APPNOX

Next-Gen App Solutions

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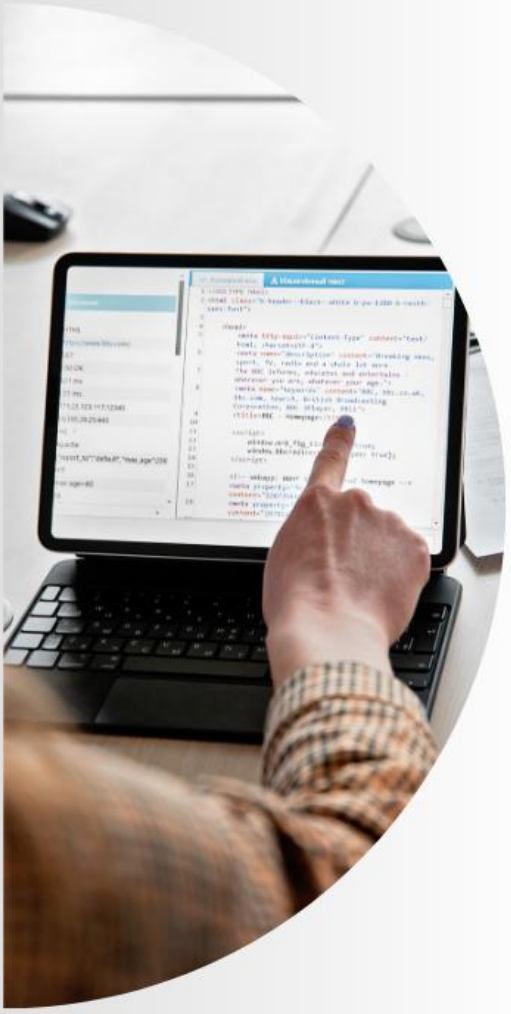

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AUTOMATION PLAN - PROJECT PROPOSAL

APPNOX
Next-Gen App Solutions

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Project Overview

Ali Al Fauzan and Sons Real Estate Co., a leading real estate group in Saudi Arabia, seeks to embark on a digital transformation initiative aimed at automating internal operations, enhancing tenant and client experiences, and modernizing its online presence. This project involves the development of a custom-built Digital Automation Platform, including an integrated ERP system, tenant and internal portals, real-time auction capabilities, and advanced analytics dashboards, fully bilingual (Arabic & English) and scalable for future expansion.

The platform will centralise workflows, automate invoicing and contract, streamline communication, and ensure full regulatory compliance with Saudi regulations (PDPL, Ejar, VAT), along with international standards like GDPR where applicable. It is designed to replace manual processes, eliminate reliance on third-party vendors, and empower Al Fauzan Real Estate to deliver innovative, data-driven services to tenants and clients.

Key Goals and Objectives

- **Digital Transformation of Internal Processes** Automate core functions like invoicing, leasing, document verification, maintenance workflows, and internal approvals through a role-based, centralized portal.
- **Enhanced Client and Tenant Experience** Deliver a seamless, mobile-first digital experience with self-service portals, real-time property auctions, chatbot support, and online contract management.
- **Modernization of Online Presence** Redesign www.alfauzan.com into a dynamic, responsive, and SEO-optimised platform capable of supporting live property auctions and tenant onboarding.
- **Integration of Core Real Estate Operations into ERP** Develop a custom ERP system to manage property, leasing, finance, and maintenance workflows, aligned specifically with Al Fauzan's business logic.
- **Full Regulatory Compliance** Ensure strict adherence to Saudi PDPL, Ejar, and VAT regulations, while also incorporating international standards like GDPR for data security and privacy.
- **Scalable and Modular Architecture** Build a platform ready for future expansion through modular design, an API-first approach, and robust micro-services support.
- **Advanced Analytics and Strategic Decision Support** Provide actionable insights via analytics dashboards, measuring occupancy, payment trends, maintenance turnaround, staff/vendor performance, and custom KPIs.
- **Mobile-first Strategy** Deliver native mobile applications (iOS & Android) to facilitate tenant/vendor interactions, real-time notifications, and on-the-go property management.

Portal Modules and Components:

Module	Component	Description	Key Benefits
Tenant Portal	Tenant Dashboard	Personalised dashboard showing rental status, lease history, payments, maintenance tickets.	Empowers tenants with self-service tools, reducing manual inquiries.
	Online Application & Onboarding	Upload documents, ID verification via OCR and selfie matching for KYC during tenant onboarding.	Faster onboarding, reduced manual work, regulatory compliance.
	Contract Management	View, sign, and track leasing contracts digitally through dynamic templates and e-signatures.	Accelerates lease execution, improves record keeping.

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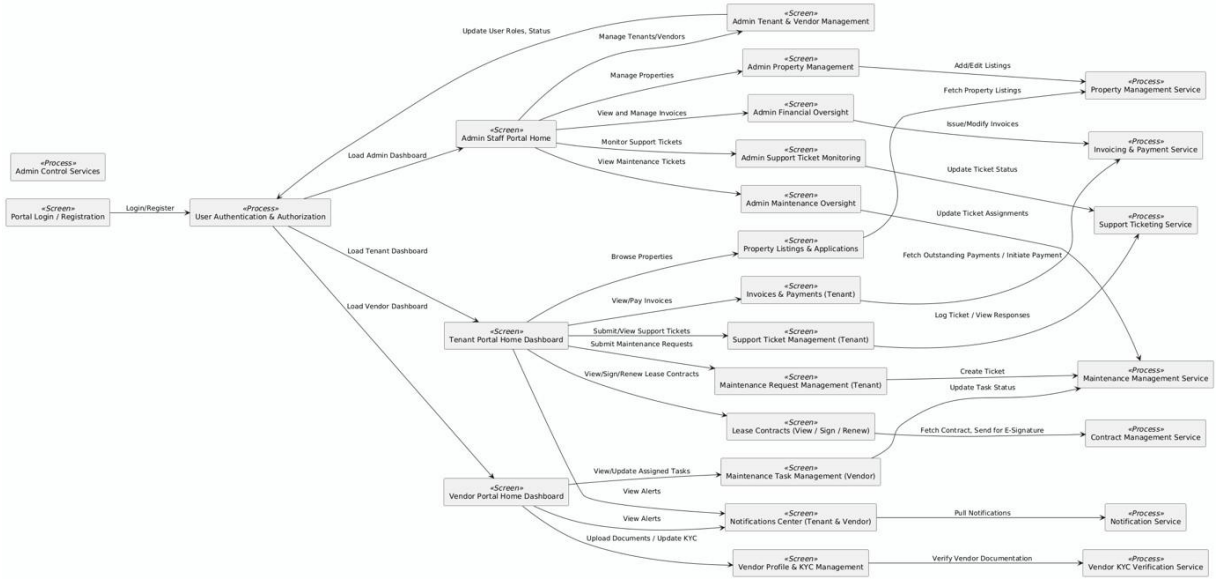
	Maintenance Request System	Submit maintenance tickets, track status, and receive updates through the portal.	Higher tenant satisfaction and transparent maintenance workflows.
	Support Ticket System	Submit service requests (complaints, inquiries) with SLA tracking and escalation rules.	Improved service quality and issue resolution tracking.
Internal Operations Portal	Role-Based Access Control (RBAC)	Different views and permissions based on role (leasing, maintenance, finance, management).	Security, data privacy, and operational clarity.
	Workflow Management	Internal task assignment, SLA-based escalation for service and leasing activities.	Streamlined processes, improved accountability.
	Automated ID Verification	OCR-based extraction from documents (Iqama, National ID, CR) + facial recognition (optional).	Faster, accurate identity verification, PDPL compliance.
	Internal Approval Workflows	Document handling and approvals for leasing, maintenance, financial tasks.	Standardised approval chains, reduced bottlenecks.
	Admin Control Panel	Centralised management for modules (e.g., auctions, invoices, contracts, user access).	Operational control from a single interface.
Vendor Management Portal	Vendor Registration and KYC	Vendors upload required documents; system verifies and tracks approval.	Ensures compliant, efficient vendor onboarding.
	Vendor Dashboard	Vendors manage contracts, invoices, support tickets via dedicated portal access.	Improved vendor lifecycle management.



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Mobile App Modules and Components:

Module	Component	Description	Key Benefits
Tenant Mobile App	Property Discovery	Browse available properties, view details, and initiate leasing directly from the app.	Increased lead conversion and faster tenant onboarding.
	Document Upload	Upload required documents (ID, Iqama, CR, licenses) directly via mobile.	Seamless mobile onboarding experience.
	Online Payment Gateway	Make token payments, rent payments, and service fee payments within the app.	Convenient, secure mobile transactions.
	E-Signature for Contracts	Sign rental contracts digitally through the app.	Faster deal closures, paperless operations.
	Personal Dashboard	View payment history, active contracts, maintenance tickets, and auction participation status.	Full visibility and control for tenants, anytime and anywhere.
	Push Notifications	Alerts for invoices, auctions, contract renewals, and support ticket updates.	Real-time engagement and proactive communication.
	Maintenance Ticket Submission	Report maintenance issues with photo/video attachments through the app.	Faster maintenance reporting and resolution.
Vendor Mobile App	Vendor Dashboard	Vendors can view assigned tasks, update progress, manage invoices, and communication history.	Better vendor collaboration and transparency.
Common Features	AI-Powered Chatbot	Chatbot handling FAQs, payment queries, service ticket creation, property recommendations (Arabic & English NLP).	24/7 support and enhanced user experience.
	Virtual Meeting Scheduler	Schedule online meetings with leasing or maintenance teams directly through the app.	Personalised support and faster issue handling.
	Multilingual Support	Full Arabic & English support throughout the mobile app.	Wider reach and user-friendliness for diverse audiences.

