Software Requirements Specification (SRS)

Mental Health Support Platform (MHSP)

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1. INTRODUCTION

1.1 PURPOSE

This Software Requirements Specification (SRS) documents the functional and non-functional requirements for the Mental Health Support Platform (MHSP). It serves as the foundation for design, development, testing, and validation activities throughout the project lifecycle.

1.2 SCOPE

MHSP is a privacy-first digital platform designed to connect patients with verified therapists in Egypt. The platform enables:

- Anonymous/alias-based patient registration
- Therapist discovery with advanced filtering
- Session booking and payment processing
- Secure text-based therapy sessions (MVP)
- AI-driven well-being check-ins
- SOS escalation capabilities
- Administrative oversight and reporting

1.3 INTENDED AUDIENCE

- Development Team
- Quality Assurance Team
- Product Owner and Stakeholders
- Project Management
- System Architects
- Legal and Compliance Teams

1.4 DOCUMENT CONVENTIONS

- **Priority Levels:** High (Must-Have), Medium (Should-Have), Low (Could-Have)
- **Requirement IDs:** FR-nnn (Functional), NFR-nnn (Non-Functional), BR-nn (Business)
- **Standards Referenced:**
- ISO/IEC/IEEE 29148 (Requirements Engineering)
- ISO/IEC 25010 (System Quality Model)
- WCAG 2.1 AA (Accessibility)
- Egypt PDPL Law 151/2020 (Data Protection)

2. OVERALL DESCRIPTION

2.1 PRODUCT PERSPECTIVE

MHSP addresses critical mental health access challenges in Egypt, where approximately 100 million citizens are served by fewer than 1,000 psychiatrists. The platform provides a scalable, privacy-focused solution that reduces stigma, wait times, and costs while ensuring continuity of care.

2.2 PRODUCT FUNCTIONS

- **Patient Functions:** Anonymous registration, therapist discovery, session booking, secure messaging, payment management, review submission
- **Therapist Functions:** Profile management, availability scheduling, appointment handling, session delivery, resource sharing, payment tracking
- **Admin Functions:** User management, therapist verification, system configuration, analytics, promotion management
- **System Functions:** Payment processing, notification delivery, session management, compliance enforcement

2.3 USER CLASSES AND CHARACTERISTICS

User Class	Technical Expertise	Frequency of Use	Key Needs
Patient	Low to Medium	Variable (crisis to ongoing)	Privacy, ease of use, affordability
Therapist	Medium	Daily	Efficient scheduling, secure sessions, reliable payments
Admin	High	Daily	Oversight tools, reporting, user management

2.4 OPERATING ENVIRONMENT

- **Client:** Web browsers (Chrome, Firefox, Safari, Edge), iOS/Android mobile apps
- **Server:** Cloud-hosted infrastructure (AWS/Azure/GCP)
- **Database:** PostgreSQL or MySQL
- **Third-Party Services:** Payment gateway (local support for Meeza, cards, mobile wallets), notification service, real-time communication SDK

2.5 DESIGN AND IMPLEMENTATION CONSTRAINTS

- Compliance with Egypt PDPL Law 151/2020
- 2-month MVP timeline
- Budget constraints requiring third-party SDK usage
- Mobile-first design approach
- Arabic and English bilingual support required
- No localStorage/sessionStorage in artifacts

2.6 ASSUMPTIONS AND DEPENDENCIES

Assumptions:

- Users have reliable mobile internet access
- Therapists are pre-verified by NGO/university partners
- PDPL-compliant consent mechanisms are accepted by users

Dependencies:

- Payment gateway availability and sandbox access
- NGO therapist roster for verification
- Real-time communication SDK integration
- Notification service provider

3. SYSTEM FEATURES AND REQUIREMENTS

3.1 PATIENT FEATURES

Section	ID	Title	Priority	Description	Acceptance Criteria	Related
3.1.1 Registration & Authentication	FR-001	Anonymous/Alias Registration	High	Allow patients to register using an alias without requiring PII.	Given a new user on the registration pageWhen they enter alias name, age, country, and passwordThen account is created without requiring emailAnd user can immediately log in using alias and password	BR-01, UC-REG-01, NFR-04
3.1.2 Profile Management	FR-006	View and Edit Profile	Medium	Update profile info incl. photo, phone, medical history.	Given a logged-in patientWhen they edit profile fields (photo, phone, medical history)Then system validates and saves changesAnd displays confirmation message	UC-Profile-Edit
3.1.3 Therapist Discovery	FR-008	Browse Therapist Directory	High	Searchable directory of verified therapists.	Given a patient on the therapist directory pageWhen page loadsThen system displays therapists with name, photo, specialty, rating	BR-01, UC-SRCH-01, NFR-01
3.1.4 Appointment Booking	FR-012	Book Therapy Session	High	Book available time slots with therapists.	Given a patient selecting a therapist and time slotWhen booking is confirmed and payment completedThen create appointment recordAnd send confirmationsAnd update therapist availability	BR-02, UC-BOOK-01, NFR-03
3.1.5 Therapy Sessions	FR-018	Conduct Secure Text Session	High	Real-time encrypted text chat; persist on reconnection.	Given an active sessionWhen messages are exchangedThen messages appear ≤2sAnd E2E encryptedAnd history persists on reconnection	BR-01, UC-SESS-TXT-01, NFR-01, NFR-05
3.1.6 AI Check-ins & SOS	FR-021	AI Well-being Check-ins	Medium	Periodic, non-diagnostic check-ins; store responses.	Given a patient enrolledWhen scheduled check-in time arrivesThen present brief questionnaireAnd store responses for review	BR-01
3.1.7 Reviews & Feedback	FR-023	Submit Rating	Medium	Rate therapists 1–5 stars post-session.	Given a completed sessionWhen rating is submittedThen save ratingAnd update therapist average	UC-026.1
3.1.8 Self-Help Resources	FR-026	Browse Resources	Low	Show PDFs/videos/articles with attribution.	Given a patient on resources pageWhen page loadsThen display resources with title, category, attribution	UC-022.1
3.1.10 Payment Mgmt	FR-031	View Payment History	Medium	Show transactions; sortable/filterable.	Given viewing payment historyWhen page loadsThen list transactions with date, amount, therapist, status	UC-024.1
3.1.11 Support	FR-034	Contact Support	Medium	Access via live chat, email form, FAQ; ticket created.	Given a patient needing helpWhen accessing supportThen offer contact methodsAnd create support ticket	UC-025.1

3.2 THERAPIST FEATURES

Section	ID	Title	Priority	Description	Acceptance Criteria	Related
3.2.1 Registration & Verification	FR-036	Therapist Registration	High	Register with professional credentials; pending account.	Given a therapist on registrationWhen submitting name, email, password, specialization, license docsThen create pending accountAnd notify admin for verification	FEAT9.1
3.2.2 Profile Mgmt	FR-038	Profile Setup	High	Add photo, bio, languages, experience, specialties, pricing.	Given verified therapistWhen editing profileThen update fieldsAnd changes immediately visible to patients	FEAT9.3
3.2.3 Availability Mgmt	FR-039	Set Availability	High	Define recurring schedules.	Given setting availabilityWhen selecting days/time slotsThen save scheduleAnd expose slots for booking	FEAT10.1
3.2.4 Appointment Mgmt	FR-041	View Appointment Requests	High	Display incoming requests; actions.	Given pending requestsWhen accessing appointmentsThen show requests with patient info/timeWith accept/reject/reschedule options	FEAT11.1
3.2.5 Session Delivery	FR-044	Conduct Text Sessions	High	Real-time encrypted chat; auto logging.	Given active sessionWhen messages exchangedThen real-time encryptedAnd session auto-logged	FEAT13.1, NFR-05
3.2.6 Resource Mgmt	FR-048	Upload Self-Help Materials	Low	Upload PDFs/videos/docs to resource library.	Given uploading a fileWhen within size/type limitsThen store and link to profileAnd make available to patients	FEAT14.1
3.2.7 Financial Mgmt	FR-049	View Earnings	High	Transactions, pending balance, totals; filters.	Given viewing paymentsWhen accessing earnings dashboardThen show history, pending, totalsWith date filters	FEAT15.1
3.2.8 Notifications	FR-051	Receive Booking Notifications	High	Real-time notices via in-app/email/SMS.	Given new bookingWhen submittedThen notify therapist in real time	FEAT16.1

3.3 ADMIN FEATURES

Section	ID	Title	Priority	Description	Acceptance Criteria	Related
3.3.1 User Mgmt	FR-054	Approve Therapist Registrations	High	Admin interface to review/approve applications.	Given pending registrationsWhen reviewing credentialsThen approve/reject with reasonAnd notify therapist	FEAT1.1
3.3.2 Appointment Oversight	FR-058	View All Appointments	Medium	Full platform schedule with search/filters.	Given appointments panelWhen viewing scheduleThen display all appointments with search/filters	FEAT3.1
3.3.3 System Config	FR-060	Configure Promotions	Low	Create/manage discount campaigns.	Given creating promotionWhen setting %/duration/eligibilityThen apply to qualifying bookingsAnd display to eligible users	FEAT4.1
3.3.4 Analytics & Reporting	FR-062	View Analytics Dashboard	Medium	KPIs: completion, satisfaction, volumes, revenue, performance, wait time.	Given accessing reportsWhen viewing dashboardThen display KPIs listed	BR-04, FEAT6.1
3.3.5 Financial Mgmt	FR-064	View Transaction History	High	All payments/refunds/withdrawals with audit trail.	Given billing panelWhen viewing transactionsThen display detailed breakdown with audit trail	FEAT7.1
3.3.6 Bulk Ops	FR-066	Bulk User Import	Low	CSV/Excel onboarding; summary report.	Given uploading user dataWhen valid formatThen create accounts in batchAnd show success/failure summary	FEAT8.1

3.4 SYSTEM-LEVEL FEATURES

Section	ID	Title	Priority	Description	Acceptance Criteria	Related
3.4.1 Data Mgmt	FR-067	Data Retention Policy	High	Enforce configurable retention per PDPL; log actions.	Given retention schedule definedWhen period expiresThen auto archive/delete dataAnd log actions	BR-03, NFR-08
3.4.2 Search & Discovery	FR-071	Advanced Search	Medium	Multi-criteria search with autocomplete.	Given entering a queryWhen typingThen suggest completions and search across name/specialty/location	UC-019.2
3.4.3 Audit & Compliance	FR-073	Audit Logging	High	Comprehensive tamper-evident logs for sensitive ops.	Given sensitive operationWhen it occursThen log timestamp, user, action, outcome	BR-03, NFR-06, NFR-08

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4. NON-FUNCTIONAL REQUIREMENTS (NFR)

Category	ID	Title	Priority	Description	Key Targets / Requirements	Verification Method	Related
4.1 Performance	NFR-01	Response Time	High	Acceptable latency for key flows.	Dashboard ≤2s p95; Search/filters ≤1.5s p95; Messages ≤2s p95; Payment ack ≤3s p95	Performance testing with load simulation	FR-008, FR-018, ISO/IEC 25010
4.2 Reliability	NFR-04	Availability	High	High availability with minimal downtime.	Backend ≥99.5%/mo; Payments ≥99.9%; Maintenance <4h/mo; Max unplanned ≤30m/incident	Uptime monitoring; incidents	BR-01, BR-02
4.3 Usability	NFR-07	Ease of Use	High	Intuitive and accessible UX.	80% first-time booking success; Flow ≤3m; Context help; Progress indicators; Clear errors	Usability testing; surveys	BR-01, FR-012
4.4 Security	NFR-11	Authentication	High	Secure auth controls.	bcrypt/Argon2 (cost≥12); Lockout after 5 fails/15m; 128-bit+ tokens; 30m idle timeout; MFA for therapists/admins	Security audit; pentest	FR-003, FR-004, BR-03
4.5 Maintainability	NFR-17	Code Quality	Med	Clean, testable codebase.	Unit coverage ≥80%; Linting; Cyclomatic ≤10/function; API docs; Peer review	Static analysis; code reviews	All FRs
4.6 Portability	NFR-21	Cross-Platform Compatibility	High	Consistent behavior across devices.	Web: Chrome90+/FF88+/Safari14+/Edge90+; iOS13+/Android8+; Responsive; Touch optimized	Cross-browser/device tests	FR-008, FR-018
4.7 Compliance	NFR-23	Egypt PDPL Compliance	High	Full PDPL compliance.	Explicit consent + audit; DPA with 3rd parties; Breach ≤72h; DPO; Accessible policies; Rights handling	Legal/privacy audit	BR-03, FR-067, FR-069, FR-070, NFR-15
4.8 Business Continuity	NFR-26	Disaster Recovery	High	Robust DR capabilities.	RPO ≤1h; RTO ≤4h; Daily off-site backups; DR procedures; Annual drill	Backup/restore tests; DR drill	NFR-06
4.9 Integration	NFR-28	Payment Gateway Integration	High	Integrate Egyptian providers.	Visa/Mastercard; Meeza; Wallets (Vodafone Cash, Fawry); Webhooks; Sandbox; Reconciliation	Integration tests	FR-013, FR-033
4.10 Operational	NFR-31	Support & Maintenance Windows	Med	Efficient ops with minimal downtime.	Zero-downtime non-DB deploys; Maintenance 2–6 AM EET; Hotfix ≤2h; Rollback ≤15m	Deployment tests; runbooks	NFR-04

5. BUSINESS RULES

BR-01: REGISTRATION & PRIVACY

- Users can register using an alias without sharing personal data (PII).
- User must confirm age (18+) and give digital consent before access.
- All user data follows PDPL rules for privacy and retention.
- One active alias account per email or device.

