

TEAMWORK REPORT

Project: Smart Restaurant – QR Menu Ordering System

Team: 23120017–23120061–23120190

1. Thông tin nhóm

MSSV	Họ và tên	Vai trò	Trách nhiệm chính
23120017	Trần Thanh An	Backend Developer	<ul style="list-style-type: none">Xây dựng toàn bộ RESTful APIs (Auth, Menu, Order, Payment).Thiết kế Database Schema và Migrations.Xử lý logic nghiệp vụ cho đơn hàng và doanh thu.
23120061	Nguyễn Thị Ánh Ngọc	Frontend Developer	<ul style="list-style-type: none">Phát triển Admin Dashboard (Quản lý món, bàn, nhân viên).Xây dựng giao diện nghiệp vụ: Kitchen Display System (Bếp) và Waiter App (Phục vụ).Tích hợp logic xử lý trạng thái đơn hàng phía nhân viên.
23120190	Nguyễn Lê Thế Vinh	Team Leader / Fullstack	<ul style="list-style-type: none">Phát triển Guest Interface (Menu, Giỏ hàng, Thanh toán, Theo dõi đơn).Tích hợp Real-time (Socket.io) và In hóa đơn.Chức năng nâng cao: Xuất báo cáo (Export PDF/Excel), Đa ngôn ngữ.

2. Tổng quan về sự phối hợp

Nhóm tuân thủ quy trình phát triển phần mềm linh hoạt (Agile). Dự án được chia thành nhiều Sprint với các nhiệm vụ (Task) được định nghĩa rõ ràng. Mỗi thành viên chịu trách nhiệm cho các module cụ thể, đồng thời phối hợp chặt chẽ trong các giai đoạn tích hợp và kiểm thử.

Các công cụ hỗ trợ:

- GitHub:** Quản lý mã nguồn (Source code management).

- **Jira Software:** Lập kế hoạch và theo dõi tiến độ công việc.
 - **Zalo:** Trao đổi hàng ngày và họp nhanh.
 - **Google Meet:** Họp định kỳ review sau mỗi Sprint.
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3. Quy trình phát triển (Development Workflow)

3.1. Phân chia công việc (Task Assignment)

Các công việc được tạo trên Jira và phân loại theo:

- **Guest Ordering:** Các tính năng phục vụ khách hàng (xem menu, gọi món).
- **Admin Panel:** Trang quản trị dành cho chủ nhà hàng.
- **Staff Operations:** Các tính năng tác nghiệp cho nhân viên.
- **Infrastructure:** Thiết lập hạ tầng, server, cơ sở dữ liệu.
- **Documentation:** Soạn thảo tài liệu dự án.
- **Testing & Deploy:** Kiểm thử và triển khai ứng dụng.

Mỗi Task trong các Epic này sẽ được gán nhãn (Label) hoặc phân công cụ thể (Backend/Frontend) tùy theo người thực hiện.

3.2. Chiến lược phân nhánh (Branching Strategy)

Nhóm áp dụng mô hình **GitHub Flow** để đơn giản hóa quy trình tích hợp:

main (Nhánh chính - Phiên bản ổn định)

```
|— feat/kitchen-waiter-api
|— feat/tables-qr-api
|— feat/user-management
|— fix/order-item-status-display
|— docs/final-submission
|— ...
```

Quy tắc hoạt động:

- **Main branch:** Là nhánh mặc định, chứa mã nguồn ổn định và luôn sẵn sàng để triển khai (deploy).

- **Feature/Fix branches (feat/..., fix/...):**
 - Được tạo trực tiếp từ nhánh main khi bắt đầu một tính năng mới hoặc sửa lỗi.
 - **Quy cách đặt tên:** loại-task/tên-chức-năng (Ví dụ: feat/payment-api, fix/order-item-status-display).
- **Quy trình Merge (Hợp nhất):**
 - Tạo Pull Request (PR) từ nhánh tính năng vào main.
 - Team Leader hoặc thành viên khác review code.
 - Sau khi được duyệt (Approve), code mới được merge vào main.