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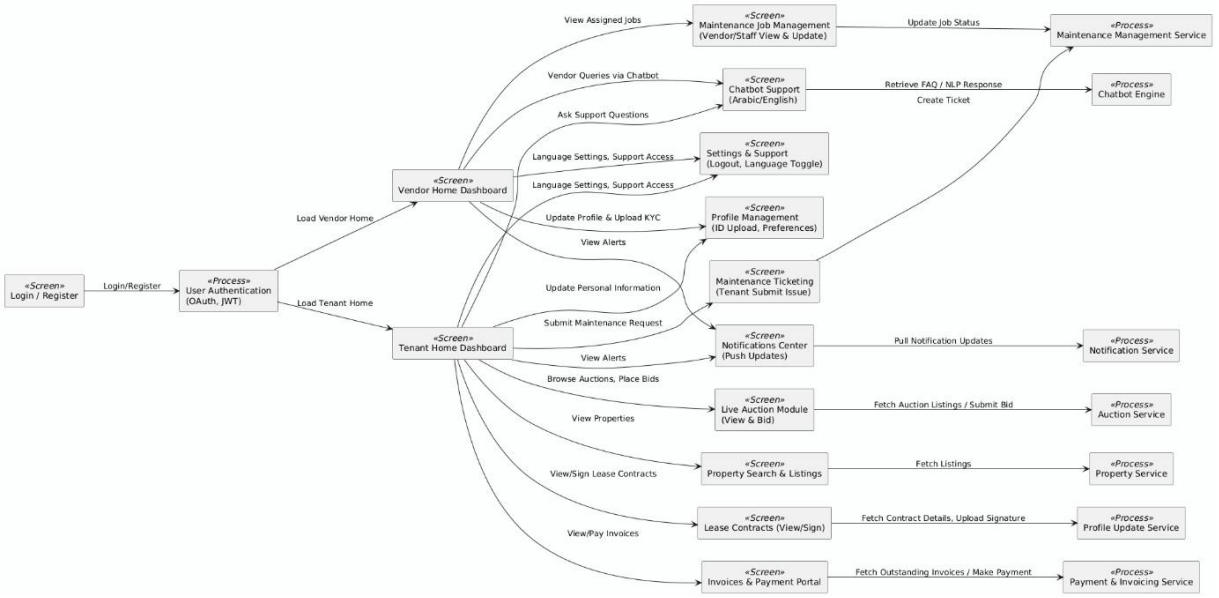

Website Modules and Components:

Module	Component	Description	Key Benefits
Public Website	Website Redesign	Full revamp of www.alfauzan.com with a modern, mobile-first, bilingual (Arabic & English) design.	Stronger brand presence, better user engagement.
	Dynamic Property Listings	Real-time listing of available units, project details, and leasing information.	Faster lead conversion and transparency for clients.
	SEO Optimisation and Analytics	SEO best practices implemented with tracking through Google Analytics or similar tools.	Higher visibility on search engines, performance tracking.
	Integrated Lead Capture Forms	Smart contact forms, inquiry capture with CRM integration.	Improved lead generation and follow-ups.
	E-commerce Style Leasing Experience	Ability for new clients to browse, upload docs, pay token amounts, and initiate contracts online.	Streamlined leasing journey, reduced admin load.
	Chatbot Integration	Arabic/English NLP-based AI chatbot for assisting visitors with inquiries and support.	24/7 client assistance, reduced response time.
	News and Updates Section	Dynamic section for company news, project updates, and event announcements.	Enhances customer communication and brand loyalty.
Live Auction Platform	Real-Time Auction Engine	Real-time bidding platform using WebSocket/Firebase technology with verified user participation.	Faster property sales, fair and transparent bidding.
	Smart Contracts for Auctions	Blockchain-ready smart contract integration for	Enhanced auction trust and security.

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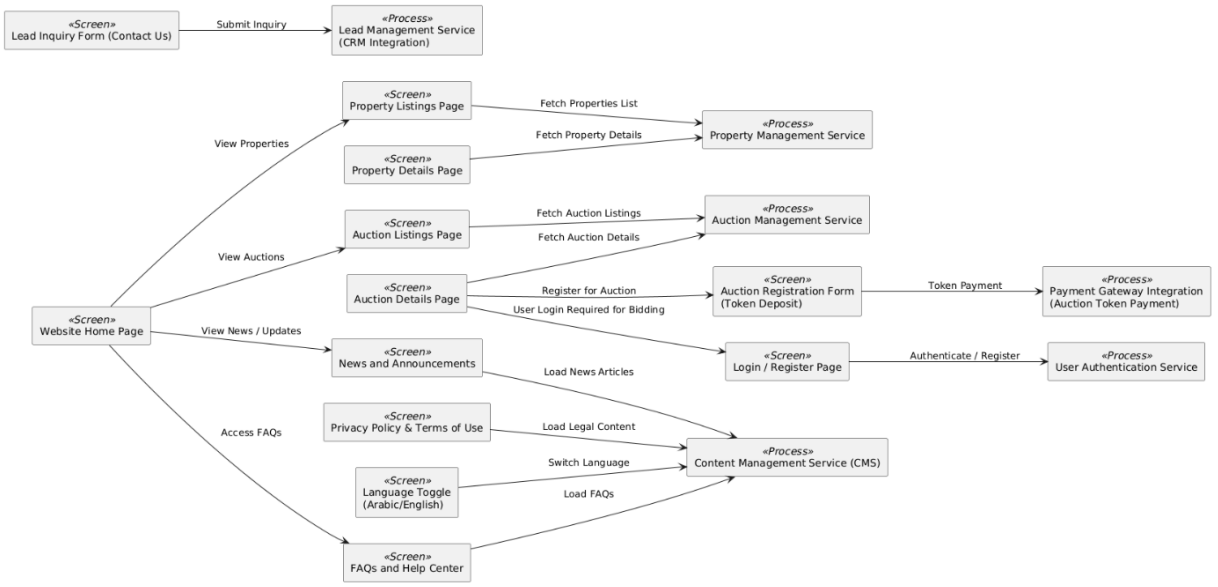
		automated winner selection and contract finalization.	
	Admin Tools for Auction Management	Tools for auction creation, winner selection, payment initiation, and contract generation.	Simplifies auction operations for the company.
Support Section	FAQs and Support Portal	Self-help FAQs, support articles, and ticket submission for visitors.	Reduces direct support load and enhances user satisfaction.



Admin Panel Modules and Components:

Module	Component	Description	Key Benefits
User & Role Management	Role-Based Access Control (RBAC)	Define and manage roles (Admin, Manager, Accountant, Support Agent, Vendor Manager, etc.).	Secure, structured access; ensures data privacy and operational clarity.
	User Onboarding and Management	Create, edit, deactivate, or delete users with audit logs.	Full control over system access and user lifecycle.
Property Management	Property Listings Management	Add, edit, publish, or remove properties across residential, commercial, and mixed-use categories.	Real-time control over available inventory.
	Auction Creation and Management	Create new auctions, set reserve prices, monitor live bidding, declare winners, and finalise deals.	Streamlines real-time property sales through auctions.
Tenant & Vendor Management	Tenant Onboarding & Profile Management	View and manage tenant profiles, documents, leasing contracts, and support history.	Centralised tenant control, fast resolution management.
	Vendor Registration and Compliance	Approve/reject vendor applications, monitor compliance documents, and manage contracts.	Maintain vendor quality and operational compliance.

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Contract & Document Control	Dynamic Contract Template Management	Create, update, and manage dynamic templates for leases, auction contracts, maintenance SLAs, etc.	Rapid contract generation, legal consistency.
	Document Verification Logs	Review verification steps for ID, licenses, and business documents, with audit trails for PDPL compliance.	Ensures full regulatory compliance and reduces risks.
Finance Management	Invoicing and Payment Monitoring	Generate rent/service invoices, track payment status, issue reminders, and handle disputes.	Improved financial operations and cash flow transparency.
	Refund and Adjustment Management	Approve/refuse refunds, handle adjustments against services or property payments.	Financial flexibility and better client satisfaction.
Support and Maintenance	Ticket Monitoring and SLA Tracking	View, assign, escalate, and close support or maintenance tickets with defined SLA timelines.	Faster issue resolution and higher tenant satisfaction.
Analytics & Reporting	KPI Dashboard and Custom Reports	Real-time insights on occupancy, payments, complaints turnaround, auction statistics, etc.	Data-driven strategic decision-making.
Notifications Management	WhatsApp/SMS/Em a il Templates	Manage and customise notification templates for invoices, contracts, maintenance alerts, etc.	Personalised and proactive communication with clients and vendors.
System Settings	Language, Branding, and Policy Management	Update platform language settings, upload logos, configure privacy policies and terms.	Flexibility in maintaining brand and regulatory updates.
Security & Audit	Access Logs and Activity Monitoring	Monitor who accessed what, when, and what changes were made, with detailed audit trails.	Enhances platform security and ensures regulatory traceability.

User Personas Overview:

Persona	Platform (Mobile / Portal / Website)	Primary Role	Key Actions	Needs / Expectations
New Client / Prospect	Website, Mobile App	Property Explorer, Bidder	Browse properties, join auctions, submit documents, make token payments.	Fast, smooth browsing; easy application process; trusted transactions.
Existing Tenant	Mobile App, Portal	Lease Manager, Support Seeker	Manage rental payments, view contracts, request maintenance, track support tickets.	Transparency , quick support, easy contract renewals.

