remember Me" functionality
- Test login/logout flows
- Document authentication process

Dev 4:

- Implement forgot password form
- Connect to email sending (or file-based for dev)
- Test password reset flow
- Create authentication test cases

Deliverable: Complete working authentication system with all flows tested

---

Day 4 (Dec 9 - Monday) - User Models & Profiles

Dev 1:

- Complete `app/models/listing.php` with all CRUD methods
- Implement `app/models/attribute.php` and `app/models/service.php`
- Create database relationship methods (listing with images, attributes, services)
- Code review team's work

Dev 2:

- Implement `app/controllers/profileController.php`
- Create profile view functionality
- Add profile edit functionality
- Implement profile picture upload

Dev 3:

- Connect profile views to controller
- Test profile editing with image upload
- Create profile validation
- Implement public profile view

Dev 4:

- Create seed data for listings (5-10 test listings)
- Insert attributes and services into database
- Test data relationships
- Document data structure

Deliverable: User profiles working, listing models ready, test data in database

---

Day 5 (Dec 10 - Tuesday) - TEAM MEETING & Sprint Review

Dev 1:

- Implement `app/controllers/listingControler.php` (note: fix typo in filename)
- Create listing creation functionality
- Implement listing image upload (multiple images)

Dev 2:

- Fix any bugs identified in team meeting
- Refactor code based on code review feedback
- Update documentation

Dev 3:

- Test all authentication flows thoroughly
- Create test accounts with different roles
- Document test cases and results

Dev 4:

- Prepare database for Week 2 features
- Create application and exchange tables if needed
- Test data integrity

Deliverable: Clear status report, sprint 1 complete, ready for Week 2

4

Week 2: Features & Polish (Dec 11 - Dec 17)

Day 6 (Dec 11 - Wednesday) - Listings & Search

Dev 1:

- Complete listing CRUD in controller
- Implement listing status workflow (draft → published)
- Add listing ownership verification
- Create search/filter backend logic

Dev 2:

- Connect `app/views/listings/addListing.php` to controller
- Implement multi-image upload UI
- Add attributes and services selection
- Test listing creation

Dev 3:

- Implement search functionality in `app/views/listings/listing.php`
- Add filters (city, country, room type, services)
- Create listing card display
- Implement pagination

Dev 4:

- Create listing detail view
- Add image gallery display
- Show listing attributes and services
- Add "Apply" button (prep for Day 7)

Deliverable: Complete listing management, search and filter working

---

Day 7 (Dec 12 - Thursday) - Applications System

Dev 1:

- Implement `app/models/exchange.php` (listing_application table)
- Create application submission logic
- Implement application status management
- Add application validation (one active per user/listing)

Dev 2:

- Create application form view
- Implement application submission
- Show user's applications in "My Applications" page

5

- Test application flow

Dev 3:

- Create host view for received applications
- Implement accept/reject functionality
- Add application status indicators
- Test host application management

Dev 4:

- Create `app/views/listings/my_exchanges.php` functionality
- Display user's applications with status
- Add filters for application status
- Test edge cases

Deliverable: Complete application system with student and host workflows

---

Day 8 (Dec 13 - Friday) - Documents & Verification

Dev 1:

- Implement document upload system
- Create verification document model
- Add document status management
- Implement security for document access

Dev 2:

- Create document upload UI
- Implement identification document upload
- Add student status document upload
- Test document upload functionality

Dev 3:

- Create listing verification document upload (for hosts)
- Implement document preview/download
- Add document status display
- Test document security

Dev 4:

- Create moderator document review interface
- Implement approve/reject document functionality
- Add document verification workflow
- Test complete verification process

Deliverable: Document upload and verification system working

Day 9 (Dec 14 - Saturday) - Reviews & Ratings

Dev 1:

- Implement review/rating system
- Create `app/models/booking.php` for completed exchanges
- Add rating calculation and storage
- Implement review display logic

Dev 2:

- Create review submission form
- Implement listing reviews
- Add user reviews (as guest)
- Display reviews on listing page

Dev 3:

- Show average ratings on listings
- Display user ratings on profiles
- Create review moderation flags
- Test rating calculations

Dev 4:

- Add review display UI
- Implement review sorting/filtering
- Create review pagination
- Test complete review flow

Deliverable: Reviews and ratings system functional

Day 10 (Dec 15 - Sunday) - Admin & Moderator Features

Dev 1:

- Implement role-based access control
- Create admin dashboard functionality
- Add moderator review features
- Implement user management (suspend, approve)

Dev 2:

- Update `app/views/admin/dashboard.php`
- Show statistics (users, listings, applications)
- Add user management UI
- Test admin features

Dev 3:

- Update `app/views/moderator/dashboard.php`

- Show pending reviews queue
- Implement listing approval workflow
- Test moderator features

Dev 4:

- Add user status management
- Create report listing functionality
- Implement basic reporting system
- Test access control

Deliverable: Admin and moderator dashboards functional

Day 11 (Dec 16 - Monday) - Testing & Bug Fixes

Dev 1:

- Comprehensive code review
- Security audit (SQL injection, XSS, CSRF)
- Performance optimization
- Fix critical bugs

Dev 2:

- Test all user workflows end-to-end
- Create test user accounts for demo
- Document found bugs
- Fix assigned bugs

Dev 3:

- Test all listing workflows
- Test application system thoroughly
- Create test data for demo
- Fix assigned bugs

Dev 4:

- Test document upload system
- Test admin/moderator features
- Create user documentation
- Fix assigned bugs

Deliverable: All features tested, critical bugs fixed, demo data ready

---

Day 12 (Dec 17 - Tuesday) - Final Polish & Delivery

Specific Tasks:

Dev 1:

- Final security review
- Performance optimization
- Create deployment guide
- Prepare technical documentation

Dev 2:

- UI/UX polish and consistency
- Form validation improvements
- Error message refinement
- User documentation

Dev 3:

- Create demo video/screenshots
- Test on different browsers
- Mobile responsiveness check
- Create user guide

Dev 4:

- Final data seeding
- Create admin user guide
- Test all edge cases
- Prepare handoff documentation

Complete File Implementation List

Core Framework (Priority 1, Days 1-2) - `app/config.php` — Database credentials & settings - `app/core/database.php` — PDO wrapper - `app/core/controller.php` — Base controller - `app/core/model.php` — Base model - `app/core/router.php` — Routing (optional) - `app/helpers/Validator.php` — Validation helper - `app/helpers/FileUpload.php` — File upload helper - `app/helpers/Security.php` — CSRF/XSS/passwords - `app/helpers/Session.php` — Session wrapper - `.htaccess` — URL rewriting - `.env` — Env vars (optional)

Authentication (Priority 1, Day 3) - `app/controllers/authController.php` — Register/login/logout/password reset - `app/models/user.php` — User CRUD & roles - `app/middleware/AuthMiddleware.php` - `app/middleware/RoleMiddleware.php` - `app/views/auth/signin.php` - `app/views/auth/register.php` - `app/views/auth/forgot_password.php` - `app/views/auth/new_password.php`

Layouts (Priority 1, Day 2) - app/views/layouts/main.php - app/views/partials/header.php
- app/views/partials/footer.php - app/views/partials/navigation.php
- app/views/partials/flash_messages.php

Profile Management (Priority 1, Day 4) - app/controllers/profileController.php
- app/models/profile.php - app/views/profile/profile.php - app/views/profile/edit_profile.php
- app/views/profile/public_profile.php

Listings (Priority 2, Days 5-6) - app/controllers/listingControler.php
(CRUD) - app/models/listing.php - app/models/listing_image.php -
app/models/listing_attribute.php - app/models/listing_service.php -
app/models/attribute.php - app/models/service.php - app/views/listings/listing.php
- app/views/listings/addListing.php - app/views/listings/edit_listing.php
- app/views/listings/exchange_details.php - app/views/listings/my_listings.php

---

Search & Filter (Priority 2, Day 6) - app/helpers/SearchHelper.php -
app/helpers/FilterHelper.php - app/views/listings/_search_form.php -
app/views/listings/_filters.php - app/views/listings/_listing_card.php

---

Applications System (Priority 2, Day 7) - app/models/exchange.php -
app/controllers/applicationController.php - app/models/application_message.php
(optional) - app/views/listings/my_exchanges.php - app/views/applications/create.php
- app/views/applications/received.php - app/views/applications/view.php
- app/views/applications/manage.php

Document Management (Priority 2, Day 8) - app/models/user_document.php
- app/models/listing_verification_document.php - app/models/document_type.php
- app/controllers/documentController.php - app/views/documents/upload.php
- app/views/documents/view.php - app/views/documents/manage.php -
app/views/moderator/verify_documents.php

Review System (Priority 2, Day 9) - app/models/booking.php -
app/models/review.php - app/controllers/reviewController.php
- app/views/reviews/create.php - app/views/reviews/view.php -
app/views/reviews/_review_card.php - app/helpers/RatingHelper.php

---

Admin & Moderator (Priority 3, Day 10) - app/controllers/adminController.php
- app/controllers/moderatorController.php - app/models/report.php
- app/views/admin/dashboard.php - app/views/admin/users.php -

app/views/admin/listings.php - app/views/admin/reports.php - app/views/moderator/dashboard.php - app/views/moderator/pending_listings.php - app/views/moderator/pending_users.php

---

Supporting Helpers - app/helpers/EmailHelper.php - app/helpers/ImageHelper.php - app/helpers/PaginationHelper.php - app/helpers/DateHelper.php - app/helpers/StringHelper.php - app/helpers/DebugHelper.php

---

Database Seeds & Migrations - database/seeds/AttributeSeeder.php - database/seeds/ServiceSeeder.php - database/seeds/DocumentTypeSeeder.php - database/seeds/TestUserSeeder.php - database/seeds/TestListingSeeder.php - database/migrations/ (optional)

API Endpoints (Optional) - api/listings.php - api/search.php - api/applications.php

---

Assets & Resources - public/uploads/profiles/ - public/uploads/listings/ - public/uploads/documents/ - public/uploads/verification/ - public/js/ - public/js/app.js - public/js/validation.js

---

Summary by Priority

Must Complete (about 90 files): - Core Framework (11) - Authentication (8) - Layouts (5) - Profiles (5) - Listings (12) - Search (5) - Applications (8) - Documents (8) - Reviews (7) - Admin/Moderator (10) - Helpers (6) - Seeds (5)

Nice to Have: - API endpoints - Advanced testing - Extra helpers - Performance work

---

Suggested Implementation Order

Week 1 (Dec 6–10): - Core Framework - Authentication - Layouts - Profiles - Basic Listings

Week 2 (Dec 11–17): - Search & Applications - Documents - Reviews - Admin/Moderator - Polish & Docs

---