4. Giao tiếp và Hợp nhóm

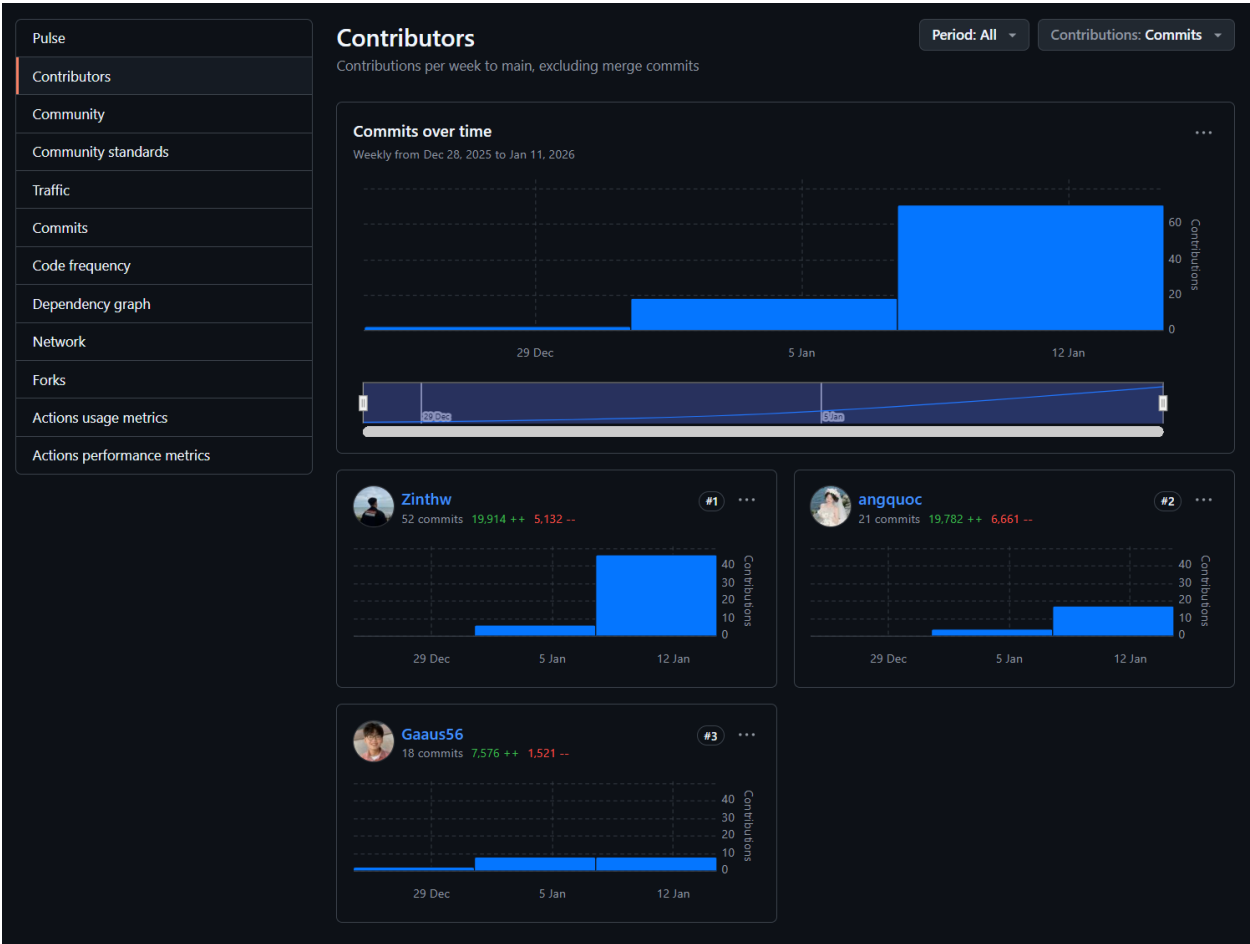
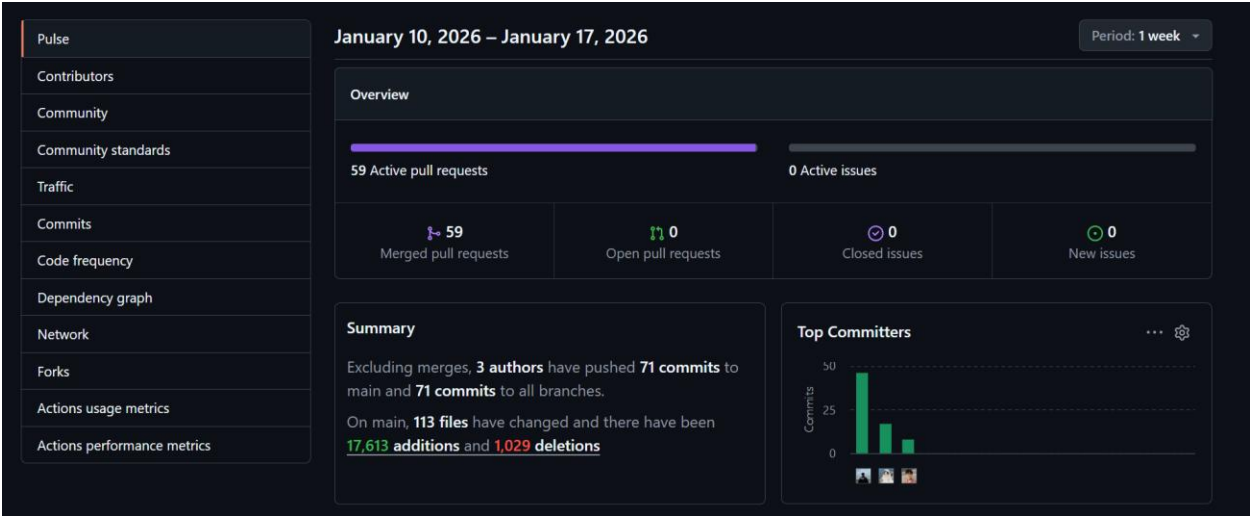
Hoạt động	Tần suất	Hình thức
Thảo luận hàng ngày	Hàng ngày	Nhắn tin qua Zalo
Họp Sprint (Tuần)	1 lần/tuần	Google Meet
Code Review	Sau khi xong 1 tính năng	Trên GitHub (Pull Request)
Demo & Tích hợp	Cuối mỗi Sprint	Google Meet