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Internal Leasing Agent	Portal, Admin Panel	Tenant Onboarder, Deal Closer	Approve applications, verify documents, create contracts, manage leasing tasks.	Fast tenant onboarding, minimal manual tasks, SLA-based workflows.
Internal Maintenance Staff	Portal, Mobile App (optional)	Maintenance Handler	Receive, manage, and close maintenance requests; update statuses.	Clear task assignment, easy mobile updates, SLA tracking.
Property Manager	Portal, Admin Panel	Portfolio Overseer	Monitor occupancy, revenue, contract renewals, tenant/vendor issues.	Real-time data, quick escalation management, operational control.
Vendor (Service Provider)	Portal, Mobile App	Contractor / Service Provider	Submit invoices, update task progress, manage maintenance requests.	Transparent task assignment, payment tracking, mobile-friendly access.
Auction Participant	Website, Mobile App	Property Bidder	Register, verify identity, participate in live auctions, complete contracts.	Secure auction process, fair winner announcement, easy payment and signing.
Finance / Accountant	Portal, Admin Panel	Payment and Invoice Manager	Generate invoices, track payments, manage refunds, view financial reports.	Error-free billing, real-time financial insights, audit-ready records.
IT Admin / System Admin	Admin Panel	System Manager	Manage users, roles, security settings, backups, logs, and updates.	Full platform control, high security, easy system maintenance.
Customer Support Agent	Portal, Admin Panel	Ticket Resolver, Client Communicator	Manage support tickets, reply to tenant/vendor inquiries, escalate issues.	Fast ticket handling, SLA monitoring, easy escalation workflows.
Top Management / Executives	Portal, Admin Panel	Strategic Decision Maker	Access dashboards, occupancy KPIs, financial performance reports.	Strategic oversight, real-time operational metrics, business analytics.

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Content Management Features in the Admin Panel:

Feature	Description	User Benefit
Property Listing Management	Create, edit, update, and remove properties with rich content (images, videos, descriptions, price, availability status).	Real-time control over property inventory; keeps listings up-to-date and appealing.
Auction Management	Launch, manage, and close real estate auctions, set reserve prices, monitor bids in real time.	Quick setup and control of property auctions, faster sales cycles.
News and Updates Publishing	Publish and manage company news, project announcements, event updates on the website.	Keeps clients informed and engaged, improves brand visibility.
SEO Metadata Management	Add and edit meta titles, descriptions, keywords for each property, news article, and page.	Improves website's SEO ranking, drives more organic traffic.
Banner and Promotional Content Control	Upload, schedule, and manage homepage banners, promotional messages, and advertisements.	Ability to run targeted campaigns and promotions dynamically.
Document Template Management	Create and edit templates for contracts, invoices, KYC communications, maintenance SLAs.	Standardised documents, faster document generation, legal consistency.
Media Library Management	Central repository to upload and organise images, videos, PDFs, and marketing materials.	Easy retrieval and reuse of assets across listings and news updates.
Form Builder & Management	Create and edit lead capture forms, contact forms, tenant application forms without coding.	Customisable forms for different needs, faster adaptation to campaigns.
FAQ and Help Center Management	Add and update FAQ entries and support articles accessible from website and portal.	Reduces support queries by providing self-service help options.
Notification Content Management	Customise WhatsApp/SMS/Email templates for system alerts, invoices, maintenance updates.	Personalised and localised communication with clients and vendors.
CMS User Roles and Approval Workflow	Define who can draft, edit, and publish content with approval processes for sensitive updates.	Maintains content quality and ensures governance over public-facing content.
Multi-Language Content Support	Manage Arabic and English content versions side-by-side for all website and portal materials.	Supports bilingual audiences, wider market reach, regulatory compliance.

Functional Details:

ID	Module	Functionality	Description	Priority
FRD-01	Website	Dynamic Property Listings	Display real-time available units with search, filter, and detail views (bilingual: Arabic & English).	High
FRD-02	Website	Lead Capture Forms	Smart forms for inquiries, leasing requests, and auction registrations, integrated with CRM.	High
FRD-03	Website	Real-Time Auction Engine	WebSocket or Firebase-based live bidding system for properties with	High

`			reserve price and auto-bid support.	
FRD-04	Website	Content Management System (CMS)	Admins can manage properties, news, banners, SEO metadata, FAQs, and media uploads.	High
FRD-05	Website	SEO Optimisation	Embed meta titles, descriptions, and schema for better search engine rankings.	Medium
FRD-06	Portal - Tenant	Tenant Dashboard	View active lease contracts, rental payment status, ticket status, and auction participation history.	High
FRD-07	Portal - Tenant	Online Maintenance Request	Tenants can submit maintenance issues, with file upload (images/videos), status tracking.	High
FRD-08	Portal - Tenant	Online Payments	Token payments, rental and service fee payments via integrated payment gateway.	High
FRD-09	Portal - Tenant	Contract Management	Tenants view, sign, and download digital lease agreements and renewal offers.	High
FRD-10	Portal - Internal	Workflow Management	SLA-based task assignment, progress tracking, escalation mechanisms for leasing, finance, maintenance.	High
FRD-11	Portal - Internal	Document Verification Automation	OCR scanning, selfie matching, and backend verification workflows for tenant and vendor KYC.	High
FRD-12	Portal - Vendor	Vendor Registration & Dashboard	Vendors register, upload documents, track tasks, submit invoices, and view contract statuses.	High
FRD-13	Mobile App - Tenant	Mobile Property Discovery	Browse available properties, apply for leasing, and join auctions via iOS/Android app.	High
FRD-14	Mobile App - Tenant	Mobile Payments	Make payments for leasing and services through the mobile app securely.	High
FRD-15	Mobile App - Tenant	Maintenance Requests via App	Submit and track maintenance requests with media attachments through mobile.	High
FRD-16	Mobile App - Notifications	Push Notifications	Invoices, auctions, contracts, and maintenance updates pushed to tenants and vendors.	High
FRD-17	Mobile App - Chatbot	AI Chatbot	Arabic & English AI-powered chatbot for FAQs, ticketing, property recommendations.	High
FRD-18	Admin Panel	User Role and Permission Management	Define/manage roles like Admin, Manager, Accountant, Vendor Manager, and Support Agent.	High
FRD-19	Admin Panel	Auction Management	Admin create/manage auctions, verify participants, monitor bidding, declare winners.	High

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FRD-20	Admin Panel	Invoicing and Payment Control	Issue, monitor, and manage invoices and payment confirmations, refunds if needed.	High
FRD-21	Admin Panel	Analytics and Reporting	Dashboards for occupancy rates, payment trends, maintenance turnaround, vendor/staff performance.	High
FRD-22	Admin Panel	CMS for Website	Manage website content: property listings, banners, articles, FAQs, SEO fields, etc.	High
FRD-23	Admin Panel	Communicatio n Management	Configure WhatsApp, SMS, and Email templates for automated alerts and communication.	Medium
FRD-24	Admin Panel	Document Template Management	Manage templates for contracts, invoices, auction certificates.	Medium
FRD-25	Admin Panel	SLA Monitoring for Tickets	Monitor, escalate, and report on SLA compliance for support and maintenance tickets.	High
FRD-26	Security	Audit Logs	System-wide activity logs for tracking user actions, changes, and security events.	High
FRD-27	Security	OAuth, JWT, SSL, PDPL Compliance	Ensure all user authentication, session management, and data storage meet Saudi and international standards.	High
FRD-28	Backup and Recovery	Disaster Recovery Strategy	Automated daily backups, version control, and defined RTO/RPO strategies.	High
FRD-29	Integration	API-First Architecture	Enable integration with third-party ERP, CRM, and finance systems.	Medium
FRD-30	ERP Core	Property Management Module	ERP system for managing properties, leases, finance workflows, maintenance tracking.	High

Technical Details:

ID	Module/Area	Technical Requirement	Description	Priority
TRD-01	Website	Mobile-First Responsive Design	Website must be fully responsive and optimized for mobile, tablet, and desktop.	High
TRD-02	Website	Bilingual (Arabic & English) Support	Full support for bilingual content across all web pages, listings, and forms.	High
TRD-03	Website	SEO Best Practices Compliance	Meta titles, descriptions, alt text, and structured data (schema.org) implemented.	Medium
TRD-04	Portal & Admin	Role-Based Access Control (RBAC)	Different access levels for Admins, Managers, Accountants, Support Agents, Vendors, and Tenants.	High
TRD-05	Portal	OCR and AI-based ID Verification	Integration of OCR technology for document extraction and AI facial	High

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			recognition for ID verification.	
TRD-06	Portal	E-Signature Integration	Seamless integration of a legally compliant e-signature solution for contracts.	High
TRD-07	Mobile App	Native iOS & Android Development	Mobile apps must be developed natively or using hybrid technologies like Flutter/React Native with best performance.	High
TRD-08	Mobile App	Push Notification Integration	Integration with Firebase Cloud Messaging (FCM) or equivalent for real-time push notifications.	High
TRD-09	Mobile App	Secure In-App Payment	Integration with payment gateways (e.g., Hyperpay, STC Pay) following PCI DSS compliance.	High
TRD-10	Mobile App & Portal	AI Chatbot Integration	AI/NLP chatbot supporting Arabic and English for FAQs, service tickets, and property recommendations.	Medium
TRD-11	Admin Panel	Content Management System (CMS)	Enable dynamic management of properties, news, banners, SEO fields, FAQs, and promotional content.	High
TRD-12	Admin Panel	Auction Management System	Real-time auction management with admin-side control for bids, reserves, and winner declaration.	High
TRD-13	Database	Scalable, Secure Database Architecture	Relational database (e.g., PostgreSQL, MS SQL Server) with encrypted storage for sensitive data.	High
TRD-14	Platform Wide	API-First Architecture	RESTful APIs for integration with ERP, CRM, third-party platforms, and mobile applications.	High
TRD-15	Platform Wide	OAuth 2.0 / JWT Authentication	Secure authentication and authorization protocols for all user interactions.	High
TRD-16	Platform Wide	GDPR and PDPL Compliance	Data privacy compliance according to Saudi PDPL and international GDPR standards, including consent management and user rights.	High
TRD-17	Platform Wide	SSL/TLS Encryption	All data transmission secured with SSL/TLS 1.2 or higher.	High
TRD-18	Platform Wide	Multi-Factor Authentication (MFA)	Optional MFA for admin and sensitive user roles.	Medium
TRD-19	Platform Wide	Load Balancing and Auto-Scaling	Platform to handle 10,000+ concurrent users with horizontal scaling support.	High
TRD-20	Platform Wide	Disaster Recovery & Daily Backup	Automated full and incremental backups with	High