BR-02: THERAPIST DIRECTORY & BOOKING

- Users can search therapists by specialty, language, gender, and price.
- Only verified therapists appear in the directory.
- A booking is confirmed only after successful payment.
- Users can reschedule or cancel a session at least **6 hours** before start.
- Automatic reminders are sent **30 minutes** before the session.

BR-03: PAYMENTS & REFUNDS

- Payments must be processed through approved local gateways (cards, Meeza, wallets).
- If a payment fails, system retries **up to 2 times** before cancelling booking.
- Refunds are allowed only for cancelled or failed sessions and must be approved by Admin.
- Every transaction and refund must have an **audit record** for compliance.

BR-04: SESSION & COMMUNICATION

- Sessions are text-based only in MVP (no audio/video).
- Messages must be delivered within **2 seconds** under normal conditions.
- If connection is lost for less than **5 minutes**, auto-reconnect is triggered.
- Chat history is **not stored** after session ends unless user gives consent.
- In crisis cases, user is redirected to SOS or hotline partner service.

BR-05: RATINGS & FEEDBACK

- User can submit rating and comment after each session.
- One rating per session; it cannot be edited after submission.
- Therapist average rating updates automatically.

BR-06: ADMIN & MODERATION

- Admin can approve, suspend, or remove therapist accounts.
- All admin actions must be logged in an **audit trail**.
- Reported or flagged content must be reviewed within **48 hours**.
- Refund and payout adjustments need **dual approval** (Admin + Finance).

BR-07: DATA & SECURITY

- All data must be encrypted (TLS 1.2+ in transit, AES-256 at rest).
- Only authorized roles can access sensitive data (RBAC enforced).
- Daily encrypted backups with recovery point ≤ 24 hours.
- User can request data export or deletion anytime via verified request.

BR-08: ANALYTICS & MONITORING

- Analytics data includes only anonymized and aggregated metrics.
- Dashboard refreshes automatically every **60 minutes**.
- Key KPIs tracked: booking completion, wait time, payment success, incident count.

5. DATA REQUIREMENTS

5.1 DATA MODEL

The system data model is defined in the Class Diagram (see attached UML Diagrams document). Key entities include:

Core Entities:

- **Patient:** patient_id, alias, email_or_phone, preferred_language, consent_version, created_at
- **Therapist:** therapist_id, display_name, email_or_phone, specialties, languages, verification_status, verification_docs_uri, hourly_rate, rating_avg, created_at
- **Admin:** admin_id, system_init, display_name, role, created_at, updated_at
- **Appointment:** appointment_id, patient_id, therapist_id, slot_id, status, price, currency, created_at
- **Session:** session_id, appointment_id, start_time_utc, end_time_utc, retention_days
- **Payment:** payment_id, appointment_id, amount, currency, status, provider_ref, created_at
- **Review:** review_id, appointment_id, rating, comment, created_at
- **Notification:** notification_id, recipient_patient_id, recipient_therapist_id, type, channel, status, created_at
- **Resource:** resource_id, title, url, locale (managed_by Admin)
- **AvailabilitySlot:** slot_id, therapist_id, start_time_utc, end_time_utc, recurrence_rule
- **Message:** message_id, session_id, sender_type, content_text, sent_at
- **Refund:** refund_id, payment_id, amount, status, created_at

5.2 DATA DICTIONARY

A comprehensive data dictionary with field definitions, data types, constraints, and PDPL classifications shall be maintained separately. Key attributes:

- **Field Name:** Unique identifier
- **Data Type:** String, Integer, Float, DateTime, Boolean, etc.
- **Length/Precision:** Maximum length or numeric precision
- **Required:** Yes/No
- **Default Value:** If applicable
- **Validation Rules:** Format, range, enum values
- **PDPL Classification:** Personal Data (PD), Sensitive Personal Data (SPD), Non-Personal Data (NPD)
- **Retention Period:** Per data retention policy
- **Encryption Required:** Yes/No

5.3 DATA RETENTION AND ARCHIVAL

Policy:

- Session messages: 90 days after session end, then archived/deleted per patient consent
- Appointment records: 2 years after completion
- Payment records: 7 years (tax compliance)
- Audit logs: 1 year (security), 7 years (financial)
- User accounts (deleted): 30-day soft delete, then permanent removal

Implementation: Automated archival jobs, manual purge verification

Related: FR-067, NFR-23

6. EXTERNAL INTERFACE REQUIREMENTS

6.1 USER INTERFACES

6.1.1 GENERAL UI REQUIREMENTS

- Responsive design (mobile-first, breakpoints: 320px, 768px, 1024px, 1440px)
- Material Design or equivalent modern design system
- Consistent navigation (header, footer, sidebar)
- Loading indicators for async operations
- Toast notifications for feedback messages
- Modal dialogs for confirmations
- Form validation with inline error messages

6.1.2 KEY SCREENS

Patient Screens:

1. Registration/Login
2. Dashboard (upcoming sessions, quick actions)
3. Therapist Directory (with filters/search)
4. Therapist Profile
5. Booking Flow (select time, payment, confirmation)
6. My Appointments (upcoming, past)
7. Active Session (chat interface)
8. Payment History
9. Profile Settings
10. Support/Help

Therapist Screens:

11. Registration/Onboarding
12. Dashboard (appointments, earnings summary)
13. Appointment Management
14. Availability Calendar
15. Active Session (chat interface)
16. Patient History (with consent)
17. Resources Management
18. Earnings and Withdrawals
19. Profile Settings
20. Notifications

Admin Screens:

21. Dashboard (KPIs, alerts)
22. User Management (patients, therapists)
23. Therapist Verification Queue
24. Appointment Oversight
25. Analytics and Reports
26. Financial Transactions
27. System Configuration
28. Promotion Management
29. Support Tickets

6.2 HARDWARE INTERFACES

Client Devices:

- Minimum: Smartphone (iOS 13+, Android 8+), 2GB RAM, 100MB storage
- Recommended: Modern smartphone/tablet/desktop with camera/microphone (for future A/V sessions)

Server Infrastructure:

- Cloud-based (AWS/Azure/GCP)
- Load balancers
- CDN for static assets
- Managed database services
- Object storage for files (S3-compatible)

6.3 SOFTWARE INTERFACES

6.3.1 PAYMENT GATEWAY API

- **Provider:** Egyptian payment gateway (e.g., Paymob, Fawry, Accept)
- **Protocol:** REST API over HTTPS
- **Authentication:** API keys, OAuth 2.0
- **Operations:**
- Tokenize payment method
- Process payment
- Query transaction status
- Process refund
- Webhook callbacks for status updates

6.3.2 NOTIFICATION SERVICES

- **Email:** SMTP or API (SendGrid, AWS SES)
- **SMS:** Local provider API (Vodafone, Orange Egypt)
- **Push Notifications:** Firebase Cloud Messaging (FCM), Apple Push Notification Service (APNs)

6.3.3 REAL-TIME COMMUNICATION SDK

- **Provider:** Twilio, Agora, or similar WebRTC-based service
- **Features:** Text chat, audio/video calling, connection quality monitoring
- **Protocol:** WebRTC, WebSocket

6.3.4 DATABASE

- **Type:** Relational (PostgreSQL 13+ or MySQL 8+)
- **Connection:** Connection pooling, SSL required
- **Backup:** Automated daily snapshots

6.3.5 FILE STORAGE

- **Type:** Object storage (AWS S3, Azure Blob, GCS)
- **Use Cases:** Profile photos, license documents, resource files
- **Security:** Pre-signed URLs, access control policies

6.4 COMMUNICATION INTERFACES

6.4.1 NETWORK PROTOCOLS

- **HTTP/HTTPS:** All web traffic (TLS 1.3)
- **WebSocket:** Real-time session messaging
- **REST API:** Backend services communication
- **JSON:** Data interchange format

6.4.2 API SPECIFICATIONS

- **API Style:** RESTful
- **Authentication:** JWT (JSON Web Tokens)
- **Versioning:** URI versioning (/api/v1/)
- **Rate Limiting:** Per user/IP address
- **Documentation:** OpenAPI 3.0 specification

7. QUALITY ASSURANCE REQUIREMENTS

7.1 TESTING REQUIREMENTS

7.1.1 UNIT TESTING

- Coverage target: ≥ 80%
- Framework: Jest (JavaScript), pytest (Python), JUnit (Java)
- Execution: Automated on every commit

7.1.2 INTEGRATION TESTING

- API endpoint testing
- Database integration testing
- Third-party service integration testing (mocked and live)
- Execution: Automated in CI/CD pipeline

7.1.3 SYSTEM TESTING

- End-to-end user flows
- Cross-browser testing (BrowserStack or similar)
- Mobile app testing (iOS, Android)
- Execution: Automated (Selenium, Cypress) + Manual

7.1.4 PERFORMANCE TESTING

- Load testing (JMeter, Gatling)
- Stress testing (identify breaking points)
- Spike testing (sudden traffic increases)
- Endurance testing (sustained load)

7.1.5 SECURITY TESTING

- Vulnerability scanning (OWASP ZAP, Burp Suite)
- Penetration testing (annual)
- Code security analysis (SonarQube, Snyk)

7.1.6 USABILITY TESTING

- User acceptance testing (UAT) with real patients and therapists
- A/B testing for key flows
- Accessibility testing (screen readers, keyboard navigation)

7.1.7 REGRESSION TESTING

- Automated regression suite
- Execution before each release
- Smoke tests for critical paths

7.2 ACCEPTANCE CRITERIA

Definition of Done (DoD):

- All acceptance criteria met
- Code reviewed and approved
- Unit tests pass with ≥ 80% coverage
- Integration tests pass
- Security scan shows no critical/high vulnerabilities
- Documentation updated
- Deployed to staging and verified
- RTM updated with test case linkage

Release Criteria:

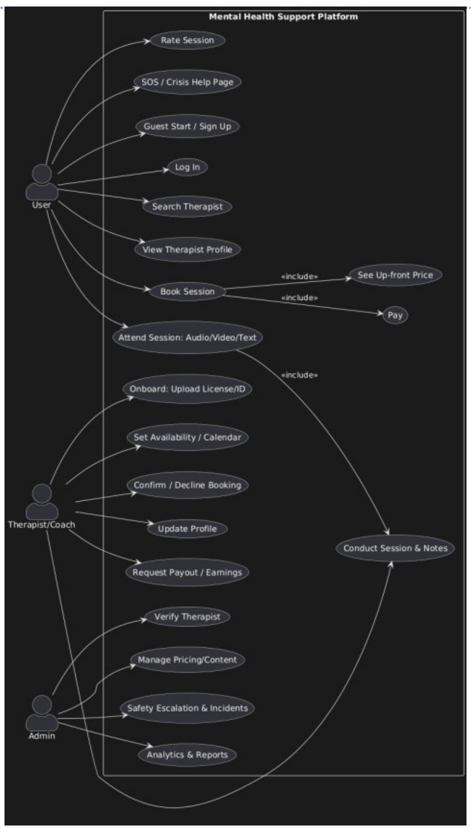
- All Must-Have (High priority) requirements implemented
- All critical and high bugs resolved
- Performance benchmarks met (NFR-01, NFR-02)
- Security audit completed with no unresolved critical findings
- Usability testing results meet targets (NFR-10)
- Backup and disaster recovery tested
- Production deployment runbook validated