5. Giải quyết xung đột (Conflict Resolution)

Khi có vấn đề phát sinh, nhóm áp dụng các nguyên tắc sau:

- **Thảo luận:** Mọi vấn đề được đưa ra bàn bạc công khai trong các cuộc họp.
 - **Ra quyết định:** Giải quyết thông qua biểu quyết hoặc quyết định cuối cùng của Leader (nếu không thống nhất được).
 - **Git Conflicts:** Các thành viên liên quan sẽ ngồi cùng nhau (hoặc share màn hình) để gỡ conflict code.
 - **Bất đồng về thiết kế:** Được giải quyết dựa trên các tiêu chí ưu tiên:
 - Khả năng mở rộng của hệ thống (Scalability).
 - Trải nghiệm người dùng (User Experience).
 - Yêu cầu cốt lõi của dự án.
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6. Minh chứng đóng góp trên GitHub








































































main	All users	All time
Commits on Jan 17, 2026		
fix: SSL config for Render PostgreSQL self-signed certificate Zinthw committed 30 minutes ago · ✓ 1 / 1	7e4103d	
Merge pull request #59 from TranAn205/docs/cleanup-closure TranAn205 authored 1 hour ago	Verified de90eb6	
chore: cleanup documentation folder Gaus56 committed 1 hour ago	cc1b1cc	
Merge pull request #58 from TranAn205/docs/final-submission angquoc authored 1 hour ago	Verified 5d1c4d2	
docs: refactor documentation structure angquoc committed 1 hour ago	0aaca7a	
Merge pull request #57 from TranAn205/fix_final Zinthw authored 1 hour ago	Verified c8013d0	
m Zinthw committed 1 hour ago	9f8169d	
Merge pull request #56 from TranAn205/docs/final-submission angquoc authored 3 hours ago	Verified 7b25200	
docs: Add final submission reports (Self-Assessment) angquoc committed 3 hours ago	715f761	
Merge pull request #55 from TranAn205/final-improvements Zinthw authored 4 hours ago	Verified 3e35b68	
fix: TypeScript error in pending-payment page Zinthw committed 4 hours ago	880ace0	

Merge pull request #54 from TranAn205/final-improvements Zinthw authored 4 hours ago	Verified 62cab03	
chore: Add frontend/.env.local.example template Zinthw committed 4 hours ago	bfc30e1	
Merge pull request #53 from TranAn205/final-improvements Zinthw authored 4 hours ago	Verified ea8e0aa	
feat: Add Docker support with docker-compose - Add Dockerfile for backend and frontend - Add docker-compose.yml to orchestrate services - Add .env.docker.example template - Add DOCKER_GUIDE.md with... Zinthw committed 4 hours ago	b0fd368	
Merge pull request #52 from TranAn205/final-improvements Zinthw authored 6 hours ago	Verified a3d59b8	
feat: implement VAT display, infinite scroll, role guard and i18n support Zinthw committed 6 hours ago	f0ecafb	
fix: Allow unauthenticated guests to view order details Zinthw committed 7 hours ago	7579446	
feat: Add VAT (10%) breakdown to guest order detail page Zinthw committed 7 hours ago	295fac7	
fix: Allow guests to view order details by making my-reviews API optional Zinthw committed 7 hours ago	093164d	
fix: Remove duplicate /api/orders route and add optionalCustomer middleware Zinthw committed 8 hours ago	c6334cc	
fix: Allow guest users to view order details and download bills without authentication Zinthw committed 8 hours ago	6b42b92	
Merge pull request #51 from TranAn205/fix/order-item-status-display angquoc authored 8 hours ago	Verified 2dbcaf5	

