

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 Thé 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.
-

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

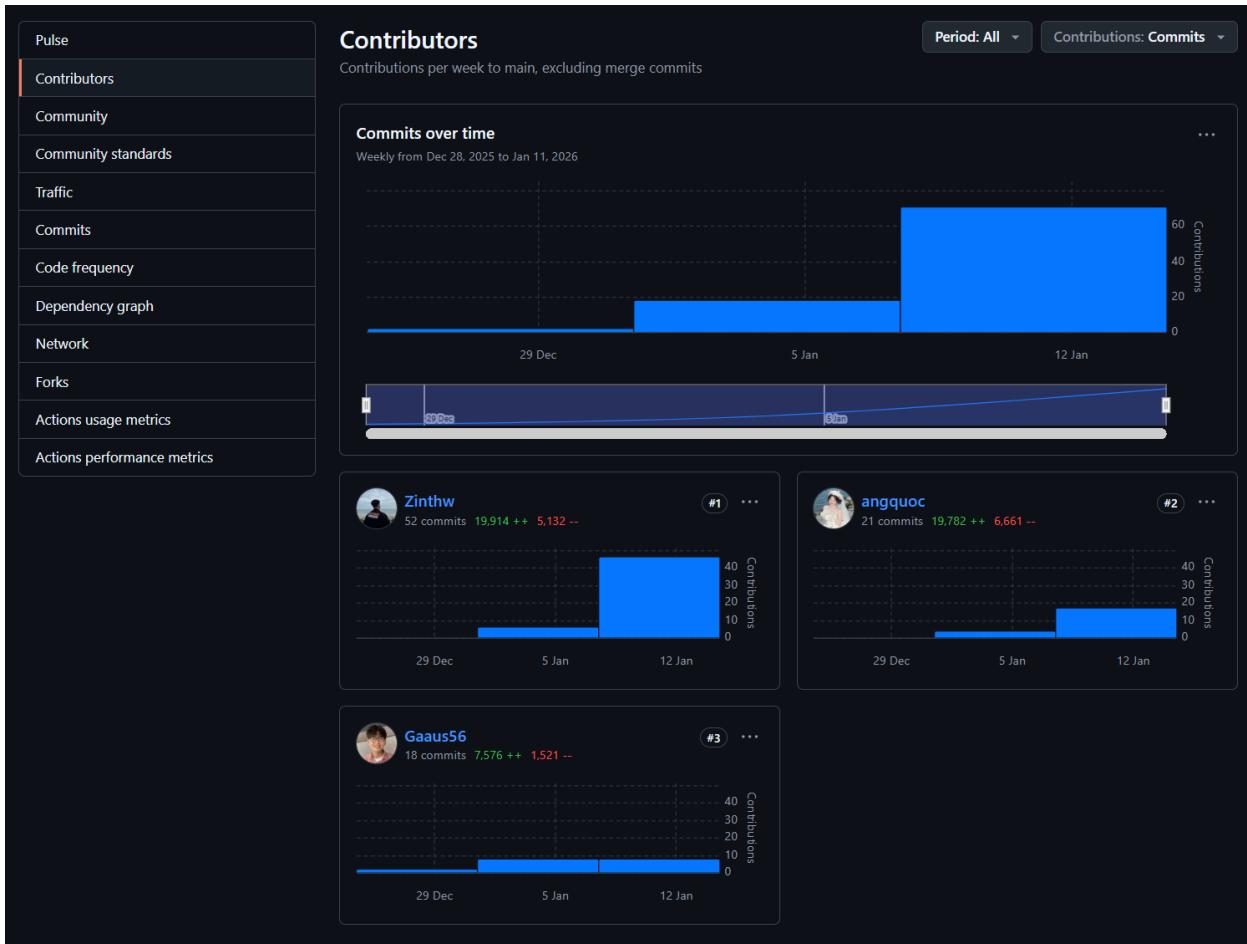
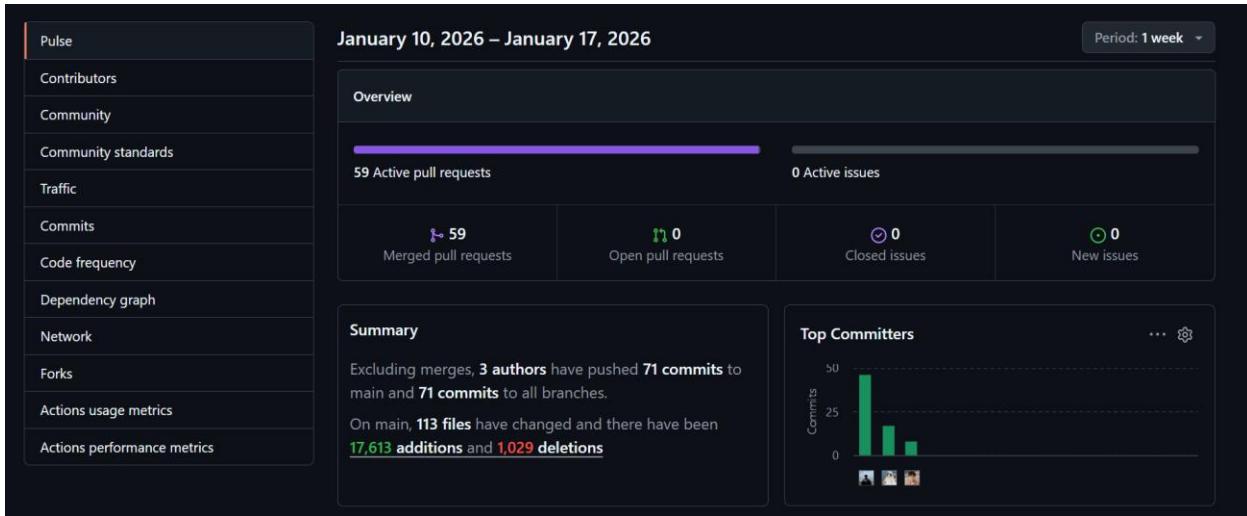
Hoạt động	Tần suất	Hình thức
Thảo luận hàng ngày	Hàng ngày	Nhắn tin qua Zalo
Hợp Sprint (Tuần)	1 lần/tuần	Google Meet
Code Review	Sau khi xong 1 tính năng	Trên GitHub (Pull Request)
Demo & Tích hợp	Cuối mỗi Sprint	Google Meet