			RTO (Recovery Time Objective) < 4 hours and RPO (Recovery Point Objective) < 1 hour.	
TRD-21	Analytics	Real-Time KPI Dashboard	Interactive dashboards with data visualization tools for occupancy, revenue, complaints, etc.	High
TRD-22	Communications System	WhatsApp/SMS/Email Notification Gateways	Integration with messaging APIs for automated system notifications.	High
TRD-23	ERP System	Custom ERP Integration	ERP modules built to handle property management, leasing, finance, and maintenance workflows.	High
TRD-24	ERP System	Document Storage and Retrieval System	Secure document storage with version control, tagging, and retrieval options.	High
TRD-25	Platform Wide	Auto Performance Testing Pipelines	Setup CI/CD pipelines that run automated load, stress, and performance testing.	Medium
TRD-26	Mobile App & Portal	In-App Virtual Meeting Scheduling	Allow tenants and vendors to schedule virtual meetings with internal teams via app or portal.	Medium
TRD-27	Platform Wide	Audit Logs and Activity Tracking	Record all user activity for transparency, accountability, and regulatory auditing.	High
TRD-28	Hosting Infrastructure	Cloud Hosting with SLA-Backed Uptime	Hosting on reputable cloud providers (AWS, Azure) with SLA-backed 99.9% uptime.	High
TRD-29	Portal & Mobile App	SLA Tracking Engine for Support Tickets	Automated SLA monitoring and escalation for maintenance and support requests.	High

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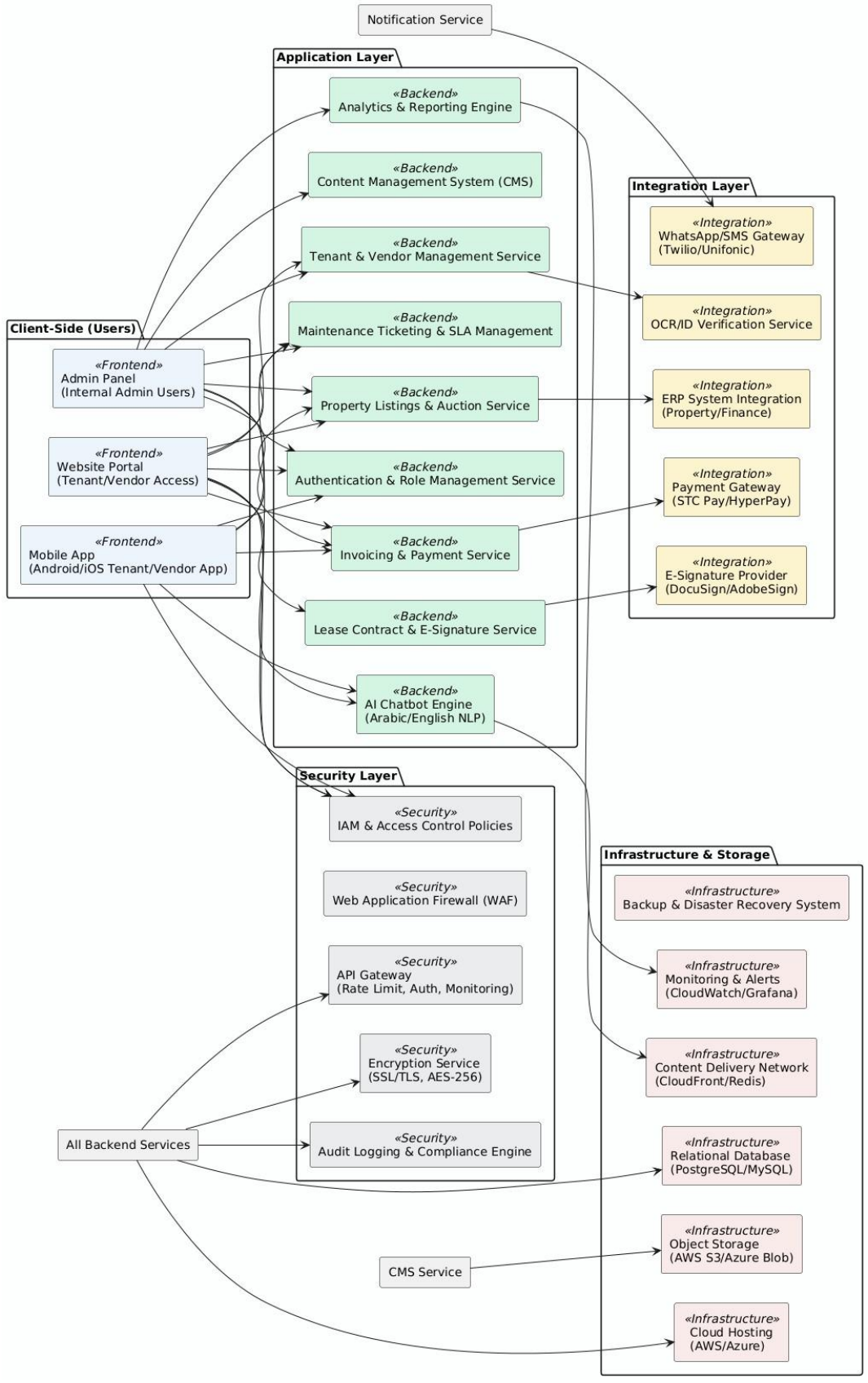
System Architecture:



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Non-Functional Details:

ID	Category	Requirement	Description	Priority
NFR-01	Performance	System Scalability	Platform must support 10,000+ concurrent users across Web and Mobile.	High
NFR-02	Performance	Response Time	System pages should load within 3 seconds under normal load conditions.	High
NFR-03	Availability	High Availability	Platform must guarantee at least 99.9% uptime with auto-scaling infrastructure.	High
NFR-04	Availability	Disaster Recovery	Recovery Time Objective (RTO) < 4 hours; Recovery Point Objective (RPO) < 1 hour.	High
NFR-05	Security	Data Encryption	All sensitive data must be encrypted at rest and in transit (SSL/TLS 1.2+).	High
NFR-06	Security	Authentication and Authorisation	OAuth 2.0 / JWT-based secure access with role-based access controls.	High
NFR-07	Security	Compliance	Full compliance with Saudi PDPL, Ejar, VAT, and GDPR where applicable.	High
NFR-08	Security	Audit Trails	All critical operations must be logged with timestamps and user IDs.	High
NFR-09	Usability	Multilingual Support	Full Arabic and English user interface across Website, Portal, and Mobile App.	High
NFR-10	Usability	Mobile Responsiveness	Portal and Website must be fully responsive across devices and browsers.	High
NFR-11	Maintainability	Modular Architecture	Code must be organised into modules/micro services for easy maintenance and upgrades.	High
NFR-12	Maintainability	Documentation	Complete system documentation (architecture, codebase, API docs, user manuals).	High
NFR-13	Maintainability	Automated Testing	Automated unit, integration, performance, and security tests via CI/CD pipelines.	Medium
NFR-14	Interoperability	API-First Design	System must provide RESTful APIs for integrations with ERP, CRM, payment gateways, etc.	High
NFR-15	Backup and Recovery	Automated Daily Backups	Full system backups must run daily with easy restore capabilities.	High
NFR-16	Legal and Compliance	Intellectual Property Ownership	All source code, documentation, and assets	High

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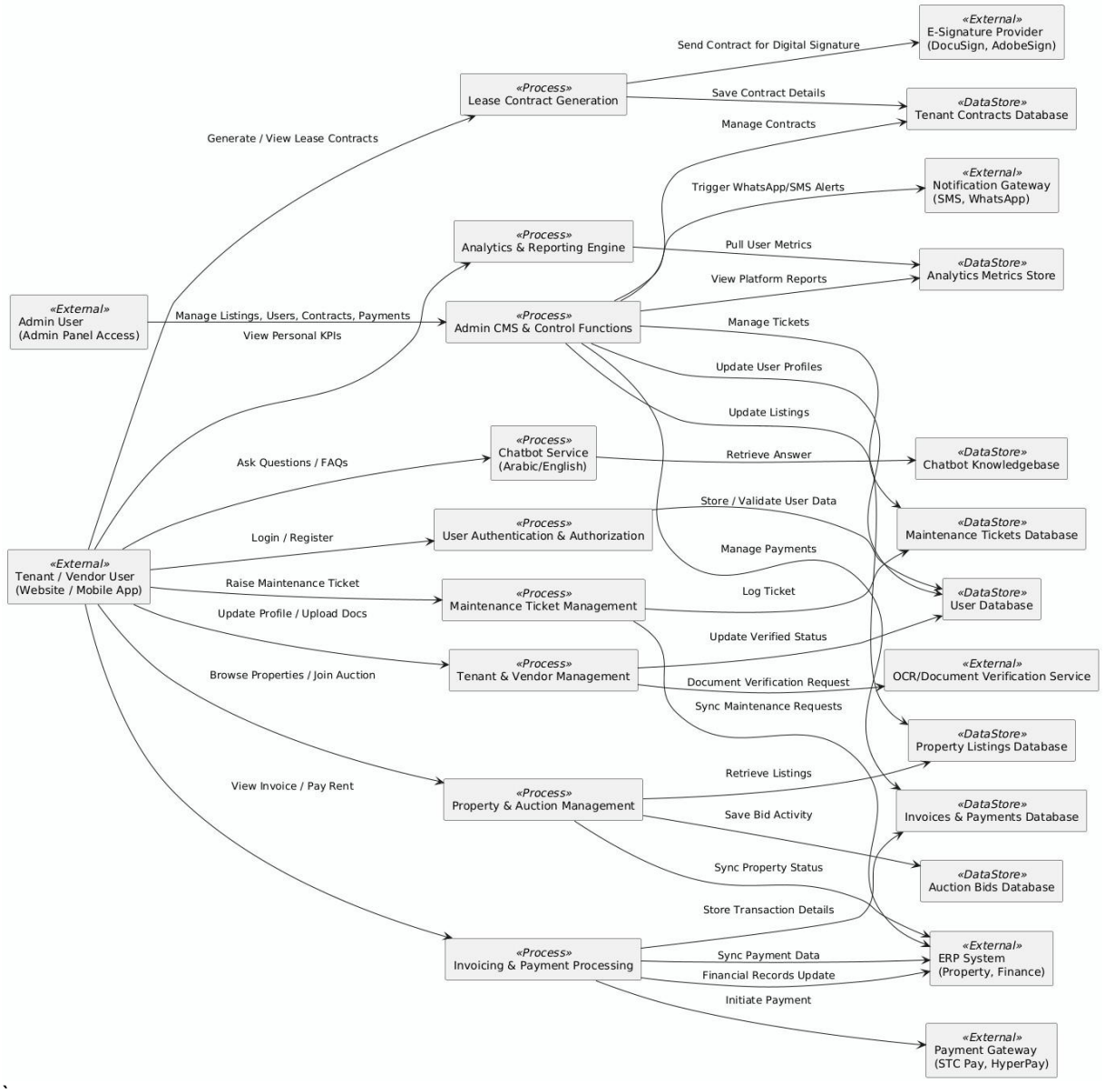
			must be owned by Al Fauzan Real Estate.	
NFR-17	System Updates	Zero Downtime Deployments	Deployment strategies must minimise or eliminate downtime (Blue-Green Deployment preferred).	Medium
NFR-18	System Monitoring	Real-Time Monitoring	Integrate real-time health and performance monitoring dashboards and alert systems.	High
NFR-19	User Support	Helpdesk & Ticketing SLA	Integrated ticketing system with defined SLA tracking for complaints and maintenance.	High
NFR-20	Localization	Date, Time, and Currency Format	System must support Saudi Arabian standards (Hijri/Gregorian dates, SAR currency).	High

