

Project 4: Information Collector for Avirant Enterprises

Module 1: Coding (10 Students)

Weeks 1-2: Initial Setup & Basic Functionality

- Set up the main application and configure security.
- Implement core entities like `Form`, `Question`, etc.

Weeks 3-4: Controller & Service Layer

- Develop controllers for form creation, data collection, etc.
- Implement service classes to handle business logic.

Weeks 5-6: Advanced Features

- Add features like customizable data collection and automated data storage.
- Implement additional functionalities as required.

Module 2: Designing (10 Students)

Weeks 1-2: Initial Design

- Create wireframes and mockups for main pages (login, home, admin).
- Define the color scheme and overall look and feel.

Weeks 3-4: HTML & CSS

- Develop HTML templates for each page using Thymeleaf.
- Style pages using CSS, ensuring a consistent design.

Weeks 5-6: User Experience

- Enhance user experience by adding interactivity.
- Ensure responsiveness for different devices.

Module 3: Integration (10 Students)

Weeks 1-2: Basic Integration

- Set up database connections.
- Integrate front-end forms with back-end controllers.

Weeks 3-4: Data Flow

- Ensure data is correctly saved and retrieved from the database.
- Connect front-end views with back-end services.

Weeks 5-6: Full System Integration

- Test end-to-end functionality.
- Make sure all components work seamlessly together.

Module 4: Testing (10 Students)

Weeks 1-2: Test Planning

- Define test cases and scenarios.
- Set up testing frameworks.

Weeks 3-4: Unit Testing

- Write and execute unit tests for controllers, services, and repositories.

Weeks 5-6: Integration & UAT

- Conduct integration testing to ensure all parts work together.
- Perform user acceptance testing to validate user requirements.

Detailed Weekly Breakdown

Week 1: Introduction & Initial Setup

- **Coding:** Set up main application and security.
- **Designing:** Create wireframes and mockups.
- **Integration:** Establish basic database connection.
- **Testing:** Define test cases.

Week 2: Basic Implementation

- **Coding:** Implement core entities.
- **Designing:** Define color schemes, design main pages.
- **Integration:** Integrate basic forms.
- **Testing:** Set up testing frameworks.

Week 3: Developing Features

- **Coding:** Develop controllers.
- **Designing:** Develop HTML templates.
- **Integration:** Connect front-end forms to back-end.
- **Testing:** Write unit tests.

Week 4: Enhancing Features

- **Coding:** Implement service classes.
- **Designing:** Style pages using CSS.
- **Integration:** Ensure data flow.
- **Testing:** Execute unit tests.

Week 5: Advanced Integration

- **Coding:** Add advanced features.
- **Designing:** Enhance user experience.
- **Integration:** Test end-to-end functionality.
- **Testing:** Conduct integration testing.

Week 6: Final Touches

- **Coding:** Finalize all coding tasks.
- **Designing:** Ensure responsiveness.
- **Integration:** Final integration.
- **Testing:** Perform UAT.

Diagram Overview:

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Information Collector Application

- Main Application (InformationCollectorApplication.java)
- Security Configuration (SecurityConfig.java)
- Entities
 - Form
 - Question
- Controllers
 - LoginController
 - HomeController
 - FormController
 - AdminController
- Repositories
 - FormRepository
 - QuestionRepository
- Services
 - FormService
 - QuestionService
- Templates
 - login.html
 - home.html
 - form.html
 - viewForms.html
 - admin.html
- CSS
 - style.css