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Batch No: T3.2308.A0 1

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Supervisor: Mr. Truong Thanh Trung 1

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# Task Sheet for Review 2: Architecture & Design

## Project: Smart Building Management System

## Batch No: T3.2308.A0

## Group No: 1

## Semester: 1

## Supervisor: Mr. Truong Thanh Trung

## Month: September 2025

### Team Members

1. Huỳnh Tấn Lực (Student1507630)
2. Đặng Trí Thức (Student1438991)

### Task Breakdown

| Task ID | Task Description | Assignee | Start Date | End Date | Status | Notes |
| --- | --- | --- | --- | --- | --- | --- |
| R2-01 | Define 3-tier architecture (Presentation, Business Logic, Data Access) | Huỳnh Tấn Lực | 12/09/2025 | 13/09/2025 | Completed | Clear responsibilities and boundaries |
| R2-02 | Detail roles of each tier and technologies used | Đặng Trí Thức | 12/09/2025 | 14/09/2025 | Completed | React+TS, Flutter, Spring Boot, MySQL, Redis |
| R2-03 | Describe overall system architecture | Huỳnh Tấn Lực | 13/09/2025 | 14/09/2025 | Completed | Web, Mobile, RESTful APIs, 3-tier |
| R2-04 | Design microservices architecture diagram | Đặng Trí Thức | 14/09/2025 | 16/09/2025 | Pending | Draw components and inter-service communication |
| R2-05 | Document microservices details (Main, Realtime, Facility, Reporting, Payment, Security) | Huỳnh Tấn Lực | 14/09/2025 | 16/09/2025 | Completed | Responsibilities, data stores, protocols |
| R2-06 | Define data flows (user request, inter-service, data, realtime) | Đặng Trí Thức | 15/09/2025 | 17/09/2025 | In Progress | Sequence and integration points |
| R2-07 | Create Data Flow Diagrams (DFD) for main flows | Huỳnh Tấn Lực | 16/09/2025 | 18/09/2025 | Pending | Context + Level 1 diagrams |
| R2-08 | Elaborate use case diagrams and descriptions (Admin/Staff/Resident) | Đặng Trí Thức | 16/09/2025 | 18/09/2025 | Completed | Detailed flows and postconditions |
| R2-09 | Specify sequence flows for login, booking, billing, notifications, maintenance | Huỳnh Tấn Lực | 17/09/2025 | 19/09/2025 | In Progress | Convert text flows to UML sequences |
| R2-10 | Define non-functional design decisions (scalability, security, caching, backups) | Đặng Trí Thức | 17/09/2025 | 19/09/2025 | Completed | HikariCP, TLS, JWT, RBAC, Flyway, Redis |
| R2-11 | Prepare architecture diagrams (C4/Component/Deployment) | Huỳnh Tấn Lực | 18/09/2025 | 20/09/2025 | Pending | Use PlantUML/Mermaid |
| R2-12 | Consolidate Review 2 package and submit | Đặng Trí Thức | 20/09/2025 | 21/09/2025 | Pending | Final MD/PDF with diagrams |

### Notes

* Textual architecture and design items are completed per REVIEW 2 content.
* Diagram-oriented tasks (R2-04, R2-07, R2-11) are pending to be drawn/exported.
* Sequence conversion (R2-09) is in progress based on provided flows.