8. SYSTEM MODELS

8.1 USE CASE DIAGRAMS

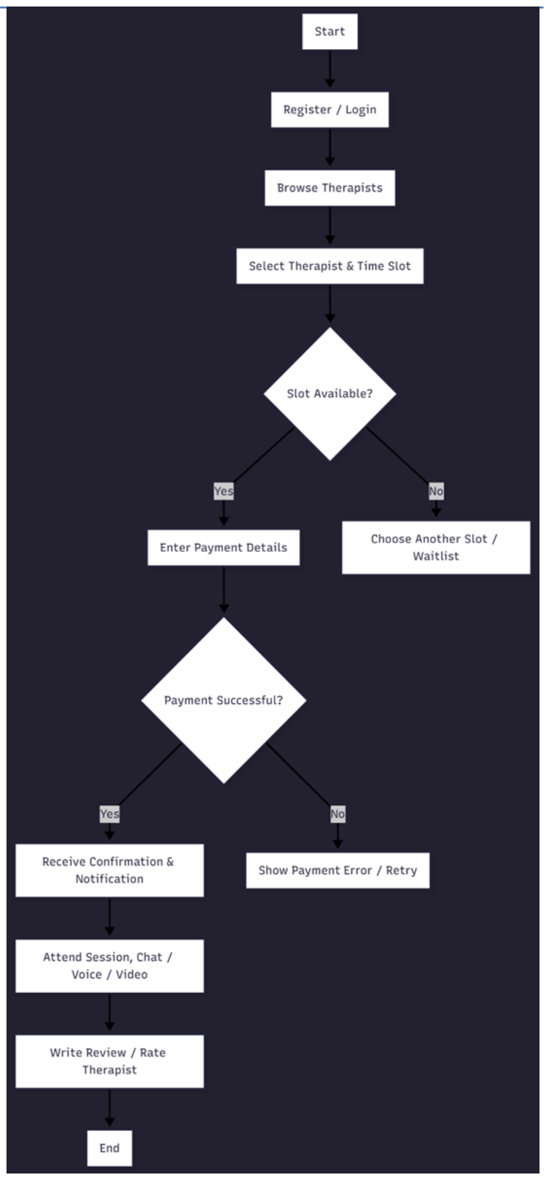
- Patient use cases (17 features)
- Therapist use cases (9 features)
- Admin use cases (8 features)

USE-CASE INVENTORY (V1)



- UC-REG-01: Patient registers/logs in (alias supported).
- UC-TVER-01: Therapist onboarding & verification (docs upload, admin approval).
- UC-SRCH-01: Browse/search therapist directory with filters.
- UC-BOOK-01: Book session (request/confirm/reschedule/cancel).
- UC-SESS-TXT-01: Conduct text session, handle disconnect/reconnect.
- UC-SESS-AV-02: Conduct audio/video session (future iteration).
- UC-PAY-01: Pay (subscription or per-session), view payment history.
- UC-NOTIF-01: Receive reminders, updates, and confirmations.
- UC-REV-01: Leave review/rating, therapist responds (if enabled).
- UC-RES-01: Therapist uploads resources (guides/exercises).
- UC-ADM-01: Admin manages users (activate/suspend), promotions, notifications, reports.

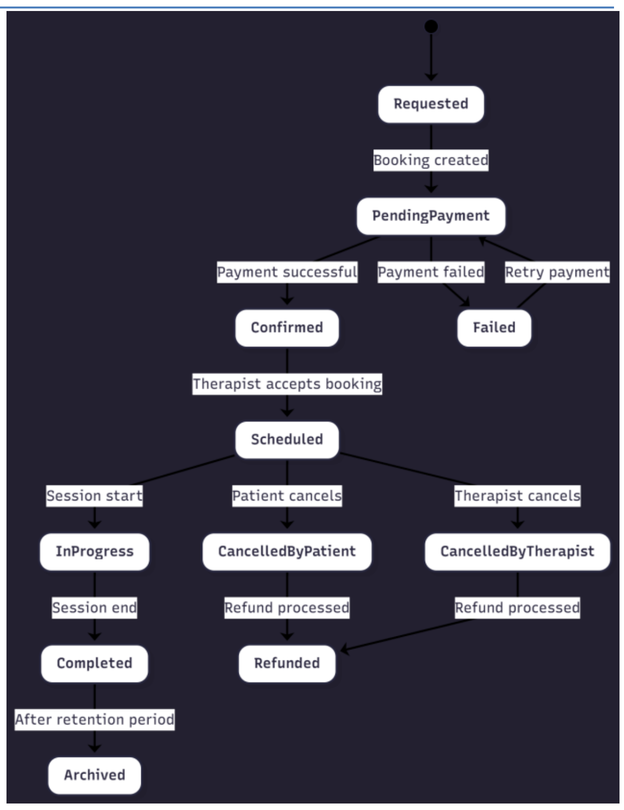
8.2 ACTIVITY DIAGRAMS



Patient Journey Flow:
Scope: Patient: registration → booking → payment → attending session → review.

- Start → Register/Login → Browse Therapists → Select Therapist & Time Slot
- Slot Available? → Yes: Enter Payment Details → Payment Successful? → Yes: Receive Confirmation
- → Attend Session (Chat/Voice/Video) → Write Review/Rate Therapist → End

8.3 STATE DIAGRAMS

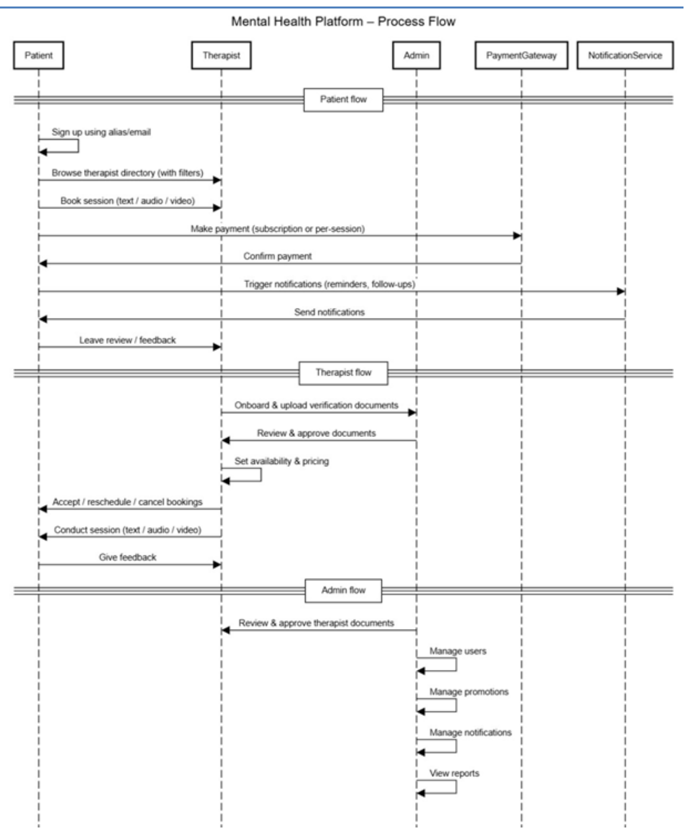


Appointment Lifecycle:
Scope: Focuses solely on state changes for one booking

- Requested → (Booking created) → PendingPayment
- PendingPayment → (Payment successful) → Confirmed → (Therapist accepts) → Scheduled
- Scheduled → (Session start) → InProgress → (Session end) → Completed → (After retention period) → Archived
- PendingPayment → (Payment failed) → Failed
- Scheduled → (Patient cancels) → CancelledByPatient → (Refund processed) → Refunded
- Scheduled → (Therapist cancels) → CancelledByTherapist → (Refund processed) → Refunded

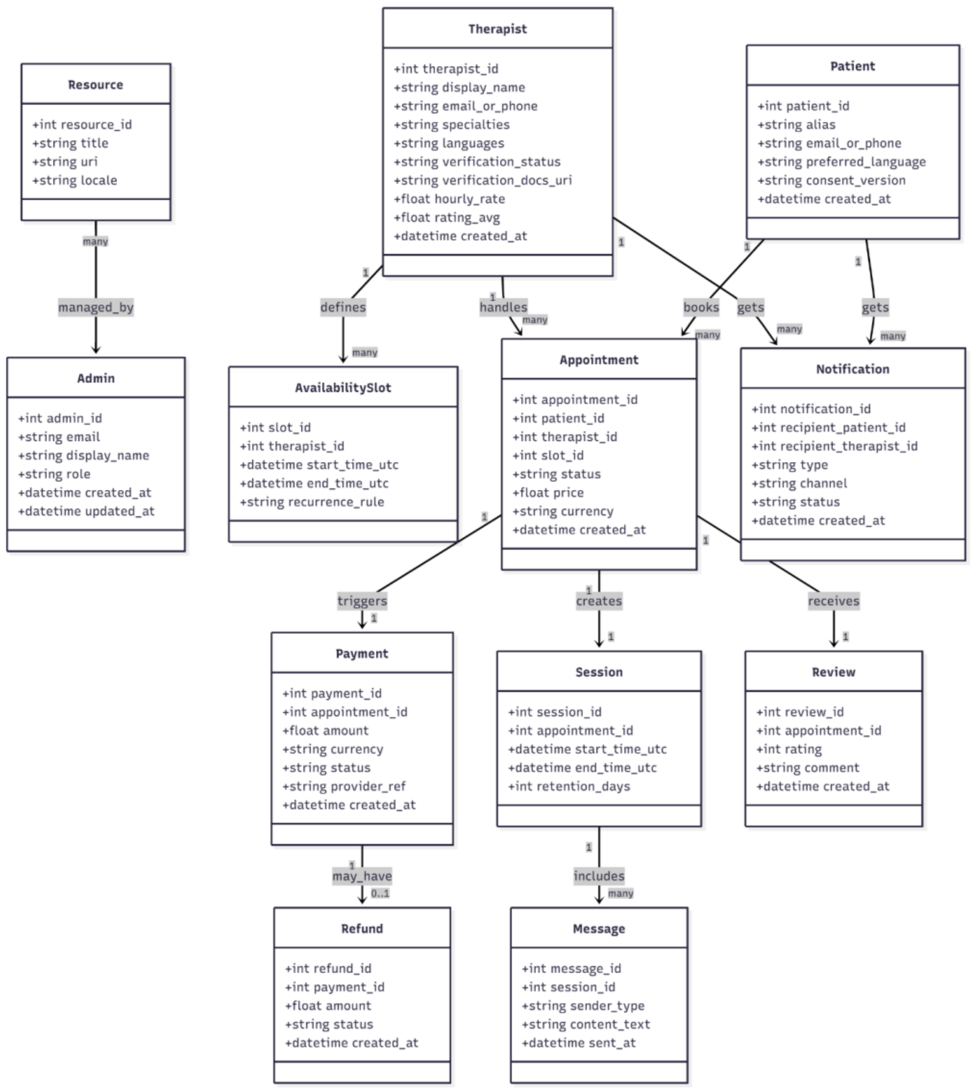
8.4 SEQUENCE DIAGRAMS

- Patient flow: Sign up → Browse therapists → Book session → Make payment → Attend session → Leave review
- Therapist flow: Onboard → Set availability → Accept booking → Conduct session → Give feedback
- Admin flow: Review therapist documents → Manage users → Manage promotions/notifications → View reports
- Cross-cutting: Payment confirmations, notification triggers



8.5 CLASS DIAGRAMS

- Core entities and attributes
- Relationships (one-to-many, many-to-many)
- Cardinalities
- Key associations (Patient books Appointment, Therapist defines AvailabilitySlot, etc.)