DFD:



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Integration Details:

ID	Module/Feature	Integration Point	Description	Type	Technologies /Tools
INT-01	Online Payments (Portal, Mobile)	Payment Gateway Integration	Integration with payment gateways for token payments, rent, and service fees.	External API	Hyperpay, STC Pay, Stripe, or similar
INT-02	Chatbot (Web, Mobile, Portal)	AI/NLP Chatbot Integration	Integration with AI Chatbot for bilingual (Arabic/English) tenant/vendor support.	External API	Dialogflow, Rasa, or Microsoft Bot Framework
INT-03	Live Auctions (Website)	Real-Time Bidding Engine	WebSocket/Firebase integration for real-time property bidding.	Realtime Messaging	Firebase Realtime DB, WebSocket
INT-04	CRM System (Lead Management)	CRM Integration	Push lead inquiries and contact forms data into internal CRM systems.	External API	Salesforce, Zoho CRM, HubSpot
INT-05	E-Signature (Contracts)	E-Signature Integration	Integration for digitally signing lease, auction, and maintenance contracts.	External API	DocuSign, Adobe Sign, HelloSign
INT-06	ERP System (Core Operations)	ERP Custom Integration	Integration between automation platform and internal custom ERP modules for finance, leasing, property management.	Internal APIs	REST APIs, JSON, XML, Swagger/OpenAPI
INT-07	SMS Notifications	SMS Gateway Integration	SMS alerts for invoices, maintenance updates, auctions.	External API	Twilio, Unifonic, Nexmo
INT-08	WhatsApp Notifications	WhatsApp Business API Integration	WhatsApp alerts for payments, auctions, maintenance updates.	External API	WhatsApp Cloud API, Twilio WhatsApp

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INT-09	ID Verification (Onboarding)	OCR & AI Document Verification	External verification for Iqama, National ID, CR documents through AI-based OCR.	External API	AnyVision, Onfido, HyperVerge
INT-10	Document Management	Document Storage Integration	Integration with secure document storage and versioning system.	Internal/External API	AWS S3, Azure Blob Storage
INT-11	Analytics Dashboard	Data Visualisation Tools Integration	Dashboards pulling analytics data from internal database and API layers.	Internal Reporting	Power BI, Tableau, or custom chart libraries (D3.js, Chart.js)
INT-12	Maintenance SLA Tracking	SLA Engine Integration	Workflow tool integration for maintenance and support SLA monitoring.	Internal Module	Custom SLA engines, Business Process Automation (BPA) Tools
INT-13	Authentication & SSO	Single Sign- On (SSO) Integration	Unified authentication using OAuth 2.0 and JWT standards.	Internal Security	OAuth 2.0, OpenID Connect
INT-14	Backup and Disaster Recovery	Cloud Backup Integration	Integration with cloud backup providers for automated daily backups.	External Service	AWS Backup, Azure Recovery Services
INT-15	Hosting & Cloud Infrastructure	Cloud Infrastructure Provisioning	Integration with cloud service providers for scalable and secure hosting.	Infrastructure as a Service (IaaS)	AWS, Microsoft Azure, GCP

High-Level API List:

API Category	API Name	Endpoint (Example)	Method	Description	Input Parameters	Output/Response
Authentication	User Login	/api/auth/login	POST	Authenticate user with email/phone and password.	email/phone, password	Access Token, Refresh Token, User Profile
Authentication	User Logout	/api/auth/logout	POST	Invalidate access token.	access_token	Logout confirmation

Authentication	Token Refresh	/api/auth/refresh	POST	Refresh expired access token.	refresh_token	New Access Token, Refresh Token
Property Management	List Properties	/api/properties	GET	Fetch available properties with filters (city, type, price range).	filters (optional)	List of properties with metadata
Property Management	Property Details	/api/properties/{id}	GET	Fetch detailed information of a single property.	property_id	Property detail object
Auction Management	Start Auction	/api/auctions/start	POST	Start a live auction for a specific property.	property_id, reserve_price, start_time	Auction created confirmation
Auction Management	Place Bid	/api/auctions/{auction_id}/bid	POST	Place a bid in an ongoing auction.	auction_id, bid_amount	Bid confirmation, current highest bid
Auction Management	Auction Status	/api/auctions/{auction_id}/status	GET	Get real-time status of an auction.	auction_id	Auction status (open/closed), highest bid
Tenant Portal	Tenant Dashboard Data	/api/tenant/dashboard	GET	Fetch current rental status, payment history, contract info.	tenant_id (session based)	Dashboard metrics and records
Tenant Portal	Submit Maintenance Ticket	/api/maintenance/tickets	POST	Submit a new maintenance request with optional photo upload.	tenant_id, issue_description, photos (optional)	Ticket creation confirmation
Maintenance	Update Ticket Status	/api/maintenance/tickets/{ticket_id}	PATCH	Update the status or notes of a maintenance request.	ticket_id, status, notes	Updated ticket details

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Payment Management	Create Invoice	/api/payments/invoice/create	POST	Generate an invoice for rent or services.	tenant_id, amount, service_details	Invoice ID and payment link
Payment Management	Payment Callback/ Webhook	/api/payments/callback	POST	Handle payment confirmation from gateway.	payment_id, status, amount	Payment success/failure status
User Management	Update User Profile	/api/users/profile/update	PUT	Update profile info like address, phone, preferences.	user_id, profile_data	Updated user profile confirmation
Chatbot Service	FAQ Query	/api/chatbot/faq	POST	AI-powered response to FAQs or service queries.	question, context (optional)	Bot response text
Notification Service	Send SMS/WhatsApp Notification	/api/notifications/send	POST	Send system notifications to users.	user_id, message, type (SMS/WhatsApp)	Delivery status
Vendor Management	Vendor Onboarding	/api/vendors/onboard	POST	New vendor registration and document submission.	vendor_data, documents	Vendor ID and onboarding status
Analytics & Reporting	Fetch KPI Dashboard Data	/api/analytics/kpis	GET	Pull analytics data (occupancy , complaints, revenue).	admin_id (auth)	KPI metrics and charts
ERP Integration	Sync Property Lease Data	/api/erp/leases/sync	POST	Sync lease contracts and payment info to ERP system.	lease_data, tenant_data, payment_data	ERP sync confirmation
Identity Verification	OCR Document Scan	/api/verification/ocr	POST	Extract details from ID/Iqama/ CR documents using OCR.	document_image	Extracted data fields

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Testing Matrix:

ID	Module	Test Type	Description	Scope	Priority
TST-01	Mobile App	Functional Testing	Validate all tenant/vendor workflows: onboarding, payments, maintenance requests.	App screens, APIs, chatbot, push notifications	High
TST-02	Mobile App	Usability Testing	Evaluate mobile app user experience (ease of navigation, layout clarity, Arabic/English support).	All screens and user flows	High
TST-03	Mobile App	Security Testing	Test authentication, authorization, payment security, encryption of sensitive data.	Login, payment, token management, data storage	High
TST-04	Mobile App	Compatibility Testing	Test on multiple devices (iOS, Android), various OS versions, and screen sizes.	10+ devices (phones, tablets)	High
TST-05	Portal (Tenant)	Functional Testing	Verify dashboard, maintenance ticket creation, rent payments, contract management workflows.	Portal dashboards, forms, APIs	High
TST-06	Portal (Internal)	Workflow Testing	Ensure role-based workflows (leasing, maintenance, finance) are assigned and escalated properly.	Leasing, finance, maintenance workflows	High
TST-07	Portal (Internal)	Security Testing	Validate role-based access (RBAC) and secure document storage, internal audit trails.	User roles, document verification modules	High
TST-08	Website	Functional Testing	Test property search, auctions, user registration, inquiry submissions, chatbot interaction.	Public pages, live auction pages, CMS content	High
TST-09	Website	Performance Testing	Test page load speeds, response times during peak traffic (5k-10k concurrent users).	Home, property listings, auctions	High
TST-10	Website	SEO Validation Testing	Validate SEO meta tags, structured data (schema), sitemap correctness.	All public pages	Medium