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.

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	Gauss56 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	0aaaca7a	
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	
<hr/>			
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	f0ecaf8	
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	angguoc committed 8 hours ago	7558568	View	Copy	Link
feat: add reward points API and fix missing dish status for waiters	angguoc committed 8 hours ago	7dbbe95	View	Copy	Link
Merge pull request #50 from TranAn205/feature/waiter-bill-printing	Zinthw authored 10 hours ago	Verified 3e0f675	View	Copy	Link
feat: Add bill printing feature with Vietnamese font support	Zinthw committed 11 hours ago	f1ebf8d	View	Copy	Link
Merge pull request #49 from TranAn205/fix-admin	Zinthw authored 20 hours ago	Verified 07a1b0f	View	Copy	Link
Merge pull request #48 from TranAn205/fix/kitchen-order-flow	Zinthw authored 20 hours ago	Verified 91842c4	View	Copy	Link
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	Zinthw committed 20 hours ago	8fffacf	View	Copy	Link
feat: add popularity sort to backend menu API	Zinthw committed 20 hours ago	9af8c1b	View	Copy	Link
feat: add sort by popularity and chef recommendation filter	Zinthw committed 20 hours ago	4c866d9	View	Copy	Link
fix: related items image loading	Zinthw committed yesterday	ed311e5	View	Copy	Link
feat: implement 6 critical features for self-assessment	Zinthw committed yesterday	15c97c8	View	Copy	Link
Merge pull request #47 from TranAn205/fix/kitchen-order-flow	Zinthw authored yesterday	Verified f132193	View	Copy	Link