chore: resolve merge conflicts and integrate reward points	7558568		
angquoc committed 8 hours ago			
feat: add reward points API and fix missing dish status for waiters	7dbbe95		
angquoc committed 8 hours ago			
Merge pull request #50 from TranAn205/feature/waiter-bill-printing	Verified	3e0f675	
Zinthw authored 10 hours ago			
feat: Add bill printing feature with Vietnamese font support	f1ebf8d		
Zinthw committed 11 hours ago			
Merge pull request #49 from TranAn205/fix-admin	Verified	07a1b0f	
Zinthw authored 20 hours ago			
Merge pull request #48 from TranAn205/fix/kitchen-order-flow	Verified	91842c4	
Zinthw authored 20 hours ago			
feat: display admin avatar in sidebar - Added avatar state and Image import - Read avatar from localStorage admin_user - Display avatar image or fallback to initials	8fffacf		
Zinthw committed 20 hours ago			
feat: add popularity sort to backend menu API	9af8c1b		
Zinthw committed 20 hours ago			
feat: add sort by popularity and chef recommendation filter	4c866d9		
Zinthw committed 20 hours ago			
fix: related items image loading	ed311e5		
Zinthw committed yesterday			
feat: implement 6 critical features for self-assessment	15c97c8		
Zinthw committed yesterday			
Merge pull request #47 from TranAn205/fix/kitchen-order-flow	Verified	f132193	
Zinthw authored yesterday			

Commits on Jan 17, 2026			
fix: kitchen order flow - add socket.io real-time updates and fix status column	2453980		
Zinthw committed yesterday			
Merge pull request #46 from TranAn205/fix/guest-review	Verified	228dd10	
Zinthw authored yesterday			
fix: waiter-kitchen order flow - update order_items status on accept	8846592		
Zinthw committed yesterday			
Merge main into fix/guest-review	f41799d		
Zinthw committed yesterday			
fix: TypeScript types and complete review flow	34e8173		
Zinthw committed yesterday			
Merge pull request #45 from TranAn205/fix/guest-review	Verified	42f546a	
Zinthw authored yesterday			
Merge pull request #44 from TranAn205/fix/admin-issues-v2	Verified	b331d18	
Zinthw authored yesterday			
feat(reviews): Add review stats to menu and my-reviews page	58064c8		
Zinthw committed yesterday			
feat(customer): Add order linking after login for reviews	e7fb8fc		
Zinthw committed yesterday			
fix(auth): Fix requireCustomer middleware to support both token types for reviews	7252cc6		
Zinthw committed yesterday			
remove: Remove unused sound toggle buttons from waiter and kitchen pages	41520dc		
Zinthw committed yesterday			
Merge origin/main into fix/admin-issues-v2 - resolve conflicts	d93169d		
Zinthw committed yesterday			

Merge pull request #43 from TranAn205/fix/admin-issues <small>🔒</small>  ZinThw authored yesterday	Verified 151bd90	 
fix(admin): Fix sidebar sticky positioning and add chart to PDF export  ZinThw committed yesterday	9ed745c	 
Commits on Jan 16, 2026		
fix(admin): Add socket.io-client, fix QR dialog, charts, staff, print invoice  ZinThw committed yesterday	956cb86	 
fix(admin): Fix order NaN, staff toggle, add chart, print invoice  ZinThw committed yesterday	1f7d19a	 
fix(admin): Fix QR code display - use API_BASE_URL, add auto-generate when opening dialog  ZinThw committed yesterday	6d688d3	 
Merge pull request #42 from TranAn205/feature/payment-workflow-refactor <small>🔒</small>  angquoc authored yesterday	Verified a1590b7	 
fix: define missing readyOrdersCount variable  angquoc committed yesterday	41ca7f3	 
Merge pull request #41 from TranAn205/feature/payment-workflow-refactor <small>🔒</small>  angquoc authored yesterday	Verified d9485e6	 
fix: resolve conflict by accepting current payment badges  angquoc committed yesterday	0a9bdf8	 
feat(frontend): waiter dashboard, api client and layout updates  angquoc committed yesterday	de4ea85	 
feat(guest): payment request, checkout and review pages  angquoc committed yesterday	7890a0d	 
feat(backend): implement payment, order and review logic  angquoc committed yesterday	65da418	 