TST-11	Admin Panel	Functional Testing	Verify content management (properties, news, banners), user management, invoicing, analytics.	Admin screens, form inputs, bulk operations	High
TST-12	Admin Panel	Workflow Testing	Test property listing publishing, auction creation, contract template management workflows.	CMS, auction management, contract management	High
TST-13	Admin Panel	Security Testing	Validate sensitive admin functionalities (user rights, audit logs, data exports).	Admin user actions, access logs	High
TST-14	All Modules	Localization Testing	Validate Arabic and English content rendering, date formats, currency display.	All user-facing modules	High
TST-15	All Modules	Accessibility Testing	Test compliance with accessibility standards (screen readers, keyboard navigation).	Public website, portals, mobile apps	Medium
TST-16	All Modules	API Integration Testing	Test end-to-end API requests/responses across modules (auth, property, payment, auction).	API endpoints, payloads, error handling	High
TST-17	All Modules	Backup & Recovery Testing	Test automated backups and restoration processes.	Database backups, file restores	High
TST-18	All Modules	Penetration Testing	Conduct vulnerability assessments to identify and fix potential security gaps.	Web, Mobile, Portal, APIs	High
TST-19	All Modules	Regressio n Testing	Ensure new changes do not break existing features (automated and manual).	Full system testing after deployments	High
TST-20	All Modules	User Acceptance Testing (UAT)	Final round of testing by business users to approve functionality before launch.	Full platform review	High

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Risk Assessment and Mitigation Plan:

Risk ID	Category	Risk Description	Impact	Likelihood	Mitigation Strategy	Owner
RSK-01	Technical	Integration with payment gateways may fail.	High	Medium	Conduct early API testing, involve gateway support teams, and keep backup gateways ready.	Technical Lead
RSK-02	Technical	Real-time auction platform performance issues at high load.	High	Medium	Stress test auction modules early, optimize WebSocket/Firebase performance, scale infrastructure.	DevOps Lead
RSK-03	Regulatory Compliance	Non-compliance with PDPL or VAT regulations.	High	Low	Engage compliance specialists, perform periodic audits, document all processes.	Compliance Officer
RSK-04	Project Management	Delays in development causing milestone slippage.	High	Medium	Implement Agile sprints, weekly status reviews, contingency buffer in timeline.	Project Manager
RSK-05	Security	Data breach or cyberattack.	High	Low	Penetration testing, SSL/TLS encryption, OAuth/JWT security layers, regular security audits.	Security Lead

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RSK-06	Resource	Key developer or technical staff attrition.	Medium	Medium	Cross-train team members, maintain detailed technical documentation, have backup staffing plans.	HR Manager
RSK-07	Usability	Bilingual (Arabic/English) content inconsistencies.	Medium	High	Thorough localization testing, involve native Arabic speakers in QA.	QA Lead
RSK-08	Vendor Management	Poor vendor compliance for third-party services (e.g., document verification providers).	Medium	Medium	Perform vendor due diligence, create strict onboarding checks, and set SLAs.	Vendor Manager
RSK-09	System Operations	Backup/Recovery failure leading to data loss.	High	Low	Automated daily backups, regular restore tests, cloud disaster recovery plans.	IT Infrastructure Manager
RSK-10	Client Communication	Misalignment between client expectations and delivered product.	High	Medium	Regular demos, transparent documentation, and formal scope change control process.	Account Manager
RSK-11	Mobile Device Coverage	App compatibility issues across multiple Android/iOS devices.	Medium	Medium	Maintain device testing matrix, test across at least 90% market	Mobile App QA Lead

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					coverage devices.	
RSK-12	Budget	Project cost overrun.	High	Low	Track costs bi-weekly, define strict change request approval process.	Finance Manager
RSK-13	Infrastructure	Cloud hosting cost spikes due to auto-scaling.	Medium	Low	Set resource quotas, monitor cloud costs proactively, configure scaling thresholds carefully.	DevOps Lead
RSK-14	End User Adoption	Low adoption of new systems (Tenant Portal, Mobile App, Admin Portal).	Medium	Medium	Run onboarding webinars, user guides, interactive tutorials, and in-app support.	Training & Adoption Manager

Security Matrix:

Security Area	Threat	Mitigation Strategy	Implementation Details	Tools/Technologies
Authentication	Unauthorised access to system	Implement OAuth 2.0 / JWT token-based authentication.	Secure login with token expiry, refresh token mechanism, multi-factor authentication (MFA) for Admins.	OAuth 2.0, JWT, Auth0, Okta
Authorisation (RBAC)	Privilege escalation	Role-Based Access Control with strict permission mapping.	Fine-grained access control; verify role before granting resource access.	Custom RBAC modules, Keycloak
Data in Transit	Man-in-the-middle (MITM) attacks	Enforce HTTPS (SSL/TLS 1.2+) for all communications.	SSL certificates, automatic renewal, strict HTTPS redirects.	Let's Encrypt, AWS ACM, Cloudflare SSL

Data at Rest	Data theft or leaks from database	Encrypt sensitive data at rest using database encryption features.	Field-level encryption (tenant data, payment details, documents).	PostgreSQL TDE, Azure SQL Encryption, AWS KMS
Identity Verification	Forged documents, fake users	AI-based OCR verification and facial recognition.	Validate uploaded documents and match with user selfies (optional).	AnyVision, Onfido, HyperVerge
Session Management	Session hijacking	Short session timeouts, refresh tokens, secure cookie attributes.	Implement HttpOnly, Secure, SameSite cookie flags.	Express.js Security Middleware, OWASP best practices
APIs	Unauthorised API access or abuse	API Gateway with rate limiting, authentication, and IP whitelisting.	Secure API access keys, monitor API usage logs.	AWS API Gateway, Kong Gateway, WAF
Mobile App Security	Code injection, data leakage	Code obfuscation, secure API calls, encrypted storage.	Obfuscate Android/iOS app code, encrypt API keys, use secure local storage (e.g., Keychain/Keystore).	ProGuard, R8, Secure Store (iOS Keychain, Android Keystore)
User Data Privacy	PDPL/GDPR violation	Consent management, right to be forgotten, data anonymisation.	Users manage data preferences, request account deletion.	Custom Consent Management Systems
Payment Security	Payment fraud	PCI-DSS compliance, tokenised payment processing, secure callbacks.	End-to-end encryption for payment flows, validate callback integrity.	Stripe, HyperPay, STC Pay, PCI-DSS
Backup & Recovery	Data loss during system crash	Daily automated backups, disaster recovery plan.	Scheduled backup scripts, real-time replication, regular restore tests.	AWS Backup, Azure Site Recovery
Cloud Infrastructure	Unauthorised cloud access	IAM roles, least privilege principle, encryption of environment variables.	Enable CloudTrail/Cloud Watch logs, restrict SSH access via VPN.	AWS IAM, Azure RBAC, VPC Security Groups
Admin Panel Access	Brute-force attacks on Admin Login	CAPTCHA implementation, account lockout	Brute-force protection	Google reCAPTCHA,

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		after X failed attempts.	middleware, 2FA for critical users.	Custom Middleware
Monitoring & Alerts	Delayed threat detection	Real-time monitoring and alerts for anomalies and intrusion attempts.	Monitor server logs, authentication attempts, failed API calls.	AWS CloudWatch, Sentry, NewRelic, Datadog
Audit Trails	Lack of traceability in system	Maintain audit logs for all critical actions (user updates, payments, contract changes).	Tamper-proof logs with timestamps, user IDs, IP addresses.	ELK Stack (Elasticsearch, Logstash, Kibana), AWS CloudTrail

Important Note:
Many of the controls also help you comply with PDPL (Saudi Personal Data Protection Law) and GDPR requirements, automatically ensuring regulatory alignment!

Assumptions and Dependencies Assumptions:

ID	Assumption	Details
A-01	Timely Access to Client Information	Client will provide timely access to business workflows, leasing templates, legal documents, and branding materials.
A-02	Fixed Scope for Initial Phases	Scope of Phase 1, Phase 2, and Phase 3 deliverables will remain stable unless formally changed via the change control process.
A-03	Third-Party API Availability	Payment gateways, OCR verification, SMS/WhatsApp providers, and cloud services will have stable, reliable APIs available for integration.
A-04	Regulatory Requirements Stay Consistent	Saudi PDPL, Ejar, VAT, and GDPR regulations will not significantly change during the project timeline.
A-05	Client Testing Participation	Client stakeholders will participate in User Acceptance Testing (UAT) and provide feedback promptly.
A-06	Language Assets Provided by Client	Arabic translations for website/app content will be validated or provided by client team.
A-07	Hosting Environment Provisioning	Hosting infrastructure (AWS/Azure) will be made available early to allow environment setup and testing.
A-08	ERP Customisation Requirements Finalised Before Development	ERP modules will have finalised workflows and reporting requirements before build begins.
A-09	Mobile Device Coverage Agreement	Devices/OS versions for mobile app testing will be approved and listed by client to cover key target users.

Dependencies:

ID	Dependency	Details
D-01	Payment Gateway Providers	HyperPay, STC Pay, Stripe (or selected provider) APIs must be functional and documentation must be accessible.

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D-02	OCR and ID Verification Services	Third-party OCR and ID verification services must be available, stable, and support Saudi national documents.
D-03	Hosting Infrastructure (AWS, Azure, or Client-Provided)	Reliable cloud hosting infrastructure must be provisioned with sufficient scaling and backup capabilities.
D-04	ERP System Readiness	Integration points and data sync rules for ERP (property leasing, financials) must be confirmed early.
D-05	SMS and WhatsApp Notification Gateways	SMS/WhatsApp provider setup must be completed to enable real-time notifications.
D-06	E-Signature Provider Selection	Selected e-signature provider (DocuSign, AdobeSign, etc.) APIs must be integrated and tested.
D-07	Bilingual Content Review	All Arabic-English translations must be validated by client reviewers for marketing and legal consistency.
D-08	Client IT Support for On-Premise Systems (if any hybrid model needed)	Client IT team must assist if hybrid infrastructure (cloud + internal systems) is required.
D-09	Regulatory Compliance Changes (External Dependency)	If PDPL, Ejar, VAT, or GDPR rules change, project scope and system adjustments will be reassessed.