Commits on Jan 17, 2026

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

Merge pull request #43 from TranAn205/fix/admin-issues	View	Verified	151bd90	Copy	Compare
Zinthw authored yesterday					
fix(admin): Fix sidebar sticky positioning and add chart to PDF export	View		9ed745c	Copy	Compare
Zinthw committed yesterday					
Commits on Jan 16, 2026					
fix(admin): Add socket.io-client, fix QR dialog, charts, staff, print invoice	View		956cb86	Copy	Compare
Zinthw committed yesterday					
fix(admin): Fix order NaN, staff toggle, add chart, print invoice	View		1f7d19a	Copy	Compare
Zinthw committed yesterday					
fix(admin): Fix QR code display - use API_BASE_URL, add auto-generate when opening dialog	View		6d688d3	Copy	Compare
Zinthw committed yesterday					
Merge pull request #42 from TranAn205/feature/payment-workflow-refactor	View	Verified	a1590b7	Copy	Compare
angquoc authored yesterday					
fix: define missing readyOrdersCount variable	View		41ca7f3	Copy	Compare
angquoc committed yesterday					
Merge pull request #41 from TranAn205/feature/payment-workflow-refactor	View	Verified	d9485e6	Copy	Compare
angquoc authored yesterday					
fix: resolve conflict by accepting current payment badges	View		0a9bdf8	Copy	Compare
angquoc committed yesterday					
feat(frontend): waiter dashboard, api client and layout updates	View		de4ea85	Copy	Compare
angquoc committed yesterday					
feat(guest): payment request, checkout and review pages	View		7890a0d	Copy	Compare
angquoc committed yesterday					
feat(backend): implement payment, order and review logic	View		65da418	Copy	Compare
angquoc committed yesterday					
Merge pull request #40 from TranAn205/fix/kitchen-improvements	View	Verified	0dc4c7a	Copy	Compare
Zinthw authored yesterday					
fix(kitchen): Remove refresh button	View		83fb33	Copy	Compare
Zinthw committed yesterday					
fix(kitchen): Add sound notification, remove Key button	View		6d61f12	Copy	Compare
Zinthw committed yesterday					
Merge pull request #39 from TranAn205/fix/waiter-improvements	View	Verified	599a72f	Copy	Compare
Zinthw authored yesterday					
fix(waiter): Improve UI - group ready items by table, add sound notification, simplify header	View		bfd6034	Copy	Compare
Zinthw committed yesterday					
fix(admin): Fix sidebar footer - always show admin info and logout	View		0d192d0	Copy	Compare
Zinthw committed yesterday					
Merge pull request #38 from TranAn205/feature/admin-enhancements	View	Verified	5838856	Copy	Compare
Zinthw authored yesterday					
docs: Complete all project documentation with team info	View		313e252	Copy	Compare
Zinthw committed yesterday					
docs: Complete 03-execution documentation with team info and progress	View		b9deb96	Copy	Compare
Zinthw committed yesterday					
docs: Update team info with names, IDs, emails and GitHub links	View		4b4cdcb	Copy	Compare
Zinthw committed yesterday					
docs: Update team member info in README and SELF_ASSESSMENT_REPORT	View		d1cc0af	Copy	Compare
Zinthw committed yesterday					