Merge pull request #40 from TranAn205/fix/kitchen-improvements <small>🔒</small>  ZinThw authored yesterday	Verified 0dc4c7a	 
fix(kitchen): Remove refresh button  ZinThw committed yesterday	83f1b33	 
fix(kitchen): Add sound notification, remove Key button  ZinThw committed yesterday	6d61f12	 
Merge pull request #39 from TranAn205/fix/waiter-improvements <small>🔒</small>  ZinThw authored yesterday	Verified 599a72f	 
fix(waiter): Improve UI - group ready items by table, add sound notification, simplify header  ZinThw committed yesterday	bfd6034	 
fix(admin): Fix sidebar footer - always show admin info and logout  ZinThw committed yesterday	0d192d0	 
Merge pull request #38 from TranAn205/feature/admin-enhancements <small>🔒</small>  ZinThw authored yesterday	Verified 5838856	 
docs: Complete all project documentation with team info <small>🔒</small>  ZinThw committed yesterday	313e252	 
docs: Complete 03-execution documentation with team info and progress  ZinThw committed yesterday	b9deb96	 
docs: Update team info with names, IDs, emails and GitHub links  ZinThw committed yesterday	4b4cdcb	 
docs: Update team member info in README and SELF_ASSESSMENT_REPORT <small>🔒</small>  ZinThw committed yesterday	d1cc0af	 

Commits on Jan 16, 2026		
docs: Update team member info in README and SELF_ASSESSMENT_REPORT	d1cc0af	
Zinthw committed yesterday		
Merge pull request #37 from TranAn205/feature/admin-enhancements	Verified 326c2e8	
Zinthw authored yesterday		
fix(staff): Correct API endpoint for staff registration	342a871	
Zinthw committed yesterday		
fix: Add full_name to waiter/kitchen in seed.js	7ddb0d	
Zinthw committed yesterday		
fix(staff): Add backend API for listing staff and update status	e87bca1	
Zinthw committed yesterday		
fix(reports): Fix PDF Vietnamese font encoding and currency format	8b24693	
Zinthw committed yesterday		
feat(reports): Add PDF and Excel export functionality	4729ead	
Zinthw committed yesterday		
feat(dashboard): Replace bar chart with Line Chart for revenue	8734f2d	
Zinthw committed yesterday		
feat(admin): Add Order Detail page and Tables pagination	405ee86	
Zinthw committed yesterday		
feat(admin): Add Orders, Staff pages, Dashboard charts, Menu sort	344f7a6	
Zinthw committed yesterday		
Merge pull request #36 from TranAn205/feature/add-utility-hooks	Verified 57d6e44	
angquoc authored 2 days ago		

feat: add useToast and uselsMobile hooks	49f1e07	
angquoc committed 2 days ago		
Delete how --no-patch b9bdcfd	Verified f36fedf	
angquoc authored 2 days ago		
Delete et --hard 85bf232	Verified c3cc81b	
angquoc authored 2 days ago		
Merge pull request #35 from TranAn205/feat/user-management	Verified 77a7b09	
Gaus56 authored 2 days ago		
feat(backend): Add user and superadmin management	79f4ca4	
Gaus56 committed 2 days ago		
Merge pull request #34 from TranAn205/feat/customer-api	Verified 853b64c	
Gaus56 authored 2 days ago		
feat(backend): Add customer profile API	566bc14	
Gaus56 committed 2 days ago		
Merge pull request #33 from TranAn205/feature/review-profile	Verified f07c5b2	
Zinthw authored 2 days ago		
feat(frontend): Add review and profile pages	5b20bd1	
Zinthw committed 2 days ago		
Merge pull request #32 from TranAn205/feat/reviews-api	Verified 3c74cef	
Gaus56 authored 2 days ago		
feat(backend): Add menu item reviews API	4845746	
Gaus56 committed 2 days ago		
Merge pull request #31 from TranAn205/feature/admin-reports-dashboar	Verified e713df5	
angquoc authored 2 days ago		

feat(frontend): Add reports dashboard with charts angquoc committed 2 days ago		dc26b24		<>
Merge pull request #30 from TranAn205/feat/reports-api Gaaus56 authored 2 days ago		Verified	a9b7cd9	<>
feat(backend): Add revenue and analytics API Gaaus56 committed 2 days ago			c0aa3ca	<>
Commits on Jan 15, 2026				
Merge pull request #29 from TranAn205/feature/payment-pages Zinthw committed 2 days ago			6fe62af	<>
feat(frontend): Add payment pages Zinthw committed 2 days ago			dace9d1	<>
Merge pull request #28 from TranAn205/feat/payment-api Gaaus56 committed 3 days ago			5b6e1e8	<>
feat(backend): Add payment and billing API Gaaus56 committed 3 days ago			ded130e	<>
Commits on Jan 14, 2026				
Merge pull request #27 from TranAn205/feature/admin-password-pages angquoc committed 3 days ago			d6e4435	<>
feat(frontend): Add admin password management angquoc committed 3 days ago			292eead	<>
Merge pull request #26 from TranAn205/feature/waiter-order-management angquoc committed 4 days ago			bf8dece	<>
feat(frontend): Add waiter order management angquoc committed 4 days ago			99838cb	<>
Commits on Jan 13, 2026				
feat(frontend): Add Kitchen Display System with real-time angquoc committed 4 days ago			118009a	<>
Merge pull request #24 from TranAn205/feat/kitchen-waiter-api Gaaus56 committed 5 days ago			ddb3aa3d	<>
feat(backend): Add kitchen and waiter API with controllers Gaaus56 committed 5 days ago			3818452	<>
Commits on Jan 12, 2026				
Merge pull request #23 from TranAn205/feature/admin-table-management angquoc committed 5 days ago			64131cf	<>
feat(frontend): Add table management with QR codes angquoc committed 5 days ago			71cd9fe	<>
Merge pull request #22 from TranAn205/feat/tables-qr-api Gaaus56 committed last week			7abc5d0	<>
feat(backend): Add table management and QR generation API Gaaus56 committed last week			ad15f8e	<>
Commits on Jan 11, 2026				
Merge pull request #21 from TranAn205/feature/admin-menu-management angquoc committed last week			c0e4a2e	<>
feat(frontend): Add menu management CRUD angquoc committed last week			f4606a9	<>
Merge pull request #20 from TranAn205/feature/admin-dashboard-stats angquoc committed last week			9cce69b	<>