SLA – Issue Response & Resolution (Post-Deployment Support):

Severity	Definition	Examples (Project-Specific)	Impact Level	Initial Response Time	Resolution Target	Communication Expectation	Escalation Level
P1 – Critical	Platform is completely or partially unavailable. Business-critical operations halted. No workaround exists.	- Admin panel inaccessible - Payment gateway integration failure - Live auction engine crashes - Contract signing system down - Login failure for all users	System-wide impact, all users affected.	≤ 1 hour	≤ 4 business hours	Acknowledgment via email + call; hourly updates until resolved	Escalated to Project Manager + Tech Lead immediately

P2 – High	Core module is degraded, but partial functionality remains. A workaround is possible but disrupts normal usage.	- Lease contract generation fails for some tenants - Property listings not loading for some regions - Maintenance ticket assignment not functioning - Mobile app login works, but dashboard doesn't load	Major functional area impaired, many users affected.	≤ 4 hours	≤ 1 business day	Email acknowledgment within 4 hours; updates every 4–6 hours	Assigned to QA + Dev Lead with PM oversight
P3 – Medium	Non-critical functionality is impaired. User has a workaround. System still operational.	- Notifications delayed (SMS/WhatsApp) - Document upload fails on specific browsers - Arabic labels not rendering correctly - Data sync delay between ERP and portal	Limited user group or minor modules affected.	≤ 1 business day	≤ 3 business days	Email acknowledgment within 1 business day; updates as needed	Assigned to relevant module owner
P4 – Low	Cosmetic or UI/UX issues. No functional impact. Tracked for future release.	- Typos or incorrect content - Button alignment off - FAQ link misdirects - Inactive menu hover effects	No business impact.	≤ 2 business days	≤ 7 business days or next patch release	Email acknowledgment within 2 days; grouped into scheduled update	Added to backlog, reviewed weekly

SLA Governance Notes:

Category	Details
Coverage	SLA applies to Website, Portal, Mobile Apps, Admin Panel, and API integrations post go-live.
Support Window	Sunday – Thursday, 9 AM – 6 PM (KSA time). Critical P1 issues monitored 24/7.
Channels	Support Portal, Email, Dedicated WhatsApp group (for P1 escalations), Weekly reporting
Hypercare Period	First 4 weeks post go-live: Priority given to all incidents, with P1–P2 monitored continuously during business hours.

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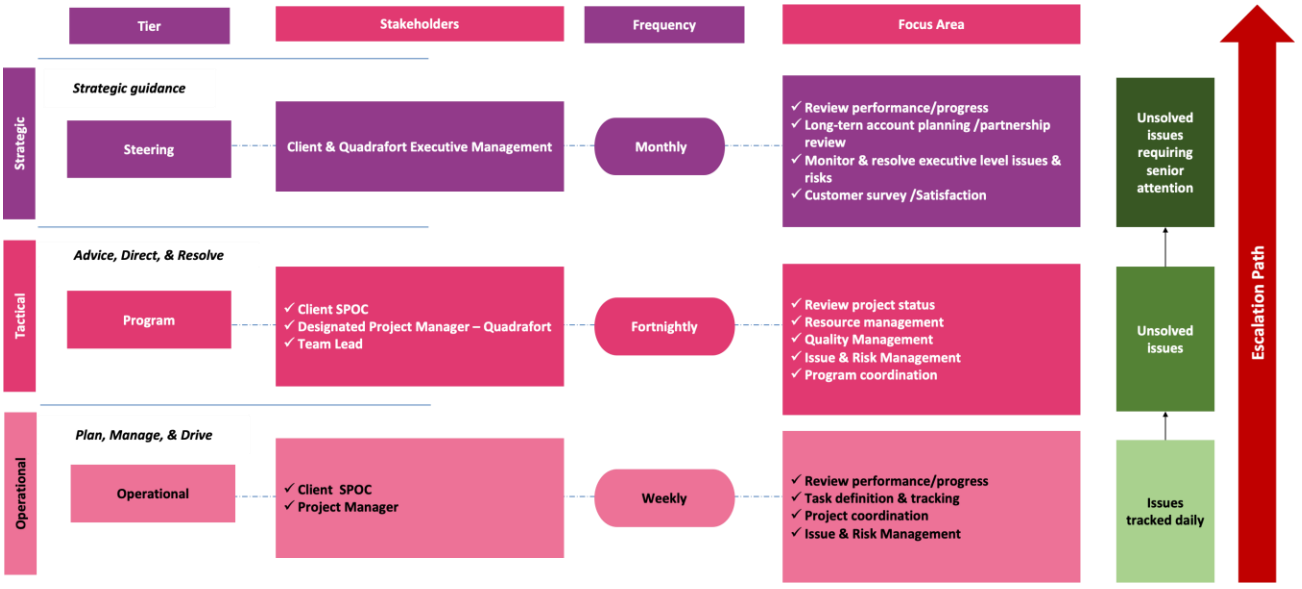
Monitoring Tools	Uptime Monitoring (Pingdom/NewRelic), Error Logging (Sentry), Alerting System (PagerDuty/CloudWatch)
Issue Tracking	All incidents tracked in a shared Issue Tracker (ClickUp/Jira/Excel), visible to both teams.
Change Request Trigger	If resolution requires out-of-scope dev work (e.g., new integration), formal Change Request process is triggered.
SLA Breach Policy	Documented and reviewed in weekly project governance meetings. Recurrent SLA breaches flagged for escalation.

Governance Framework



Team Structure:

Role	Responsibilities	Team Size
Project Manager	- Oversee overall project delivery. - Manage timelines, scope, budget. - Communicate with client and stakeholders. - Manage risk, changes, and reporting.	1
Technical Architect	- Define system architecture. - Select technology stack and tools. - Review technical designs. - Ensure scalability, security, and compliance.	1
Solution Consultant / Business Analyst	- Gather and document business and functional requirements. - Translate client needs into system specifications (FRD, BRD). - Validate deliverables against requirements.	1
UI/UX Designer	- Design mobile-first, bilingual (Arabic/English) interfaces. - Create user flows, wireframes, mockups, and interactive prototypes. - Ensure accessibility and responsiveness.	1
Frontend Developer (Web/Portal)	- Build responsive web interfaces (Website, Tenant Portal, Vendor Portal, Admin Panel). - Implement SEO optimisation, CMS integration.	2
	- Integrate APIs with UI components.	
Mobile App Developer	- Develop native or hybrid mobile apps for iOS and Android. - Implement in-app payments, chatbot, notifications. - Optimise performance across devices.	2
Backend Developer	- Develop APIs, ERP integrations, user management, auctions, invoicing, notifications, backups. - Implement security standards (OAuth2.0, SSL/TLS, JWT).	2
DevOps Enginee r	- Setup and manage cloud infrastructure (AWS/Azure). - Implement CI/CD pipelines. - Configure auto-scaling, monitoring, and disaster recovery systems.	1
QA Engineer (Manual + Automation)	- Write and execute test cases (Functional, API, Security, Usability, Regression). - Set up automated testing for mobile and web. - Conduct cross-device/browser testing.	2
Security Specialist	- Perform penetration testing. - Configure monitoring, audit logs. - Validate data encryption, secure authentication, compliance adherence.	1 (Part-Time)
Content Manager (CMS Admin)	- Manage property listings, news updates, FAQ content. - Coordinate Arabic/English content publishing. - Ensure website/portal content freshness.	1 (Optional, Client Side)
Training & Adoption Manager	- Prepare user guides, run onboarding webinars. - Conduct training sessions for Admin, Leasing, Support Teams. - Drive platform adoption with stakeholders.	1 (Optional, Short-Term)

Timeline:

Phase 1: Website Transformation, Tenant Portal & Live Auction Module:

Task	Responsible Role(s)	Start Week	End Week
Project Kick-off & Requirement Gathering	Project Manager, Business Analyst, Solution Consultant	Week 1	Week 1
Architecture & Technical Design	Technical Architect, DevOps Engineer	Week 2	Week 2
UI/UX Design for Website & Portals	UI/UX Designer	Week 2	Week 2
Website Development (Frontend, Auction Module)	Frontend Developers, Backend Developers	Week 2	Week 2
Tenant Portal Development (Dashboard, Maintenance, Contracts)	Frontend Developers, Backend Developers	Week 3	Week 3
Admin Panel CMS Setup	Backend Developers, Frontend Developers	Week 3	Week 3
Integration Setup (Payment Gateway, Chatbot, OCR Verification)	Backend Developers, Integration Specialist	Week 3	Week 3
Internal QA Testing (Website, Tenant Portal, Auction Module)	QA Engineers	Week 3	Week 3
UAT (Website, Portal, Auctions)	QA Engineers, Client UAT Team	Week 4	Week 4
Go-Live: Website + Tenant Portal + Live Auction	Full Team	Week 4	Week 4

Phase 2: Core Automation (Invoicing, Contracts, Chatbot, Vendor Tools):

Task	Responsible Role(s)	Start Week	End Week
Core Automation Module Development (Invoicing & Payments)	Backend Developers	Week 5	Week 5
Dynamic Contract Generation & E-Signature Integration	Backend Developers, Integration Specialist	Week 5	Week 5
AI-Powered Chatbot Deployment	Backend Developers, Integration Specialist	Week 5	Week 5
Vendor Management Tools Development	Backend Developers, Frontend Developers	Week 6	Week 6

Mobile App Development (Tenant + Vendor Apps)	Mobile App Developers, Backend Developers	Week 7	Week 8
Internal Maintenance & Staff Workflow Automation	Backend Developers, QA Engineers	Week 8	Week 8
Internal QA Testing (Automation Modules, Mobile Apps)	QA Engineers	Week 8	Week 8
UAT for Automation Modules and Mobile Apps	QA Engineers, Client UAT Team	Week 8	Week 8
Go-Live: Core Automation Modules + Mobile Apps	Full Team	Week 8	Week 8

Phase 3: Analytics, Communication Automation & Admin Control:

Task	Responsible Role(s)	Start Week	End Week
Analytics Dashboard Development (Occupancy, Payments, KPIs)	Backend Developers, Data Analyst	Week 9	Week 9
Communication Automation (WhatsApp/SMS/ Email Alerts Setup)	Backend Developers, Integration Specialist	Week 9	Week 9
Mobile App Enhancements (Notifications, Virtual Meeting Scheduler)	Mobile App Developers	Week 10	Week 11
Admin Control Panel Enhancements (Access Logs, Audit Trails, Content Management)	Backend Developers, QA Engineers	Week 11	Week 11
System-Wide Penetration Testing & Load Testing	Security Specialist, QA Engineers	Week 11	Week 11
Final UAT (Full Platform with Analytics, Admin Control)	QA Engineers, Client UAT Team	Week 11	Week 11

Final Go-Live (Analytics + Communication Automation + Admin Control Enhancements)	Full Team	Week 12	Week 12

Annual Support Contract & Roadmap Consultation Scope of the Annual Support Contract:

The vendor offers an optional Annual Support Contract to ensure long-term system reliability, performance enhancement, feature roadmap planning, and advisory collaboration.