Commits on Jan 16, 2026					
docs: Update team member info in README and SELF_ASSESSMENT_REPORT	...	Zinthw committed yesterday	d1cc0af		
Merge pull request #37 from TranAn205/feature/admin-enhancements	...	Zinthw authored yesterday	326c2e8		
fix(staff): Correct API endpoint for staff registration	...	Zinthw committed yesterday	342a871		
fix: Add full_name to waiter/kitchen in seed.js		Zinthw committed yesterday	7ddbb0d		
fix(staff): Add backend API for listing staff and update status	...	Zinthw committed yesterday	e87bca1		
fix(reports): Fix PDF Vietnamese font encoding and currency format	...	Zinthw committed yesterday	8b24693		
feat(reports): Add PDF and Excel export functionality	...	Zinthw committed yesterday	4729ead		
feat(dashboard): Replace bar chart with Line Chart for revenue	...	Zinthw committed yesterday	8734f2d		
feat(admin): Add Order Detail page and Tables pagination	...	Zinthw committed yesterday	405ee86		
feat(admin): Add Orders, Staff pages, Dashboard charts, Menu sort	...	Zinthw committed yesterday	344f7a6		
Merge pull request #36 from TranAn205/feature/add-utility-hooks	...	angquoc authored 2 days ago	57d6e44		

feat: add useToast and usesMobile hooks	Zinthw committed 2 days ago	49f1e07		
Delete how --no-patch b9bdcfd	angquoc authored 2 days ago	f36fedf		
Delete et --hard 05bf232	angquoc authored 2 days ago	c3cc81b		
Merge pull request #35 from TranAn205/feat/user-management	Gaaus56 authored 2 days ago	77a7b09		
feat(backend): Add user and superadmin management	Gaaus56 committed 2 days ago	79f4ca4		
Merge pull request #34 from TranAn205/feat/customer-api	Gaaus56 authored 2 days ago	853b64c		
feat(backend): Add customer profile API	Gaaus56 committed 2 days ago	566bc14		
Merge pull request #33 from TranAn205/feature/review-profile	Zinthw authored 2 days ago	f07c5b2		
feat(frontend): Add review and profile pages	Zinthw committed 2 days ago	5b20bd1		
Merge pull request #32 from TranAn205/feat/reviews-api	Gaaus56 authored 2 days ago	3c74cef		
feat(backend): Add menu item reviews API	Gaaus56 committed 2 days ago	4845746		
Merge pull request #31 from TranAn205/feature/admin-reports-dashboard	angquoc authored 2 days ago	e713df5		

<p>feat(frontend): Add reports dashboard with charts</p> <p> angquoc committed 2 days ago</p>	dc26b24	  
<p>Merge pull request #30 from TranAn205/feat/reports-api</p> <p> Gaaus56 authored 2 days ago</p>	 a9b7cd9	  
<p>feat(backend): Add revenue and analytics API</p> <p> Gaaus56 committed 2 days ago</p>	c0aa3ca	  
- Commits on Jan 15, 2026		
<p>Merge pull request #29 from TranAn205/feature/payment-pages</p> <p> Zinthw committed 2 days ago</p>	6fe62af	  
<p>feat(frontend): Add payment pages</p> <p> Zinthw committed 2 days ago</p>	dace9d1	  
<p>Merge pull request #28 from TranAn205/feat/payment-api</p> <p> Gaaus56 committed 3 days ago</p>	5b6e1e8	  
<p>feat(backend): Add payment and billing API</p> <p> Gaaus56 committed 3 days ago</p>	ded130e	  
- Commits on Jan 14, 2026		
<p>Merge pull request #27 from TranAn205/feature/admin-password-pages</p> <p> angquoc committed 3 days ago</p>	d6e4435	  
<p>feat(frontend): Add admin password management</p> <p> angquoc committed 3 days ago</p>	292eeda	  
<p>Merge pull request #26 from TranAn205/feature/waiter-order-management</p> <p> angquoc committed 4 days ago</p>	bf8dece	  
<p>feat(frontend): Add waiter order management</p> <p> angquoc committed 4 days ago</p>	99838cb	  
- Commits on Jan 13, 2026		
<p>feat(frontend): Add Kitchen Display System with real-time</p> <p> angquoc committed 4 days ago</p>	118009a	  
<p>Merge pull request #24 from TranAn205/feat/kitchen-waiter-api</p> <p> Gaaus56 committed 5 days ago</p>	ddbaa3d	  
<p>feat(backend): Add kitchen and waiter API with controllers</p> <p> Gaaus56 committed 5 days ago</p>	3818452	  
- Commits on Jan 12, 2026		
<p>Merge pull request #23 from TranAn205/feature/admin-table-management</p> <p> angquoc committed 5 days ago</p>	64131cf	  
<p>feat(frontend): Add table management with QR codes</p> <p> angquoc committed 5 days ago</p>	71cd9fe	  
<p>Merge pull request #22 from TranAn205/feat/tables-qr-api</p> <p> Gaaus56 committed last week</p>	7abc5d0	  
<p>feat(backend): Add table management and QR generation API</p> <p> Gaaus56 committed last week</p>	ad15f8e	  
- Commits on Jan 11, 2026		
<p>Merge pull request #21 from TranAn205/feature/admin-menu-management</p> <p> angquoc committed last week</p>	c0e4a2e	  
<p>feat(frontend): Add menu management CRUD</p> <p> angquoc committed last week</p>	f4606a9	  
<p>Merge pull request #20 from TranAn205/feature/admin-dashboard-stats</p> <p> angquoc committed last week</p>	9cce69b	  