8.6 DETAILED USE CASES

ADMIN FEATURES

FEAT1.1 – APPROVE THERAPIST REGISTRATION

User Story

As an admin, I want to review and approve therapist registrations so that only verified professionals can access the platform.

Field	Details
Actor	Admin
Preconditions	- Therapist has submitted registration details. - Admin has access to the admin dashboard.
Postconditions	- Therapist account is marked as "Approved". - Therapist receives confirmation notification.
Main Flow	1. Admin logs into the system. 2. Navigates to “Pending Therapists.” 3. Reviews documents and credentials. 4. Clicks “Approve.” 5. System updates therapist status to “Active.”
Alternative Flow	A1 – Missing Documents: Admin rejects with reason “Incomplete credentials.” A2 – System Error: Displays “Unable to update status, try again.”

FEAT1.2 – SUSPEND THERAPIST ACCOUNT

User Story

As an admin, I want to suspend therapist accounts that violate policies so that platform integrity is maintained.

Field	Details
Actor	Admin
Preconditions	- Therapist account exists and is active. - Admin has authorization to manage accounts.
Postconditions	- Therapist account status changes to “Suspended.” - Notification sent to therapist.
Main Flow	1. Admin searches for therapist. 2. Selects account. 3. Clicks “Suspend.” 4. Provides reason for suspension. 5. System updates account status.
Alternative Flow	A1 – Account Already Suspended: Displays “Account already inactive.”

FEAT1.3 – UPDATE THERAPIST PROFILE

User Story

As an admin, I want to edit therapist profiles to correct or update professional details.

Field	Details
Actor	Admin
Preconditions	- Therapist account exists. - Admin has edit access.
Postconditions	- Updated information saved. - Therapist notified of profile changes.
Main Flow	1. Admin opens therapist profile. 2. Edits details (name, specialization, license). 3. Clicks “Save.” 4. System updates data.
Alternative Flow	A1 – Invalid Data Format: System shows “Invalid entry.”

FEAT2.1 – MANAGE PATIENT ACCOUNTS

User Story

As an admin, I want to activate or deactivate patient accounts to maintain a secure and active user base.

Field	Details
Actor	Admin
Preconditions	- Patient is registered in the system.
Postconditions	- Account status updated to Active/Inactive. - Notification sent to patient.
Main Flow	1. Admin navigates to “Patient Management.” 2. Searches for patient. 3. Selects “Deactivate” or “Activate.” 4. System confirms change.
Alternative Flow	A1 – Patient Not Found: Displays “User not found.”

FEAT2.2 – MONITOR PATIENT ACTIVITY

User Story

As an admin, I want to monitor patient activity to detect suspicious or inactive accounts.

Field	Details
Actor	Admin
Preconditions	- Activity logs are stored. - Admin dashboard accessible.
Postconditions	- Admin views recent logins, sessions, and messages.
Main Flow	1. Admin accesses “Activity Logs.” 2. Filters by user or date. 3. Reviews engagement statistics.
Alternative Flow	A1 – No Activity Found: Displays “No recent activity.”

FEAT3.1 – OVERSEE APPOINTMENT SCHEDULING

User Story

As an admin, I want to view and manage all appointments to ensure smooth scheduling between therapists and patients.

Field	Details
Actor	Admin
Preconditions	- Appointments exist in the system.
Postconditions	- Updated schedule saved. - Notifications sent to involved users.
Main Flow	1. Admin opens “Appointments Panel.” 2. Reviews therapist-patient bookings. 3. Edits, cancels, or reschedules sessions. 4. Confirms updates.
Alternative Flow	A1 – Time Conflict: Displays “Selected slot unavailable.”

FEAT4.1 – CONFIGURE PROMOTIONS AND DISCOUNTS

User Story

As an admin, I want to create and manage discount campaigns for patients.

Field	Details
Actor	Admin
Preconditions	- Admin logged in. - Promotion module active.
Postconditions	- Discount applied to eligible users.
Main Flow	1. Admin navigates to “Promotions.” 2. Creates a new offer. 3. Sets discount amount, duration, and criteria. 4. Saves promotion.
Alternative Flow	A1 – Invalid Duration: System rejects invalid dates.

FEAT5.1 – SET NOTIFICATION PREFERENCES

User Story

As an admin, I want to define system-wide notification preferences for alerts and updates.

Field	Details
Actor	Admin
Preconditions	- Notification module active.
Postconditions	- Notification rules updated in the system.
Main Flow	1. Admin opens “Notifications Settings.” 2. Chooses which alerts to enable/disable. 3. Saves configuration.
Alternative Flow	A1 – Save Error: Displays “Could not save preferences.”

FEAT6.1 – VIEW REPORTS AND ANALYTICS

User Story

As an admin, I want to view detailed analytics on therapist performance, patient engagement, and revenue.

Field	Details
Actor	Admin
Preconditions	- Data collected in the system.
Postconditions	- Reports displayed or exported.
Main Flow	1. Admin navigates to “Reports.” 2. Selects report type (therapist, patient, finance). 3. System generates report. 4. Admin views or downloads it.
Alternative Flow	A1 – No Data Found: Displays “Insufficient data.”

FEAT7.1 – MANAGE BILLING AND TRANSACTIONS

User Story

As an admin, I want to view and verify all financial transactions between therapists and patients.

Field	Details
Actor	Admin
Preconditions	- Payment gateway integrated. - Transactions logged.
Postconditions	- Verified and recorded transaction history.
Main Flow	1. Admin opens “Payments.” 2. Filters by date or user. 3. Reviews invoices and payments. 4. Approves or disputes transaction.
Alternative Flow	A1 – Payment Gateway Error: Displays “Unable to fetch transaction.”

FEAT8.1 – IMPORT AND ONBOARD USERS

User Story

As an admin, I want to upload bulk user data to onboard multiple users efficiently.

Field	Details
Actor	Admin
Preconditions	- CSV or Excel file prepared. - System supports bulk import.
Postconditions	- Users successfully created. - Summary report generated.
Main Flow	1. Admin selects “Import Users.” 2. Uploads data file. 3. System validates and imports users. 4. Displays summary of results.
Alternative Flow	A1 – File Format Invalid: Displays “Upload failed. Check format.”

THERAPIST FEATURES

FEAT9.1 – THERAPIST REGISTRATION

User Story	As a therapist, I want to register on the platform by providing my details and license document so that I can access the system as a verified professional.
Actor	Therapist
Preconditions	- Therapist is not registered yet. - The registration page is available. - Internet connection is active.
Postconditions	- A new therapist account is created and stored. - The account status is marked as 'Pending Verification'.
Main Flow	1. Therapist navigates to registration page. 2. Enters full name, email, password, specialization, and uploads credentials. 3. System validates the data. 4. System stores the information. 5. Displays: 'Account created, awaiting verification.'
Alternative Flow	A1 – Email Already Exists: System displays 'This email is already registered.' A2 – Missing Required Fields: System highlights incomplete fields. A3 – Upload Failure: System requests re-upload of document.

FEAT9.2 – IDENTITY VERIFICATION

User Story	As an admin, I want to verify therapist documents so that only qualified professionals can offer sessions.
Actor	Admin
Preconditions	- Therapist submitted registration and documents. - Admin access is granted.
Postconditions	- Therapist account status updated to 'Verified'.
Main Flow	1. Admin logs into dashboard. 2. Reviews submitted documents. 3. Approves or rejects verification. 4. System updates therapist status.
Alternative Flow	A1 – Invalid Documents: Admin rejects and system notifies therapist. A2 – Network Error: System displays 'Verification update failed, please retry.'

FEAT9.3 – PROFILE SETUP

User Story	As a verified therapist, I want to create and edit my professional profile so patients can know my background.
Actor	Therapist
Preconditions	- Therapist account verified. - Profile section is accessible.
Postconditions	- Therapist profile updated and displayed to patients.
Main Flow	1. Therapist navigates to profile page. 2. Adds info: photo, bio, languages, experience, specialties. 3. Clicks 'Save'. 4. System stores profile.
Alternative Flow	A1 – Invalid File Format: System shows 'Upload valid photo format (JPG/PNG)'. A2 – Missing Fields: System requests completion before saving.

FEAT10.1 – SET AVAILABILITY

User Story	As a therapist, I want to set my working hours so patients can book sessions within those times.
Actor	Therapist
Preconditions	- Therapist is logged in. - Profile completed.
Postconditions	- Availability schedule stored in database.
Main Flow	1. Therapist navigates to Availability page. 2. Selects available days and hours. 3. Clicks 'Save Availability'. 4. System confirms saving.
Alternative Flow	A1 – Overlapping Times: System prevents duplication. A2 – Empty Slots: System shows 'Please add at least one slot.'

FEAT10.2 – EDIT AVAILABILITY

User Story	As a therapist, I want to update or remove my available time slots so my schedule stays accurate.
Actor	Therapist
Preconditions	- Therapist has existing schedule.
Postconditions	- Availability data updated in real-time.
Main Flow	1. Therapist edits time slots. 2. Clicks 'Update Availability'. 3. System saves changes instantly.
Alternative Flow	A1 – Conflict Detected: System prompts to confirm overriding. A2 – Server Error: 'Unable to update schedule, try again later.'

FEAT11.1 – MANAGE APPOINTMENT REQUESTS

User Story	As a therapist, I want to accept, reject, or reschedule patient requests so I can manage my calendar.
Actor	Therapist
Preconditions	- Therapist is logged in. - There are pending appointment requests.
Postconditions	- Appointment status updated (accepted/rejected/rescheduled).
Main Flow	1. Therapist opens Appointment Requests. 2. Reviews patient details. 3. Chooses to Accept, Reject, or Reschedule. 4. System updates appointment status.
Alternative Flow	A1 – Time Conflict: System prevents double booking. A2 – Rejected: Notification sent to patient. A3 – System Error: Displays 'Failed to update appointment.'

FEAT12.1 – VIEW PATIENT HISTORY

User Story	As a therapist, I want to access my patient’s previous notes and sessions securely so I can prepare for future sessions.
Actor	Therapist
Preconditions	- Therapist has approved access. - Patient has previous records.
Postconditions	- Session history loaded and displayed securely.
Main Flow	1. Therapist selects patient profile. 2. System retrieves session notes. 3. Therapist reviews data.
Alternative Flow	A1 – Unauthorized Access: System denies request. A2 – Missing Data: Displays 'No records available.'

FEAT13.1 – CONDUCT CHAT SESSION

User Story	As a therapist, I want to chat securely with my patient during scheduled sessions.
Actor	Therapist, Patient
Preconditions	- Session scheduled and active.
Postconditions	- Chat logs encrypted and stored.
Main Flow	1. Both parties open chat. 2. Messages exchanged securely. 3. Session ends and saved.
Alternative Flow	A1 – Network Disruption: System retries connection. A2 – Unauthorized Access: Ends session immediately.

FEAT13.2 – CONDUCT VOICE SESSION

User Story	As a therapist, I want to have voice-based sessions with patients for real-time communication.
Actor	Therapist, Patient
Preconditions	- Scheduled session active. - Both connected via audio API.
Postconditions	- Audio session ended and summary logged.
Main Flow	1. Therapist clicks 'Start Voice Session'. 2. Patient joins call. 3. Audio stream established.
Alternative Flow	A1 – Connection Lost: System auto-reconnects. A2 – Audio Permission Denied: Displays setup guide.

FEAT13.3 – CONDUCT VIDEO SESSION

User Story	As a therapist, I want to conduct a video session securely for better interaction.
Actor	Therapist, Patient
Preconditions	- Scheduled session active. - Webcam and permissions enabled.
Postconditions	- Video session completed, logs saved.
Main Flow	1. Therapist starts video call. 2. Patient joins. 3. Secure stream initiated. 4. Session summary saved.
Alternative Flow	A1 – Poor Connection: System switches to audio. A2 – Camera Error: Prompts troubleshooting guide.