feat(frontend): Add admin dashboard with stats angquoc committed last week		16476b9		
Commits on Jan 10, 2026				
Merge pull request #17 from TranAn205/feature/admin-dashboard-layout		079385b		
feat(frontend): Add admin dashboard layout angquoc committed last week		aac4d5a		
Merge pull request #16 from TranAn205/feature/admin-login-page		33a74e1		
feat(frontend): Add admin login page angquoc committed last week		c8c95d9		
Commits on Jan 9, 2026				
Merge pull request #14 from TranAn205/feature/guest-auth-pages		8e00274		
feat(frontend): Add guest login and registration angquoc committed last week		0017393		
Merge pull request #13 from TranAn205/feature/order-tracking		5265f1a		
feat(frontend): Add real-time order status tracking Zinthw committed last week		98fb78a		
Merge pull request #12 from TranAn205/feature/checkout-page		6abed6d		
feat(frontend): Add checkout and order submission Zinthw committed last week		5362961		



Commits on Jan 8, 2026				
Merge pull request #11 from TranAn205/feature/backend-orders-api		05bf232		
feat(backend): Add order creation and tracking API Gaus56 authored and angquoc committed last week		77f3e06		
Merge pull request #10 from TranAn205/feature/cart-context		b9bdcd8		
feat(frontend): Add cart context and drawer Zinthw committed last week		28284c0		
Commits on Jan 7, 2026				
Merge pull request #9 from TranAn205/feature/guest-menu-page		f6c2296		
Merge pull request #7 from TranAn205/feature/guest-menu-page		34fefb9		
feat(frontend): Add guest menu page with categories Zinthw committed last week		89525b8		
Merge pull request #8 from TranAn205/feature/guest-menu-components		c5efbd8		
Merge branch 'feature/guest-menu-components'		26c373d		
feat(frontend): Add guest menu components Zinthw committed last week		a189009		
feat(frontend): Add guest menu page with categories Zinthw committed 2 weeks ago		b8582ac		

Merge pull request #5 from TranAn205/ui-core	045cc8b	<>
angquoc committed 2 weeks ago		
Merge branch 'main' of https://github.com/TranAn205/smart-restaurant into ui-core	8131880	<>
angquoc committed 2 weeks ago		

Commits on Jan 7, 2026


feat(frontend): Add UI component library



 angquoc committed 2 weeks ago

3c06e98  


Commits on Jan 6, 2026



Merge pull request #4 from TranAn205/feat(backend)-Add-public-menu-endpoint-for-guests

 Gaaus56 authored and angquoc committed 2 weeks ago


45fe3ff  



feat(backend): Add public menu endpoint for guests

 Gaaus56 authored and angquoc committed 2 weeks ago


d98ad4c  



Merge pull request #3 from TranAn205/feat(backend)-Add-menu-CRUD-API-with-controllers

 Gaaus56 authored and angquoc committed 2 weeks ago

b03d007  


feat(backend): Add menu CRUD API with controllers



 Gaaus56 authored and angquoc committed 2 weeks ago

e3e105e  


Commits on Jan 5, 2026



Merge pull request #2 from TranAn205/feat(backend)-Add-authentication-routes-and-controller