Included Services:

Category	Description
Technical Support	Ongoing bug fixing, performance tuning, environment monitoring, uptime management
Preventive Maintenance	Security patches, code refactoring, deprecated API audits, SSL renewal
Feature Optimisation	Feedback-driven improvements to existing modules, layout/UI fixes
Incident Management	Handling production issues, regression testing after changes, issue trend analysis
Third-Party Integration Maintenance	Monitoring and updating integrations with payment gateways, OCR services, ERP sync, etc.
Mobile App Store Management	Update publishing, compliance with app store policies, version tracking
Knowledge Base Management	Updating user manuals, admin guides, FAQs (Arabic/English) as features evolve

Roadmap Consultation Services (Quarterly Advisory)

The vendor will provide quarterly strategic advisory sessions to help shape the client's digital roadmap based on usage analytics, industry benchmarks, and user behavior data.

Roadmap Consultation Includes:

Deliverable	Description
Platform Usage Report	Dashboard and API usage analysis, high-traffic features, error trend review
Adoption Review	Portal/mobile adoption insights, vendor participation rates, auction utilisation stats
Technology Recommendations	Review of emerging tools (e.g., AI Chatbot enhancements, new OCR models, personalisation tools)
Future Feature Planning	Collaborative backlog grooming, feature prioritisation based on impact/value
Budget Forecasting	Resource estimate for new roadmap items (separate proposal if needed)
Security & Compliance Advisory	Review of new PDPL/GDPR requirements, security scan results, risk alerts

Contract Terms:

Item	Details
Duration	3 Months
Invoicing Model	30+30+40
Service Cap (Optional)	Includes up to XX man-days of support/development per year (e.g., 100–150 MDs)
Overage	Any additional days beyond cap billed at agreed daily rate
Support Channels	Email, Ticketing System, Optional Dedicated Slack/WhatsApp
Team Composition	Dedicated account manager, L2-L3 technical support, product consultant (on-call)

Benefits to Client:

- Minimize downtime, avoid regression
- Focus on roadmap without technical debt
- Proactive compliance with evolving regulations
- Continuous alignment with business strategy
- Predictable cost model for support and growth

`Change Management Process:

Stage	Description	Deliverables / Tools	Responsibility
1. Change Request Submission	Any stakeholder (client/vendor) submits a change request detailing the proposed modification.	Change Request Form (CRF) Change Request Log/Register	Request Initiator
2. Request Logging & ID Assignment	The request is recorded in a central log and assigned a unique ID for tracking and reference.	Change Request Tracker	Project Manager
3. Impact Assessment	The vendor assesses the effect on scope, timeline, cost, quality, and risks.	Impact Assessment Report	Vendor PM, Tech/QA Leads
4. Impact Review & Recommendation	The vendor provides a recommendation on feasibility and implementation path.	Impact Summary, Recommendation	Project Manager
5. Approval Process	Approval routing depends on impact severity: • Minor: Joint PMs • Major: Client Steering Committee	Approved CR document with signatures	Client + Vendor Decision Makers
6. Communication of Change	Approved changes are communicated to all impacted parties and teams.	Email notifications, Project dashboard update	Project Manager
7. Implementation Planning	The change is reflected in the updated project plan, resource allocation, or deliverable schedule.	Revised Timeline, Updated SoW, Resource Plans	Project Team Leads
8. Monitoring & Closure	Status of the change is monitored until fully implemented; CR is then marked as "Closed".	Change Register Update	Project Manager

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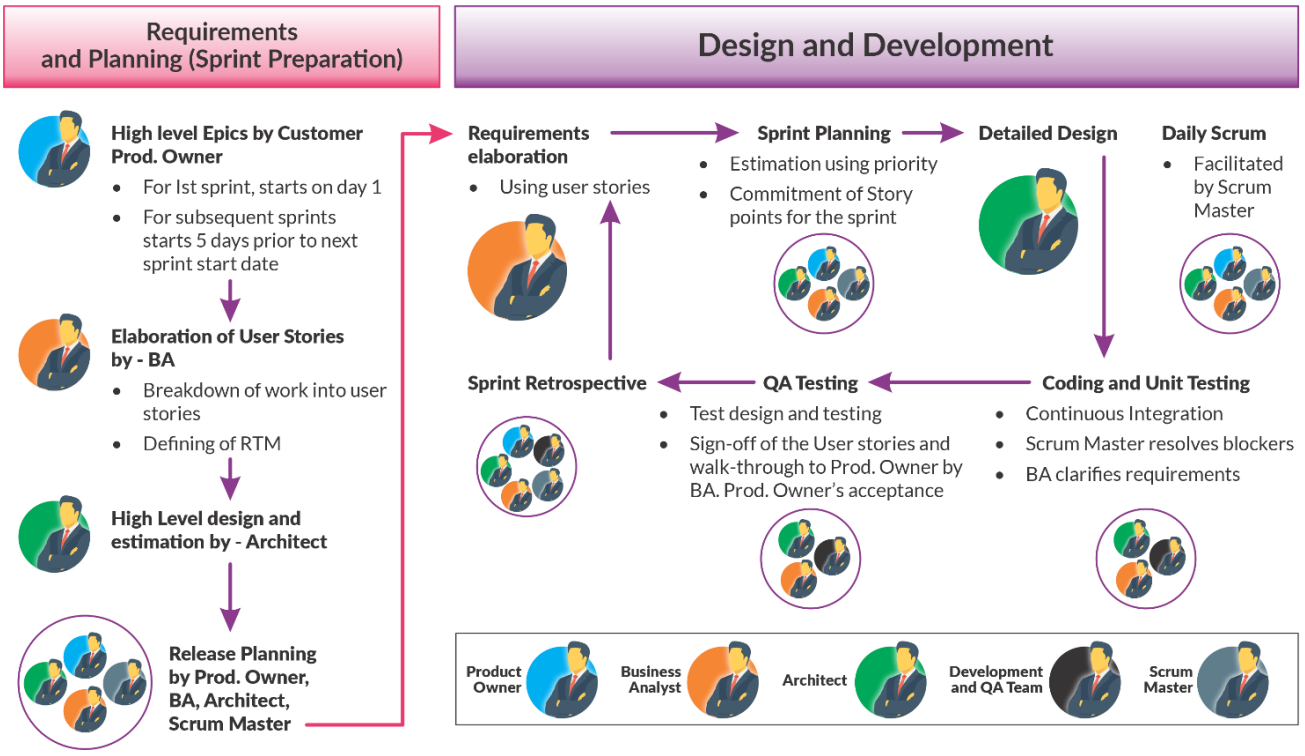
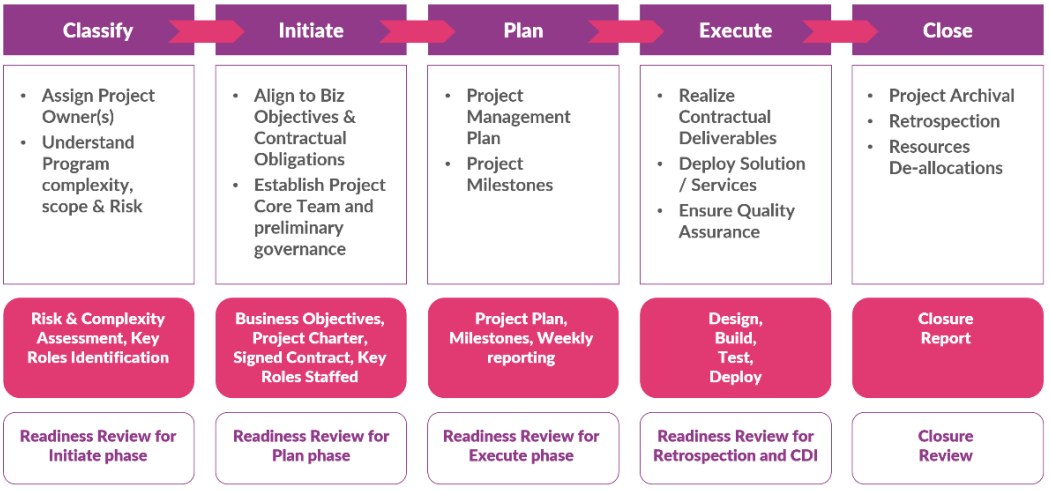
Implementation Process



Delivery Approach



Deliverable readiness reviews occur prior to customer acceptance. Phase gates represent inspection points to verify internal readiness. Process Audits are conducted as defined in the project plan

Key Success Factors

- **Estimation backed with strong historical data and aligning to right resources skills**
- **Scope change management and re-planning proactively to avoid schedule & budget over funds**
- **Onetime delivery in-full to accomplish customer commitments**

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COMMERCIALS & TERMS

Commercials:

	Amount in SAR
Phase 1	36,000.00 SAR
Phase 2	36,000.00 SAR
Phase 3	48,000.00 SAR
Total	**1,20,000.00 SAR**

Payment Milestones-

MileStones	Payment %
Initial Payment Before kick-off	30 %
Website Deployment	30 %
ERP & Mobile App – Go live (Final Phase)	40%

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THANK YOU!!