FEAT14.1 – UPLOAD SELF-HELP MATERIALS

User Story	As a therapist, I want to upload educational materials so patients can access them anytime.
Actor	Therapist
Preconditions	- Therapist verified. - File upload section accessible.
Postconditions	- Resource saved and linked to therapist profile.
Main Flow	1. Therapist uploads PDF/Video/Article. 2. Adds title and description. 3. Clicks Upload. 4. System confirms success.
Alternative Flow	A1 – Invalid Format: System rejects unsupported files. A2 – Upload Timeout: Retry option shown.

FEAT15.1 – VIEW PAYMENT HISTORY

User Story	As a therapist, I want to view my past payments so I can track my income.
Actor	Therapist
Preconditions	- Transactions exist in system.
Postconditions	- Payment records displayed in dashboard.
Main Flow	1. Therapist navigates to 'Payments'. 2. System retrieves transaction list. 3. Displays summaries and totals.
Alternative Flow	A1 – No Payments Yet: Displays 'No transactions found.' A2 – Server Error: Retry message displayed.

FEAT15.2 – REQUEST WITHDRAWAL

User Story	As a therapist, I want to withdraw my balance to my bank or wallet.
Actor	Therapist
Preconditions	- Minimum withdrawal amount met. - Verified payment method available.
Postconditions	- Withdrawal request processed.
Main Flow	1. Therapist clicks 'Withdraw'. 2. Enters amount. 3. Selects payment method. 4. System submits request.
Alternative Flow	A1 – Insufficient Balance: Displays error. A2 – Invalid Account: Requests update.

FEAT16.1 – RECEIVE REAL-TIME NOTIFICATIONS

User Story	As a therapist, I want to receive alerts for new bookings, cancellations, and reviews so I stay updated.
Actor	Therapist
Preconditions	- Notifications enabled. - Active session connected to notification server.
Postconditions	- Notifications displayed in app and stored in log.
Main Flow	1. Therapist receives pop-up or in-app notification. 2. Clicks to view details. 3. System marks notification as read.
Alternative Flow	A1 – Network Offline: Notifications queued. A2 – Dismissed Alert: Marked as 'read' but can be rechecked later.

FEAT17: PATIENT REGISTRATION, LOGIN, AND PROFILE MANAGEMENT:

Story ID	US-001
Statement	As a Patient, I want to register with my name or alias, optional email, and password so that I can create an account and access the platform's services.
Actor	Patient
Preconditions	- The patient is not already registered in the system. - The system is online and accessible. - The registration page is available and functional.
Main Flow	**Navigation:** 1. The Patient navigates to the platform's homepage and clicks the "Register" button. 2. The System redirects the Patient to the Registration Page. **Filling Registration Details:** 3. The Patient enters the following details: • **Full Name / Alias Name (required):** Text input (max length 255). • **Email (Optional):** If provided, must be a valid format (e.g., user@example.com). • **Password (Required):** Minimum 8 characters, must include letters and numbers. • **Confirm Password (Required):** Must match password. **Account Creation:** 4. The System validates the entered data according to rules. 5. If all validations pass, the System: • Creates a new patient account in the database. • If an email is provided, sends a verification email. • Displays a success message: "Account created successfully." • If no email is provided, the system allows login using the alias name and password.
Alternate Flow	**A1 – Missing or Invalid Password (Step 4):** If the password or confirm password is empty, the system displays: "Password is required." **A2 – Password Validation Failed (Step 4):** If the password doesn't meet complexity rules, the system shows: "Password must be at least 8 characters and include both letters and numbers." **A3 – Invalid Email Format (Step 4):** If the optional email is entered but has invalid format, the system shows: "Please enter a valid email address." **A4 – Email Already Registered (Step 4):** If the optional email already exists in the database, the system shows: "This email is already registered. Please log in or use a different one." **A5 – System Error (Step 5):** If there's a technical issue during registration, the system shows: "An error occurred while creating your account. Please try again later."
Postconditions	- A new patient account is created and stored in the system database. - If an email was provided, a verification email is sent. - The patient can log in using their alias name and password (or email and password if provided).

Story ID	US-001
Statement	As a Patient, I want to log in securely using my alias name or email and password so that I can access my account and use the platform's services.
Actor	Patient
Preconditions	The patient must already have a registered account in the system. The system is online and accessible. The login page is available and functional.
Main Flow	Navigation: 1. The Patient navigates to the platform's homepage and clicks the "Login" button. 2. The System redirects the Patient to the Login Page. Entering Credentials: 3. The Patient enters one of the following in the "Username / Email" field: • Alias Name (if set during registration) or • Registered Email Address (if provided). 4. The Patient enters their Password in the password field. 5. The Patient clicks the "Login" button. Authentication: 6. The System validates that all required fields are filled. 7. The System checks if the entered credentials (alias/email + password) match an existing account. 8. If valid, the System logs the patient in and redirects them to their Dashboard.
Alternate Flow	A1 – Missing Fields (Step 6): If the patient leaves any field empty, the system highlights the missing field(s) and shows: "Please enter your alias/email and password." A2 – Invalid Email Format (Step 6): If an email is entered but not in valid format, the system displays: "Please enter a valid email address." A3 – Incorrect Credentials (Step 7): If the alias name/email or password does not match any record, the system shows: "Incorrect alias/email or password. Please try again." A4 – Account Not Verified (Step 7): If the patient's account is not verified, the system displays: "Please verify your email before logging in" and provides an option to resend the verification link. A5 – Account Locked (Step 7): If the patient enters incorrect credentials multiple times (e.g., 5 attempts), the system temporarily locks the account and shows: "Too many failed attempts. Please try again later or reset your password." A6 – System Error (Step 8): If a technical error occurs (e.g., database issue), the system displays: "Login failed due to a system error. Please try again later."
Postconditions	The patient is successfully authenticated and logged into the system. The system creates a new active session for the patient. The patient is redirected to their dashboard or homepage. In case of failure, no session is created, and appropriate error messages are displayed.

Story ID	US-003
Statement	As a Patient, I want to edit my **profile (photo, phone, medical history)** so that my information stays up to date.
Actor	Patient
Preconditions	- The patient must be logged into the system. - The profile page is accessible. - The system is online and functional.
Main Flow	Navigation: 1. The Patient navigates to the "My Profile" section from the dashboard menu. 2. The System displays the current profile details (photo, name, phone, email, medical history, etc.). Editing Profile Details: 3. The Patient clicks the "Edit Profile" button. 4. The System enables editable fields for: • Profile Photo (Optional): Upload image (JPG, PNG, max 5MB). • Phone Number (Optional): Must be a valid format (e.g., +201XXXXXXXXX). • Medical History (Optional): Text area, up to 2000 characters. 5. The Patient updates the desired information and clicks "Save Changes." Saving Changes: 6. The System validates all entered data (e.g., file type, phone format, character limits). 7. The System updates the patient's information in the database. 8. The System displays a confirmation message: "Your profile has been updated successfully."

Alternate Flow	A1 – Invalid Phone Format (Step 6): If the entered phone number is invalid, the system displays: “Please enter a valid phone number.” A2 – Invalid Photo Format/Size (Step 6): If the uploaded image exceeds the size limit or is not JPG/PNG, the system shows: “Invalid image format or size. Please upload a JPG or PNG file under 5MB.” A3 – Missing Required Data (Step 6): If any required profile field (e.g., name) is cleared, the system highlights it and shows: “This field cannot be empty.” A4 – System Error (Step 7): If an error occurs during saving, the system displays: “An error occurred while updating your profile. Please try again later.”
Postconditions	- The updated profile data is saved in the system database. - The patient’s new information (photo, phone, medical history) is displayed correctly. - A confirmation message confirms successful update.

FEAT17: RESET PATIENT PASSWORD

Story ID	**US-004**
User Story Title	Reset Patient Password
Statement	As a Patient, I want to reset my password if I forget it so that I can regain access to my account.
Actor	Patient (Main Actor), System (Supporting Actor)
Preconditions	- The patient must already have an account in the system. - The system is online and accessible. - The “Forgot Password” page is available and functional.
Main Flow	**Navigation:** 1. The Patient navigates to the “Login” page. 2. The Patient clicks the “Forgot Password?” link. 3. The System redirects the Patient to the “Password Reset” page. **Request Reset:** 4. The Patient enters one of the following: • Registered Email Address (if available), or • Alias Name (if email was not provided during registration). 5. The Patient clicks “Submit.” **Verification & Reset Link:** 6. The System verifies the entered information. 7. If a valid email is associated with the account, the System sends a password reset link to that email. 8. If no email exists (alias-based account), the System sends a temporary code to the patient’s registered phone number (if available). 9. The System displays: “If your account exists, you will receive a password reset link or code shortly.” **Password Reset:** 10. The Patient opens the reset link or enters the received code. 11. The System redirects to the “Create New Password” page. 12. The Patient enters and confirms the new password. 13. The System validates the new password (minimum 8 characters, must include letters and numbers). 14. The System updates the password and displays: “Your password has been reset successfully. You can now log in.”
Alternate Flow	**A1 – Invalid Email or Alias (Step 6):** If the provided email or alias does not exist, the system displays: “No account found with the provided details.” **A2 – Invalid or Expired Reset Link/Code (Step 10):** If the reset link or code has expired or is invalid, the system shows: “The reset link or code is invalid or expired. Please request a new one.” **A3 – Password Validation Failed (Step 13):** If the new password doesn’t meet the security criteria, the system shows: “Password must be at least 8 characters and include both letters and numbers.” **A4 – System Error (Step 14):** If a technical issue occurs during reset, the system shows: “An error occurred while resetting your password. Please try again later.”
Postconditions	- The patient’s password is updated in the system database. - The patient can now log in using the new password. - Any temporary reset tokens or codes are invalidated for security.

FEAT18: VIEW AVAILABLE THERAPISTS

Field	Details
Story ID	**US-018.1**
User Story Title	View Available Therapists
Statement	As a patient, I want to view a list of all available therapists so that I can choose one suitable for my needs.
Actor	Patient (Main Actor), System (Supporting Actor)
Preconditions	- The patient must be logged into the system. - The system must have therapist profiles stored in the database. - The "Therapists" or "Find Therapist" page must be available and functional.
Main Flow	**Navigation:** 1. The Patient navigates to the "Therapists" section from the main menu or dashboard. 2. The System displays a list of available therapists. **Display Details:** 3. Each therapist entry includes: • Name • Specialization • Experience (years) • Rating / Reviews • Availability status **Optional Actions:** 4. The Patient can scroll through the list to view more therapists. 5. The Patient can click on a therapist's name to view their detailed profile.
Alternate Flow	**A1 – No Therapists Found:** If there are no therapists available, the system displays: "No therapists are available at the moment. Please check again later." **A2 – System Error:** If a technical issue occurs (e.g., database connection error), the system displays: "Unable to load therapist list. Please try again later."
Postconditions	- The patient successfully views the list of available therapists. - The system displays up-to-date information retrieved from the therapist database. - The patient can proceed to view details or book an appointment.

FEAT18: VIEW THERAPIST DETAILS

Field	Details
Story ID	**US-018.2**
User Story Title	View Therapist Details
Statement	As a patient, I want to see therapists' details (name, photo, specialty, rating) so that I can choose the most suitable therapist for me.
Actor	Patient (Main Actor), System (Supporting Actor)
Preconditions	- The patient must have access to the list of available therapists. - The therapist information (name, photo, specialty, rating) must exist in the system database. - The system must be online and able to retrieve data.

Main Flow	**Navigation:** 1. The Patient navigates to the “Therapists” page. 2. The System displays a list/grid of available therapists. **Viewing Details:** 3. For each therapist, the System shows: • Therapist Photo (profile image). • Full Name. • Specialty/Field (e.g., Anxiety, Family Therapy). • Average Rating (based on patient reviews). 4. The Patient can click on any therapist card to view more details (if available).
Alternate Flow	**A1 – Missing Information:** If any therapist detail (e.g., photo or rating) is unavailable, the system displays a default placeholder (e.g., “No photo available” or “Rating not yet available”). **A2 – System Error:** If there’s a problem loading therapist data, the system shows: “Unable to load therapist details. Please try again later.”
Postconditions	- The patient can view essential therapist details in a clear, organized format. - The system successfully retrieves and displays therapist data from the database. - The patient can proceed to view the full profile or book an appointment.