 Gaaus56 authored and angquoc committed 2 weeks ago


a4ea607  



feat(backend): Add authentication routes and controller

 Gaaus56 authored and angquoc committed 2 weeks ago


810cf96  



Merge pull request #1 from TranAn205/feat(backend)-Add-authentication-middleware

 Gaaus56 authored and angquoc committed 2 weeks ago

d3a24e7  

feat(backend): Add authentication middleware

 Gaaus56 authored and angquoc committed 2 weeks ago

d754a48  

Commits on Jan 4, 2026

docs: Add project documentation structure

Gaaus56 authored and angquoc committed 2 weeks ago

cdb5cc8

<>

feat(frontend): Initialize NextJS project

Gaaus56 authored and angquoc committed 2 weeks ago

2ccf8fa

<>

feat(db): Add database schema and migrations

Gaaus56 authored and angquoc committed 2 weeks ago

f249b91

<>

Commits on Jan 3, 2026

feat(backend): Add Express server skeleton

Gaaus56 authored and angquoc committed 2 weeks ago

e6a6ac6

<>

chore: Initialize project structure

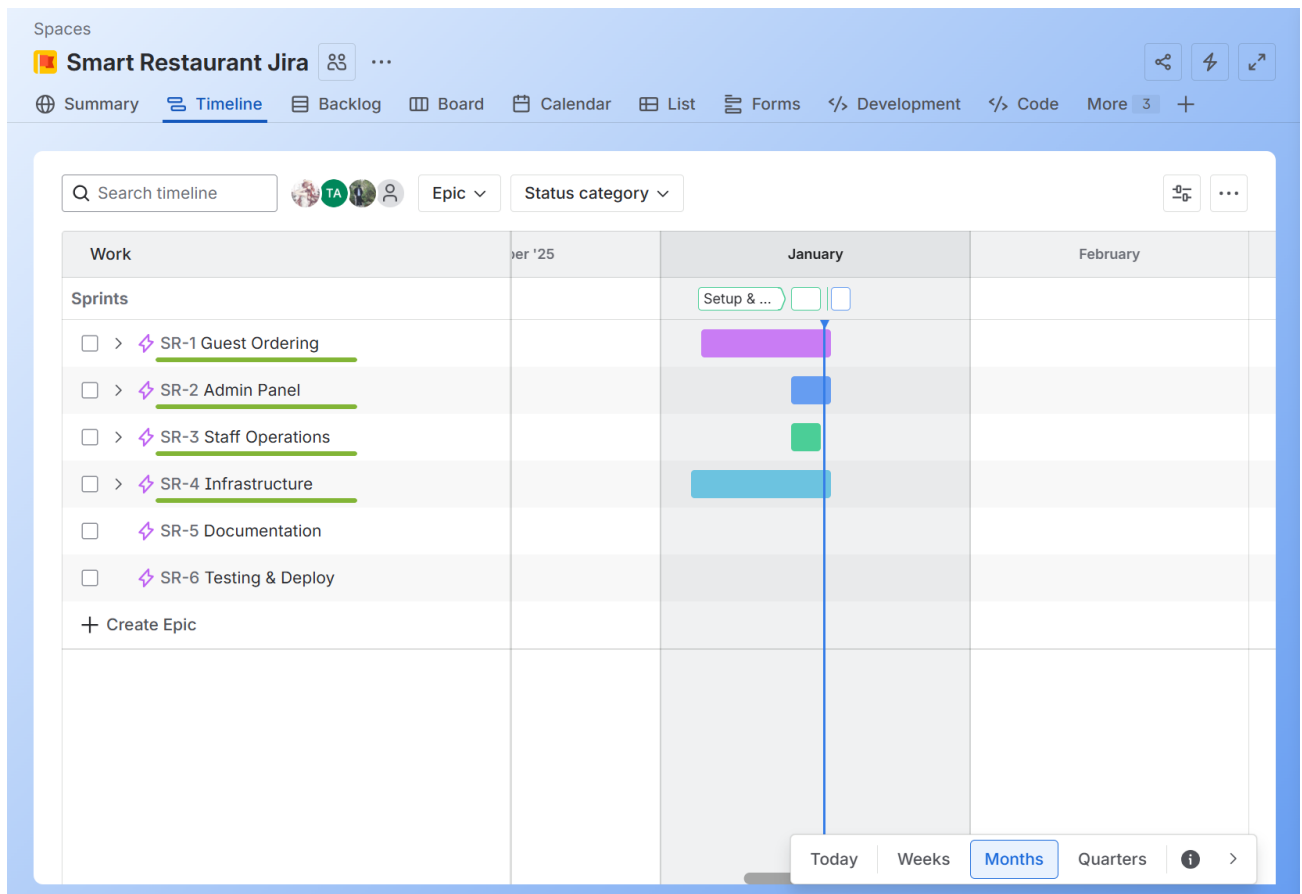
Gaaus56 authored and angquoc committed 2 weeks ago