feat(frontend): Add admin dashboard with stats  angquoc committed last week	
-o Commits on Jan 10, 2026	
Merge pull request #17 from TranAn205/feature/admin-dashboard-layout  	
 angquoc committed last week	
feat(frontend): Add admin dashboard layout  angquoc committed last week	
Merge pull request #16 from TranAn205/feature/admin-login-page  	
 angquoc committed last week	
feat(frontend): Add admin login page  angquoc committed last week	
Merge pull request #14 from TranAn205/feature/guest-auth-pages  	
 angquoc committed last week	
feat(frontend): Add guest login and registration  angquoc committed last week	
Merge pull request #13 from TranAn205/feature/order-tracking  	
 Zinthw committed last week	
feat(frontend): Add real-time order status tracking  Zinthw committed last week	
Merge pull request #12 from TranAn205/feature/checkout-page  	
 Zinthw committed last week	
feat(frontend): Add checkout and order submission  Zinthw committed last week	
-o Commits on Jan 9, 2026	
Merge pull request #11 from TranAn205/feature/backend-orders-api  	
 Gaauas6 committed last week	
feat(backend): Add order creation and tracking API  Gaauas6 authored and angquoc committed last week	
Merge pull request #10 from TranAn205/feature/cart-context  	
 Zinthw committed last week	
feat(frontend): Add cart context and drawer  Zinthw committed last week	
-o Commits on Jan 8, 2026	
Merge pull request #9 from TranAn205/feature/guest-menu-page  	
 Zinthw authored and Zinthw committed last week	
Merge pull request #7 from TranAn205/feature/guest-menu-page  	
 Zinthw committed last week	
feat(frontend): Add guest menu page with categories  Zinthw committed last week	
Merge pull request #8 from TranAn205/feature/guest-menu-components  	
 Zinthw authored and Zinthw committed last week	
Merge branch 'feature/guest-menu-components'  Zinthw committed last week	
feat(frontend): Add guest menu components  Zinthw committed last week	
feat(frontend): Add guest menu page with categories  Zinthw committed 2 weeks ago	