FEAT18: CHECK THERAPIST AVAILABILITY

Field	Details
Story ID	**US-018.3**
User Story Title	Check Therapist Availability
Statement	As a patient, I want to check therapist availability before booking so that I can choose a suitable time for my session.
Actor	Patient (Main Actor), System (Supporting Actor)
Preconditions	- The patient is logged into the system. - Therapist profiles and schedules are already stored in the system database. - The system is online and able to fetch availability data.
Main Flow	**Navigation:** 1. The Patient navigates to the “Therapists” page. 2. The Patient selects a specific therapist from the list. **Viewing Availability:** 3. The System displays the therapist’s available days and time slots (e.g., Monday 10 AM – 2 PM, Wednesday 5 PM – 8 PM). 4. The Patient browses through available time slots. 5. The Patient selects a preferred date/time to proceed with booking.
Alternate Flow	**A1 – No Available Slots:** If the therapist has no open sessions, the system displays: “This therapist has no available sessions at the moment.” **A2 – System Error:** If an error occurs while retrieving the schedule, the system displays: “Unable to load availability. Please try again later.”
Postconditions	- The patient successfully views the therapist’s availability schedule. - The selected date/time is stored temporarily until the booking process begins. - The patient can proceed to confirm the appointment in the next step.

FEAT18: FILTER THERAPISTS

Field	Details
Story ID	UC-019.1
User Story Title	Filter Therapists
Statement	As a patient, I want to filter therapists by specialty, rating, availability, price, location, or language so that I can easily find the most suitable therapist for my needs.
Actor	Patient (Main Actor), System (Supporting Actor)
Preconditions	- The patient is logged into the system. - Therapist profiles, specialties, ratings, availability, price, location, and languages spoken exist in the database. - The therapist directory page is accessible and functional.
Main Flow	**Navigation:** 1. The Patient navigates to the "Therapists Directory" page. 2. The System displays a list of all available therapists. **Applying Filters:** 3. The Patient selects one or more filters from the options: • Specialty (e.g., Psychology, Family Therapy, Addiction Counseling). • Rating (e.g., 4 stars and above). • Availability (e.g., Available this week). • Price (e.g., within budget range). • Location (e.g., city or distance from patient). • Language (e.g., English, Spanish, Arabic). 4. The Patient clicks the "Apply Filters" button. 5. The System processes the filters and updates the list to show only therapists matching the selected criteria. 6. The System displays: "Showing X therapists matching your filters."
Alternate Flow	**A1 – No Results Found (Step 5):** If no therapists match the applied filters, the system displays: "No therapists found. Try adjusting your filters." **A2 – System Error (Step 5):** If a technical issue occurs while filtering, the system displays: "An error occurred while applying filters. Please try again later."
Postconditions	- The filtered list of therapists is displayed according to the selected criteria. - The patient can select a therapist from the filtered results to view more details or book an appointment.

Field	Details
Story ID	UC-019.1
User Story Title	Filter Therapists
Statement	As a patient, I want to filter therapists by specialty, rating, availability, price, or location so that I can easily find the most suitable therapist for my needs.
Actor	Patient (Main Actor), System (Supporting Actor)

Preconditions	- The patient is logged into the system. - Therapist profiles, specialties, ratings, availability, price, and location data exist in the database. - The therapist directory page is accessible and functional.
Main Flow	**Navigation:** 1. The Patient navigates to the "Therapists Directory" page. 2. The System displays a list of all available therapists. **Applying Filters:** 3. The Patient selects one or more filters from the options: • Specialty (e.g., Psychology, Family Therapy, Addiction Counseling). • Rating (e.g., 4 stars and above). • Availability (e.g., Available this week). • Price (e.g., within budget range). • Location (e.g., city or distance from patient). 4. The Patient clicks the "Apply Filters" button. 5. The System processes the filters and updates the list to show only therapists matching the selected criteria. 6. The System displays: "Showing X therapists matching your filters."
Alternate Flow	**A1 – No Results Found (Step 5):** If no therapists match the applied filters, the system displays: "No therapists found. Try adjusting your filters." **A2 – System Error (Step 5):** If a technical issue occurs while filtering, the system displays: "An error occurred while applying filters. Please try again later."
Postconditions	- The filtered list of therapists is displayed according to the selected criteria. - The patient can select a therapist from the filtered results to view more details or book an appointment.

FEAT18: SEARCH THERAPISTS BY KEYWORDS

Field	Details
Story ID	UC-019.2
User Story Title	Search Therapists by Keywords
Statement	As a patient, I want to search for therapists using keywords (e.g., name, specialty, expertise) so that I can quickly find relevant therapists without browsing the full directory.
Actor	Patient (Main Actor), System (Supporting Actor)
Preconditions	- The patient is logged into the system. - Therapist profiles with names, specialties, expertise, and other relevant data exist in the database. - The therapist directory page is accessible and functional.
Main Flow	**Navigation:** 1. The Patient navigates to the "Therapists Directory" page. 2. The System displays a search bar for keywords. **Keyword Search:** 3. The Patient enters one or more keywords in the search bar (e.g., "Psychologist," "Family Therapy," "John Doe"). 4. The Patient clicks the "Search" button. 5. The System processes the keywords and displays a list of therapists matching the search terms. 6. The System displays: "Showing X therapists matching your search."

Alternate Flow	**A1 – No Results Found (Step 5):** If no therapists match the entered keywords, the system displays: "No therapists found. Try different keywords." **A2 – System Error (Step 5):** If a technical issue occurs during the search, the system displays: "An error occurred while searching. Please try again later."
Postconditions	- A list of therapists matching the entered keywords is displayed. - The patient can select a therapist from the search results to view more details or book an appointment.

FEAT18: BOOK THERAPY SESSION

Field	Details
Story ID	UC-020.1
User Story Title	Book Therapy Session
Statement	As a patient, I want to book a therapy session with a therapist so that I can schedule an appointment according to my availability.
Actor	Patient (Main Actor), System (Supporting Actor)
Preconditions	- The patient is logged into the system. - Therapist profiles and availability schedules exist in the database. - The therapist's profile or booking page is accessible. - Payment methods (if applicable) are available and verified. - Patient's personal information is up-to-date for session booking.
Main Flow	**Navigation:** 1. The Patient navigates to the therapist's profile or the booking page. 2. The System displays therapist details, including photo, specialty, rating, fees, and available time slots. **Selecting Session:** 3. The Patient selects a preferred date and time slot. 4. The Patient selects the session type (e.g., online, in-person) if applicable. 5. The Patient confirms the selection and clicks the "Book Session" button. **Booking Validation:** 6. The System checks: • The selected time slot is still available. • The patient meets any requirements for that session type (e.g., payment, subscription). 7. If validation passes, the System reserves the appointment, updates the therapist's schedule, and displays a confirmation message: "Your session has been booked successfully." 8. The System sends a confirmation notification/email to the patient, including session details (date, time, therapist, session type, and cancellation policy).
Alternate Flow	**A1 – Slot Unavailable (Step 6):** If the selected time slot is no longer available, the system displays: "Selected slot is not available. Please choose another time." **A2 – Invalid Selection (Step 4):** If the patient does not select a session type when required, the system displays: "Please select a session type to continue." **A3 – Payment Failure (Step 6):** If a payment is required and fails, the system displays: "Payment could not be processed. Please try a different method or contact support." **A4 – System Error (Step 7):** If a technical issue occurs during booking, the system displays: "Booking failed due to a system error. Please try again later."

Postconditions	- The therapy session is successfully booked and stored in the system database. - The therapist's availability schedule is updated. - The patient receives a confirmation notification/email with all session details. - The patient can view the booked session in their appointments list. - If applicable, the payment is confirmed and recorded. - Any failed booking attempt does not create a session or reserve the slot.

UC20.2: MAKE PAYMENT

Field	Details
Story ID	UC-020.2
User Story Title	Make Payment
Statement	As a patient, I want to make a payment for a therapy session so that I can confirm my booking and access the session.
Actor	Patient (Main Actor), System (Supporting Actor), Payment Gateway (Supporting Actor)
Preconditions	- The patient has a booked therapy session that requires payment. - The patient is logged into the system. - Payment methods (e.g., credit card, PayPal, wallet) are available and valid. - The system is online and accessible.
Main Flow	**Navigation:** 1. The Patient navigates to the "My Appointments" or "Payment" page. 2. The System displays pending sessions that require payment. **Selecting Payment Method:** 3. The Patient selects a preferred payment method. 4. The Patient enters the required payment details (e.g., card number, expiry, CVV, or wallet login). 5. The Patient clicks the "Pay Now" button. **Payment Processing:** 6. The System forwards the payment details to the Payment Gateway. 7. The Payment Gateway validates and processes the payment. 8. If the payment is successful, the System updates the session status to "Confirmed" and displays: "Payment successful. Your session is confirmed." 9. The System sends a confirmation notification/email to the patient with payment receipt and session details.
Alternate Flow	**A1 – Payment Declined (Step 7):** If the payment is declined (insufficient funds, invalid card, etc.), the system displays: "Payment failed. Please try another payment method." **A2 – Missing Payment Details (Step 4):** If the patient leaves required fields empty, the system highlights the missing fields and shows: "Please enter all required payment details." **A3 – Session Already Paid (Step 6):** If the session is already paid, the system displays: "This session has already been paid." **A4 – System/Payment Gateway Error (Step 7):** If a technical issue occurs, the system displays: "Payment could not be processed due to a system error. Please try again later."

Postconditions	- Payment is successfully processed and recorded in the system. - The therapy session status is updated to "Confirmed." - A receipt/confirmation is sent to the patient via email or notification. - In case of failure, the session remains unpaid, and the patient can retry payment.

UC20.3: RECEIVE SESSION CONFIRMATION

Field	Details
Story ID	UC-020.3
User Story Title	Receive Session Confirmation
Statement	As a patient, I want to receive confirmation for my booked therapy session so that I can be assured that my appointment is scheduled.
Actor	Patient (Main Actor), System (Supporting Actor)
Preconditions	- The patient has successfully booked a therapy session. - Payment (if required) has been processed. - The system is online and accessible. - The patient's contact information (email or phone) is valid.
Main Flow	**Notification of Confirmation:** 1. After the session booking and payment are completed, the System generates a session confirmation. 2. The System sends a confirmation email or in-app notification to the patient including: • Therapist name and photo • Session date and time • Session type (e.g., online or in-person) • Location or link to online session • Payment receipt (if applicable) 3. The System displays a confirmation message in the patient dashboard: "Your session has been confirmed."
Alternate Flow	**A1 – Invalid Contact Information:** If the patient's email or phone is invalid, the system shows: "Could not send confirmation. Please update your contact details." **A2 – System Error:** If a technical issue occurs during sending confirmation, the system displays: "Session confirmation could not be sent. Please check your dashboard for details."
Postconditions	- The patient receives a confirmation of the booked session via email or notification. - The session status in the system is marked as "Confirmed." - The patient can view session details anytime in their dashboard.

UC21.1: VIEW UPCOMING APPOINTMENTS

Field	Details
Story ID	UC-021.1
User Story Title	View Upcoming Appointments
Statement	As a patient, I want to view my upcoming therapy appointments so that I can manage my schedule and be prepared.
Actor	Patient (Main Actor), System (Supporting Actor)

Preconditions	- The patient has one or more booked therapy sessions in the system. - The system is online and accessible. - The patient is logged into their account.
Main Flow	**Navigation:** 1. The Patient navigates to the “My Appointments” or “Dashboard” page. 2. The System displays a list of all upcoming appointments. **Viewing Appointment Details:** 3. Each appointment entry shows: • Therapist name and photo • Session date and time • Session type (e.g., online or in-person) • Location or online session link • Payment status (if applicable) 4. The Patient can click an appointment to view full details.
Alternate Flow	**A1 – No Upcoming Appointments:** If the patient has no scheduled sessions, the system displays: “You have no upcoming appointments.” **A2 – System Error:** If a technical issue occurs while retrieving appointments, the system displays: “Unable to load upcoming appointments. Please try again later.”
Postconditions	- The patient can view all upcoming appointments along with relevant details. - The patient can use this information to prepare for sessions or take further actions (e.g., cancel or reschedule).