380c3cb

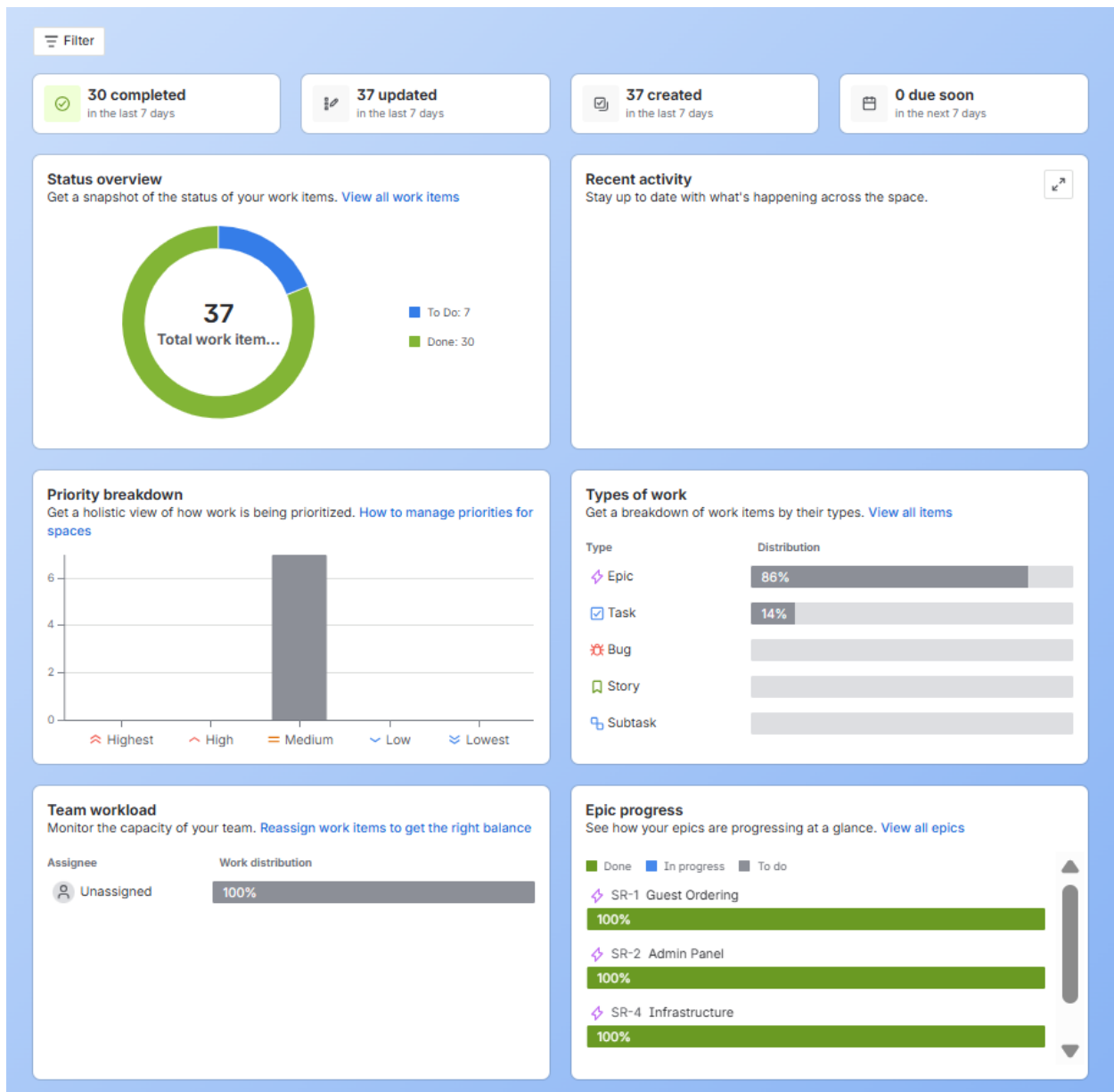
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7. Lộ trình dự án trên Jira

7.1. Jira Project Roadmap



7.2. Báo cáo tác vụ Jira (Jira Task Report)



8. Bài học kinh nghiệm

- Thống nhất Database từ đầu giúp giảm thiểu việc sửa lỗi ở giai đoạn sau.
- Việc chia nhỏ Task trên Jira giúp kiểm soát tiến độ tốt hơn là làm việc theo cảm tính.
- Code Review chéo giúp phát hiện lỗi sớm và nâng cao chất lượng mã nguồn.

9. Kết luận

Nhóm đã phối hợp hiệu quả với sự phân chia vai trò rõ ràng, duy trì giao tiếp nhất quán và sử dụng thành thạo các công cụ quản lý dự án. Việc áp dụng GitHub và Jira đã đảm bảo tính minh bạch, trách nhiệm cá nhân và giúp dự án hoàn thành đúng tiến độ đề ra.