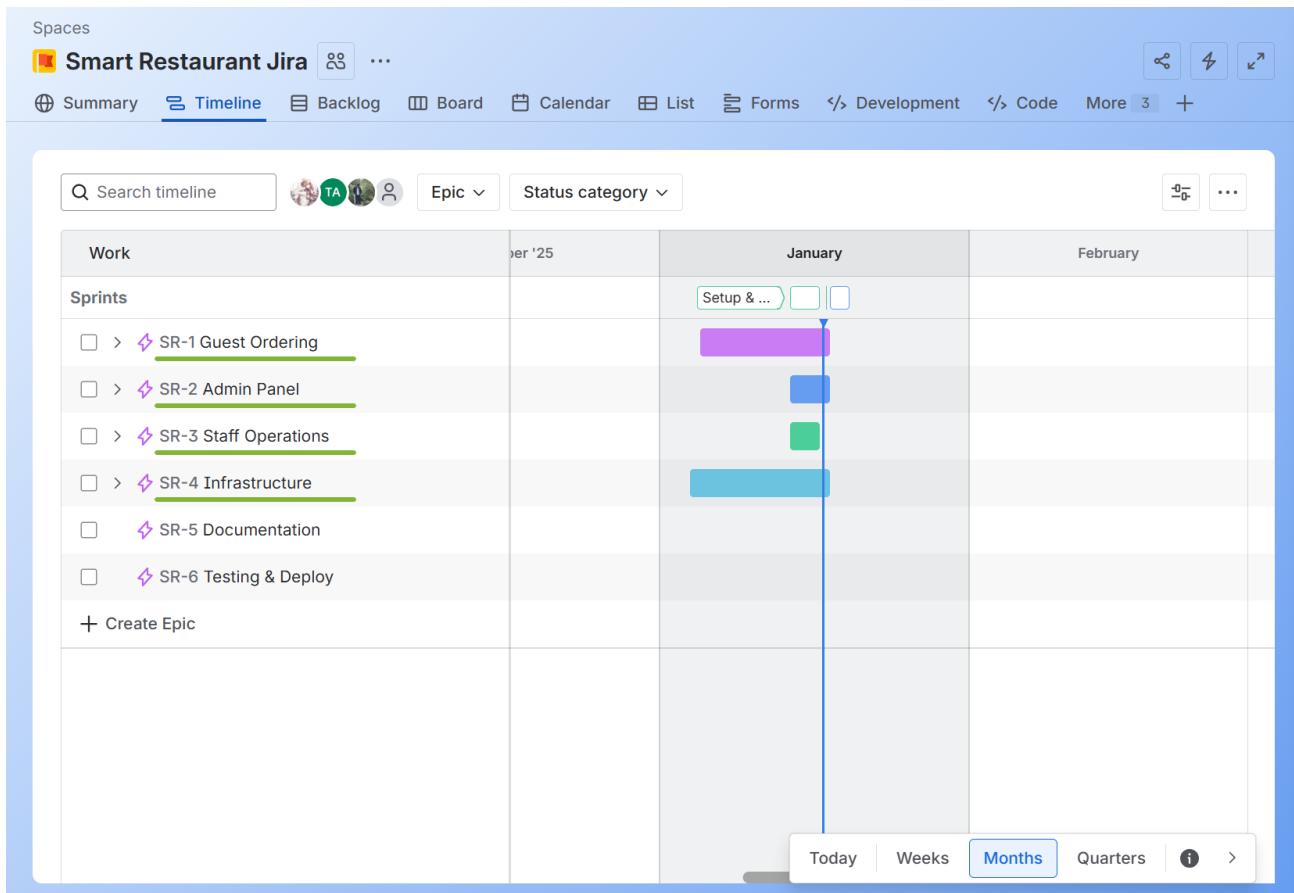
Merge pull request #5 from TranAn205/ui-core	045cc8b
angquoc committed 2 weeks ago	
Merge branch 'main' of https://github.com/TranAn205/smart-restaurant into ui-core	8131880
angquoc committed 2 weeks ago	

-o Commits on Jan 7, 2026
feat(frontend): Add UI component library
angquoc committed 2 weeks ago
3c06e98
-o 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
-o 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