UC21.2: VIEW SESSION HISTORY

Field	Details
Story ID	UC-021.2
User Story Title	View Session History
Statement	As a patient, I want to view my past therapy sessions so that I can keep track of my progress and review previous sessions.
Actor	Patient (Main Actor), System (Supporting Actor)
Preconditions	- The patient has completed one or more therapy sessions. - The system is online and accessible. - The patient is logged into their account.
Main Flow	**Navigation:** 1. The Patient navigates to the “My Sessions” or “Dashboard” page. 2. The System displays a list of all completed sessions. **Viewing Session Details:** 3. Each session entry shows: • Therapist name and photo • Session date and time • Session type (e.g., online or in-person) • Summary or notes (if available) 4. The Patient can click a session to view full details.
Alternate Flow	**A1 – No Past Sessions:** If the patient has no completed sessions, the system displays: “You have no past sessions.” **A2 – System Error:** If a technical issue occurs while retrieving the session history, the system displays: “Unable to load session history. Please try again later.”

Postconditions	- The patient can view all past therapy sessions along with relevant details. - The patient can use this information to track progress, review session notes, or follow up with their therapist if needed.

UC21.3: CANCEL OR RESCHEDULE SESSION

Field	Details
Story ID	UC-021.3
User Story Title	Cancel or Reschedule Session
Statement	As a patient, I want to cancel or reschedule my upcoming therapy sessions so that I can manage my schedule effectively.
Actor	Patient (Main Actor), System (Supporting Actor)
Preconditions	- The patient has one or more upcoming therapy sessions. - The system is online and accessible. - The patient is logged into their account.
Main Flow	**Navigation:** 1. The Patient navigates to the “My Sessions” or “Upcoming Appointments” page. 2. The System displays a list of upcoming sessions. **Cancel or Reschedule:** 3. The Patient selects a session they want to cancel or reschedule. 4. The Patient chooses either: • Cancel: confirms the cancellation. • Reschedule: selects a new date and time. 5. The System updates the session details and notifies the therapist.
Alternate Flow	**A1 – Cancellation Deadline Passed:** If the session cannot be canceled due to policy (e.g., less than 24 hours remaining), the system displays: “This session cannot be canceled. Please contact support.” **A2 – Rescheduling Conflict:** If the chosen new time is unavailable, the system displays: “Selected time is unavailable. Please choose a different time.” **A3 – System Error:** If a technical issue occurs, the system displays: “Unable to update session. Please try again later.”
Postconditions	- The upcoming session is either canceled or rescheduled successfully. - The therapist is notified of any changes. - The patient sees the updated schedule in their account. - If a cancellation fee applies, the system handles billing accordingly.

USE CASE UC22.1: BROWSE SELF-HELP RESOURCES

Field	Details
Story ID	UC22.1
User Story Title	Browse Self-Help Resources
Statement	As a patient, I want to browse self-help resources uploaded by therapists so that I can access useful materials to support my mental health.
Actor	Patient (Main Actor), System (Supporting Actor)

Preconditions	- The patient is logged into the system. - Self-help resources (PDFs, videos, articles) are available in the database. - The resources page is accessible.
Main Flow	**Navigation:** 1. The Patient navigates to the "Self-Help Resources" page. 2. The System displays a list of available resources. **Browsing:** 3. The Patient filters or searches resources by type, topic, or therapist. 4. The Patient selects a resource to view/download. 5. The System displays the resource or initiates download.
Alternate Flow	**A1 – No Resources Available (Step 2):** If no resources exist, the system displays: "No self-help resources available at the moment." **A2 – System Error (Step 5):** If a technical issue occurs while displaying or downloading a resource, the system shows: "Unable to load the resource. Please try again later."
Postconditions	- The patient views or downloads the selected self-help resources. - The system logs the patient's activity for future reference or analytics.

USE CASE UC22.2: DOWNLOAD RESOURCE

Field	Details
Story ID	UC22.2
User Story Title	Download Resource
Statement	As a patient, I want to download self-help resources so that I can access them offline and refer to them whenever needed.
Actor	Patient (Main Actor), System (Supporting Actor)
Preconditions	- The patient is logged into the system. - The resource exists in the database. - The patient has access to the "Self-Help Resources" page.
Main Flow	**Navigation:** 1. The Patient navigates to the "Self-Help Resources" page. 2. The System displays a list of available resources. **Download:** 3. The Patient selects a resource to download. 4. The Patient clicks the "Download" button. 5. The System processes the request and initiates the download of the selected resource.
Alternate Flow	**A1 – Resource Not Available (Step 3):** If the resource has been removed or is unavailable, the system displays: "Resource not found or unavailable." **A2 – System Error (Step 5):** If a technical issue occurs during download, the system displays: "Download failed. Please try again later."
Postconditions	- The selected resource is downloaded to the patient's device. - The system logs the download activity for future reference or analytics.

USE CASE UC23.1: SEND REMINDER NOTIFICATION

Field	Details
Story ID	UC23.1
User Story Title	Send Reminder Notification
Statement	As a patient, I want to receive reminder notifications for upcoming therapy sessions so that I don't miss my appointments.
Actor	System (Main Actor), Patient (Receiving Actor)
Preconditions	- The patient has one or more scheduled sessions. - Notification preferences (email, SMS, or in-app) are enabled. - The system has access to the patient's contact information.
Main Flow	**Trigger:** 1. The System checks upcoming sessions periodically (e.g., every hour). 2. The System identifies sessions scheduled within the next 24 hours. **Notification Process:** 3. The System prepares a reminder message containing session details (therapist name, date, time, type, and link if online). 4. The System sends the reminder to the patient via the selected channel (email/SMS/in-app). 5. The System logs that the reminder was successfully sent.
Alternate Flow	**A1 – Notification Delivery Failed (Step 4):** If the reminder fails to send (e.g., network issue or invalid contact), the system retries or logs the failure for admin review. **A2 – Notification Disabled (Step 1):** If the patient has disabled notifications, the system skips sending reminders.
Postconditions	- The patient receives a reminder before the session. - The system logs the notification event for tracking and analytics.

USE CASE UC23.2: SEND RESOURCE NOTIFICATION

Field	Details
Story ID	UC23.2
User Story Title	Send Resource Notification
Statement	As a patient, I want to receive notifications about new self-help resources so that I can stay informed and access useful materials for my mental well-being.
Actor	System (Main Actor), Patient (Receiving Actor)
Preconditions	- The patient is registered and has notification preferences enabled (email, SMS, or in-app). - New self-help resources (articles, videos, or guides) are added to the system. - The system has access to the patient's subscription or interest preferences.

Main Flow	**Trigger:** 1. The System detects or receives an update about newly added self-help resources. 2. The System identifies patients who have opted in to receive resource updates or follow related topics. **Notification Process:** 3. The System prepares a notification message containing resource details (title, category, short description, and link). 4. The System sends the notification through the selected channel (email/SMS/in-app). 5. The System logs the notification delivery status.
Alternate Flow	**A1 – Notification Delivery Failed (Step 4):** If the message cannot be delivered, the system retries sending or logs the failure for admin monitoring. **A2 – Notifications Disabled (Step 2):** If the patient has disabled notifications or unsubscribed from resource updates, the system skips sending.
Postconditions	- The patient is informed about newly available self-help resources. - The notification delivery is logged for tracking and engagement analytics.

USE CASE UC23.3: SEND PAYMENT CONFIRMATION

Field	Details
Story ID	UC23.3
User Story Title	Send Payment Confirmation
Statement	As a patient, I want to receive a payment confirmation notification so that I can be sure my transaction was successful and have a record of my payment.
Actor	System (Main Actor), Patient (Receiving Actor)
Preconditions	- The patient has successfully completed a session payment. - The payment gateway confirms a successful transaction. - The system has the patient’s contact information (email, phone, or app account).
Main Flow	**Trigger:** 1. The System receives a “Payment Successful” status from the payment gateway. **Notification Process:** 2. The System retrieves payment details (amount, date, session ID, therapist name). 3. The System generates a confirmation message including payment summary and receipt link. 4. The System sends the notification to the patient via the preferred channel (email/SMS/in-app). 5. The System logs the notification delivery status for records.
Alternate Flow	**A1 – Notification Delivery Failed (Step 4):** If the message cannot be delivered, the system retries sending or logs the failure for admin review. **A2 – Payment Pending (Before Step 1):** If the payment gateway does not confirm the transaction, the system does not send a confirmation and may instead send a “Payment Pending” or “Failed” notification.

Postconditions	- The patient receives a payment confirmation message with all necessary details. - The confirmation is stored in the patient's account and system logs for future reference.

USE CASE: UC24.1 – VIEW PAYMENT HISTORY

Field	Details
Story ID	UC24.1
User Story Title	View Payment History
Statement	As a patient, I want to view my past payment history so that I can track my expenses and verify previous transactions.
Actor	Patient (Main Actor), System (Supporting Actor)
Preconditions	- The patient is logged into the system. - Payment records exist in the database for that patient. - The "Payment History" page or section is accessible.
Main Flow	**Navigation:** 1. The Patient navigates to their "Profile" or "Payment History" section. 2. The System retrieves all previous payment records linked to the patient's account. 3. The System displays the list in a table format including: • Transaction ID • Date and Time • Amount Paid • Therapist / Session Details • Payment Method (e.g., card, wallet) **Interaction:** 4. The Patient can sort or filter payments by date, amount, or therapist. 5. The Patient can click on any record to view a detailed receipt or download it.
Alternate Flow	**A1 – No Payment Records Found (Step 2):** If no transactions are found, the system displays: "No payment history available." **A2 – System Error (Step 2):** If there's a database or server issue, the system displays: "Unable to retrieve payment history. Please try again later."
Postconditions	- The patient can successfully view and review their complete payment history. - The patient can download or print receipts for their records. - The system logs the viewing activity for auditing or security purposes.

USE CASE: UC24.2 – DOWNLOAD INVOICE

Field	Details
Story ID	UC24.2
User Story Title	Download Invoice
Statement	As a patient, I want to download an invoice for my completed therapy sessions so that I can keep a record or use it for reimbursement.
Actor	Patient (Main Actor), System (Supporting Actor)

Preconditions	- The patient is logged into the system. - The patient has at least one completed and paid session. - The payment and session details are available in the database.
Main Flow	**Navigation:** 1. The Patient navigates to the "Payment History" or "Sessions History" page. 2. The System displays a list of completed and paid sessions. **Invoice Download:** 3. The Patient selects a session and clicks the "Download Invoice" button. 4. The System generates a PDF invoice containing: • Patient Name • Therapist Name and Specialty • Session Date and Time • Duration and Price • Payment Method and Transaction ID • Invoice Number and Date 5. The System prompts the Patient to save or open the invoice file. 6. The Patient successfully downloads the invoice.
Alternate Flow	**A1 – Invoice Not Available (Step 3):** If no invoice is generated for that session, the system displays: "Invoice not available for this transaction." **A2 – System Error (Step 4):** If an error occurs while generating the invoice, the system displays: "Unable to generate invoice. Please try again later."
Postconditions	- The patient successfully downloads a digital (PDF) copy of the invoice. - The system logs the download action for record-keeping and audit purposes. - The invoice can be reused for insurance or reimbursement if needed.

USE CASE: UC24.3 – MANAGE PAYMENT METHOD

Field	Details
Story ID	UC24.3
User Story Title	Manage Payment Method
Statement	As a patient, I want to add, update, or remove my saved payment methods so that I can manage how I pay for therapy sessions easily and securely.
Actor	Patient (Main Actor), System (Supporting Actor), Payment Gateway (External System)
Preconditions	- The patient is logged into the system. - The platform supports multiple payment methods (e.g., credit/debit card, PayPal, wallet). - The payment gateway is active and connected. - The "Payment Settings" page is accessible and functional.