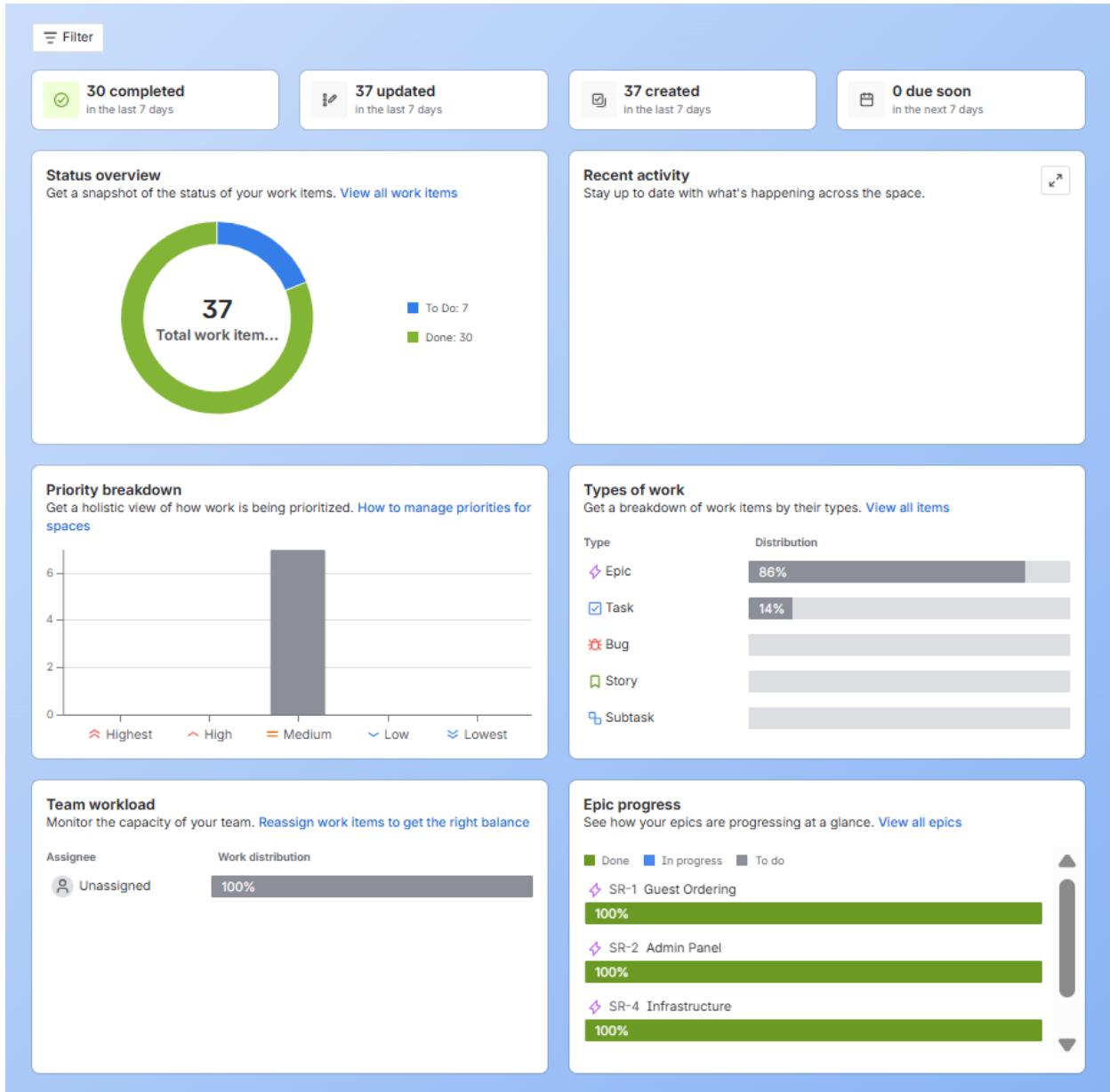
-o Commits on Jan 4, 2026
docs: Add project documentation structure
Gaaus56 authored and angquoc committed 2 weeks ago
cdb5cc8
feat(frontend): Initialize NextJS project
Gaaus56 authored and angquoc committed 2 weeks ago
2ccf8fa
feat(db): Add database schema and migrations
Gaaus56 authored and angquoc committed 2 weeks ago
f249b91
-o 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

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.