Main Flow	**Navigation:** 1. The Patient navigates to the "Payment Settings" page. 2. The System displays a list of saved payment methods (if any). **Add New Method:** 3. The Patient clicks "Add Payment Method." 4. The System displays a form to enter payment details (e.g., card number, expiry date, CVV). 5. The Patient submits the form. 6. The System securely validates and saves the new payment method through the payment gateway. **Edit / Remove Method:** 7. The Patient selects an existing payment method. 8. The Patient can choose to either: • Edit payment details (e.g., update card expiry), or • Remove the saved method. 9. The System updates or deletes the selected method accordingly and displays a confirmation message.
Alternate Flow	**A1 – Invalid Payment Details (Step 5):** If the entered payment information is invalid, the system displays: "Invalid payment details. Please check and try again." **A2 – Payment Gateway Error (Step 6):** If the payment gateway is unavailable, the system displays: "Unable to connect to payment service. Please try again later." **A3 – Unauthorized Action (Step 8):** If the patient tries to edit or remove a method not linked to their account, the system displays: "Action not allowed."
Postconditions	- The patient's payment methods are securely stored or updated in the system. - The patient can use the updated methods for future transactions. - All sensitive payment data is encrypted and managed per security standards (e.g., PCI-DSS).

USE CASE: UC25.1 – CONTACT SUPPORT

Field	Details
Story ID	UC25.1
User Story Title	Contact Support
Statement	As a patient, I want to contact the support team through chat, email, or a contact form so that I can get help when I face issues or have questions.
Actor	Patient (Main Actor), Support Agent (Secondary Actor), System (Supporting Actor)
Preconditions	- The patient is logged into the system (for chat or form). - The support system (live chat or ticketing) is online and available. - The "Contact Support" page is accessible and functional.

Main Flow	**Navigation:** 1. The Patient navigates to the “Help” or “Contact Support” section from the main menu. 2. The System displays the available support options (e.g., Live Chat, Email Form, FAQ). **Submitting a Request:** 3. The Patient selects a contact option: • **Live Chat** – Opens a chat window with a support agent or chatbot. • **Email Form** – Displays a form to enter name, email, and message. 4. The Patient writes their message or question and submits it. 5. The System sends the message to the support team and generates a ticket (if applicable). 6. The Support Agent or chatbot responds via the selected communication method.
Alternate Flow	**A1 – Missing Information (Step 4):** If required fields (e.g., email or message) are missing, the system highlights them and shows: “Please fill in all required fields.” **A2 – Support Unavailable (Step 6):** If no support agents are available, the system displays: “Support is currently unavailable. Please try again later or send an email.” **A3 – System Error (Step 5):** If a technical issue occurs while sending the message, the system shows: “An error occurred while submitting your request. Please try again later.”
Postconditions	- The patient’s message or inquiry is successfully submitted. - A support ticket or chat thread is created for tracking. - The patient receives confirmation or a follow-up message from support.

USE CASE: UC25.2 – TRACK SUPPORT TICKET

Field	Details
Story ID	UC25.2
User Story Title	Track Support Ticket
Statement	As a patient, I want to track the status of my submitted support ticket so that I can know if my issue is being resolved or requires further action.
Actor	Patient (Main Actor), Support Agent (Secondary Actor), System (Supporting Actor)
Preconditions	- The patient must have previously submitted at least one support ticket. - The system must store and manage ticket statuses (e.g., Open, In Progress, Resolved, Closed). - The patient is logged into their account.
Main Flow	**Navigation:** 1. The Patient navigates to the “Support” or “My Tickets” page. 2. The System retrieves all tickets submitted by the patient. 3. The System displays a list showing each ticket’s ID, subject, date submitted, and current status (e.g., Open, In Progress, Resolved). **Viewing Ticket Details:** 4. The Patient clicks on a specific ticket to view more details. 5. The System displays the full conversation, ticket history, and the latest response from the support team. 6. The Patient can add a new comment or reply if the ticket is still open. 7. The System updates the ticket with the new message and notifies the assigned support agent.

Alternate Flow	**A1 – No Tickets Found (Step 2):** If the patient has not submitted any tickets, the system displays: “No support tickets found.” **A2 – Ticket Closed (Step 6):** If the patient tries to comment on a closed ticket, the system displays: “This ticket is closed and cannot be updated. Please create a new one.” **A3 – System Error (Step 2 or 5):** If a technical issue occurs while retrieving or displaying tickets, the system shows: “Unable to load your support tickets. Please try again later.”
Postconditions	- The patient can successfully view and track their submitted support tickets. - Any new comments or updates are saved and reflected in the ticket history. - The system maintains accurate and updated ticket statuses.

USE CASE: UC26.1 – SUBMIT RATING

Field	Details
Story ID	UC26.1
User Story Title	Submit Rating
Statement	As a patient, I want to submit a rating and feedback after a therapy session so that I can share my experience and help others choose the right therapist.
Actor	Patient (Main Actor), System (Supporting Actor)
Preconditions	- The patient must have completed at least one therapy session. - The system must have a record of the therapist and session details. - The rating feature is enabled and accessible through the patient’s dashboard or session history page.
Main Flow	**Navigation:** 1. The Patient navigates to the “Session History” or “My Appointments” page. 2. The System displays a list of past sessions. **Submitting Rating:** 3. The Patient selects a completed session and clicks “Rate Therapist.” 4. The System displays a rating form with fields: • **Rating:** (1 to 5 stars) • **Feedback:** (Optional text area, max 500 characters) 5. The Patient enters the rating and optional feedback. 6. The Patient clicks “Submit.” 7. The System saves the rating and feedback, associates it with the corresponding therapist, and displays a success message: “Thank you for your feedback!”
Alternate Flow	**A1 – Missing Rating (Step 5):** If the patient does not select a star rating, the system displays: “Please select a rating before submitting.” **A2 – Session Not Completed (Step 3):** If the patient tries to rate an upcoming or cancelled session, the system shows: “You can only rate completed sessions.” **A3 – System Error (Step 7):** If there’s an issue saving the feedback, the system displays: “An error occurred while submitting your rating. Please try again later.”

Postconditions	- The rating and feedback are stored in the system and linked to the therapist's profile. - The therapist's average rating is updated. - The patient receives confirmation that their feedback was successfully submitted.

USE CASE: UC26.2 – WRITE REVIEW

Field	Details
Story ID	UC26.2
User Story Title	Write Review
Statement	As a patient, I want to write a detailed review about my therapist so that I can share my experience and help improve service quality.
Actor	Patient (Main Actor), System (Supporting Actor)
Preconditions	- The patient has completed at least one therapy session with the therapist. - The session is marked as "Completed" in the system. - The patient is logged into their account. - The review feature is available on the therapist's profile or session history page.
Main Flow	**Navigation:** 1. The Patient navigates to "Session History" or the therapist's profile. 2. The System displays past completed sessions or a "Write Review" option. **Writing Review:** 3. The Patient clicks on "Write Review." 4. The System opens a text form with fields: • **Title:** Short headline for the review (optional). • **Review Text:** (Minimum 20, maximum 1000 characters). 5. The Patient writes their review about the session experience, professionalism, and effectiveness. 6. The Patient clicks "Submit Review." 7. The System validates the input and saves the review. 8. The System displays: "Your review has been submitted successfully."
Alternate Flow	**A1 – Empty Review (Step 5):** If the Patient submits without writing text, the system displays: "Please enter your review before submitting." **A2 – Offensive Content (Step 7):** If the review contains inappropriate language, the system rejects it and displays: "Your review contains inappropriate content. Please revise and try again." **A3 – System Error (Step 7):** If there's an issue saving the review, the system displays: "An error occurred while submitting your review. Please try again later."
Postconditions	- The review is saved and linked to the therapist's profile and session record. - The therapist's profile is updated to include the new review. - The patient can view, edit, or delete their review later (if allowed by system policy).

USE CASE: UC26.3 – EDIT OR DELETE REVIEW

Field	Details
Story ID	UC26.3
User Story Title	Edit or Delete Review
Statement	As a patient, I want to edit or delete my previous review so that I can correct or remove my feedback if needed.
Actor	Patient (Main Actor), System (Supporting Actor)
Preconditions	- The patient is logged into their account. - The patient has previously submitted a review. - The review still exists and hasn't been removed by the admin. - The system allows editing or deletion within policy limits (e.g., within 30 days of posting).
Main Flow	**Navigation:** 1. The Patient navigates to "My Reviews" or "Session History." 2. The System displays a list of submitted reviews. **Editing Review:** 3. The Patient clicks the "Edit" button next to a review. 4. The System opens the review text for editing. 5. The Patient updates the content and clicks "Save Changes." 6. The System validates the new content and updates the review. 7. The System displays: "Your review has been updated successfully." **Deleting Review:** 8. The Patient clicks the "Delete" button next to a review. 9. The System displays a confirmation message: "Are you sure you want to delete this review?" 10. The Patient confirms deletion. 11. The System removes the review and displays: "Your review has been deleted."
Alternate Flow	**A1 – Edit Timeout (Step 3–5):** If the editing window has expired (e.g., 30 days after posting), the system displays: "You can no longer edit this review." **A2 – Offensive Content (Step 6):** If the new content violates platform policy, the system rejects it and displays: "Your review contains inappropriate content. Please revise." **A3 – System Error (Step 6 or 11):** If an error occurs while saving or deleting, the system displays: "An error occurred. Please try again later."
Postconditions	- The edited or deleted review is updated in the database. - The therapist's profile reflects the change (review updated or removed). - The patient sees confirmation that their action was successful.

9. APPENDICES

APPENDIX A: GLOSSARY

Term	Definition
Alias	A non-identifying username used by patients to maintain anonymity
Availability Slot	A time period during which a therapist is available for appointments
BABOK	Business Analysis Body of Knowledge (IIBA)
BDD	Behavior-Driven Development (Given-When-Then format)
DoD	Definition of Done
DoR	Definition of Ready
DPO	Data Protection Officer
EMH	Electronic Mental Health
INVEST	Independent, Negotiable, Valuable, Estimable, Small, Testable (user story criteria)
KPI	Key Performance Indicator
MVP	Minimum Viable Product
NFR	Non-Functional Requirement
NGO	Non-Governmental Organization
PDPL	Personal Data Protection Law (Egypt Law 151/2020)
RPO	Recovery Point Objective
RTO	Recovery Time Objective
RTM	Requirements Traceability Matrix
SLA	Service Level Agreement
SLO	Service Level Objective
SOS	Emergency support escalation feature
SPD	Sensitive Personal Data
TLS	Transport Layer Security
WCAG	Web Content Accessibility Guidelines
WSJF	Weighted Shortest Job First (prioritization method)

APPENDIX B: ACRONYMS

- **API:** Application Programming Interface
- **CDN:** Content Delivery Network
- **CSV:** Comma-Separated Values
- **HTTPS:** Hypertext Transfer Protocol Secure
- **JSON:** JavaScript Object Notation
- **JWT:** JSON Web Token
- **RBAC:** Role-Based Access Control
- **REST:** Representational State Transfer
- **SDK:** Software Development Kit
- **SMS:** Short Message Service
- **UI:** User Interface
- **UML:** Unified Modeling Language
- **UTC:** Coordinated Universal Time
- **XSS:** Cross-Site Scripting

APPENDIX C: REQUIREMENTS TRACEABILITY

A separate Requirements Traceability Matrix (RTM) document maintains bidirectional traceability:

- Business Requirements (BR) → Functional Requirements (FR) / Non-Functional Requirements (NFR)
- Functional Requirements → Use Cases → Design Components → Test Cases
- Non-Functional Requirements → Architecture Decisions → Verification Methods

RTM Maintenance:

- Updated during each sprint refinement
- Reviewed for completeness before release
- Coverage target: 100% of requirements traced to ≥1 test case

APPENDIX E: CHANGE LOG

Version	Date	Author	Changes
1.0	2025-10-15	BA Team	Initial draft SRS based on Business Analysis Plan v1.1 and use case documents

APPENDIX F: APPROVAL SIGNATURES

Role	Name	Signature	Date
Sponsor			
Product Owner			
Project Manager			
BA Lead			
Tech Lead			
QA Lead			
Legal/Compliance			