

2025

Career Route - System Requirements Specification

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BUSINESS RULES

| ID | Business Rule | Description |
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| BR-01 | Only verified mentors can accept or conduct sessions. | Ensures the authenticity and quality of mentors. |
| BR-02 | A mentee must have a complete profile before requesting sessions. | AI matching requires data such as goals and interests. |
| BR-03 | A mentee can request a maximum of 3 active sessions per week. | Prevents system abuse and ensures fair mentor access. |
| BR-04 | Mentors must define their availability schedule before being matched. | Keeps AI matching accurate and prevents scheduling conflicts. |
| BR-05 | The AI engine must recommend at least 3 mentors with a compatibility score $\geq 70\%$. | Guarantees quality matching and user choice. |
| BR-06 | Mentors can reject or reschedule session requests within 24 hours. | Improves scheduling flexibility. |
| BR-07 | A session cannot be canceled within 2 hours of its start time. | Avoids last-minute disruptions. |
| BR-08 | Both mentor and mentee must confirm session completion for feedback to be enabled. | Ensures valid feedback data. |
| BR-09 | Feedback must be submitted within 48 hours of session completion. | Keeps analytics accurate and timely. |
| BR-10 | Ratings must be between 1 and 5 stars. | Maintains uniform scoring scale. |
| BR-11 | Users must verify their email before accessing the platform. | Prevents fake or duplicate accounts. |
| BR-12 | Admins can deactivate accounts inactive for over 90 days. | Maintains platform hygiene. |
| BR-13 | Notification must be sent on major events: session acceptance, cancellation, or new recommendation. | Keeps users informed in real-time. |
| BR-14 | AI algorithm re-trains every 30 days based on feedback data. | Ensure recommendations stay up to date. |
| BR-15 | Admin can generate monthly reports for system usage and satisfaction scores. | Supports performance tracking and decisions. |

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| BR-16 | Users cannot message others unless they have an approved session connection. | Prevents spam and privacy breaches. |
| BR-17 | All passwords must be stored using encryption. | Ensures security and data protection compliance. |
| BR-18 | Admin actions (create, update, delete user/session) must be logged. | Maintains auditability. |
| BR-19 | Mentors with an average rating below 3.0 may be flagged for review. | Maintains platform quality. |
| BR-20 | Session history and feedback must be retained for at least 12 months. | Supports analytics and compliance. |

FEATURES & USE CASES

Admin Features

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| Feature Code | A01 |
| Name | Admin Mentor Review & Approval |
| Description | The system allows Admins to review and approve new mentor registrations, including document verification and identity validation. |
| Preconditions | <ul style="list-style-type: none"> - Admin is logged in. - Mentor has completed the registration process. - Required documents are uploaded by the Mentor. |
| Main Flow | <ol style="list-style-type: none"> 1. Admin navigates to the “Mentor Approval” section. 2. System displays a list of new Mentor registrations. 3. Admin reviews the Mentor's profile and uploads documents. 4. Admin verifies the Mentor's identity and credentials. 5. Admin clicks “Approve” to approve or “Reject” to decline. 6. If approved, the Mentor is notified via email, and their account is activated. |
| Alternate Flows | <p>A1 – Missing Documents (Step 3):</p> <ul style="list-style-type: none"> - System displays: "Please upload the missing documents." <p>A2 – Verification Failed (Step 4):</p> <ul style="list-style-type: none"> - System displays: "The documents could not be verified. Please try again." |
| Postconditions | <ul style="list-style-type: none"> - Mentor is approved and can access the platform. - If rejected, Mentor receives a rejection email and cannot log in. |

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| Feature Code | A02 |
| Name | Admin Manage Mentor Profile Status |
| Description | The system allows Admins to suspend, reject, or reactivate mentor accounts and manage profile status. |
| Preconditions | <ul style="list-style-type: none"> - Admin is logged in. - Mentor's account is already registered. |
| Main Flow | <ol style="list-style-type: none"> 1. Admin navigates to the “Manage Mentor Profiles” page. 2. Admin selects the Mentor profile to update. |

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| | <p>3. Admin clicks on “Suspend”, “Reject”, or “Reactivate” based on the status update.</p> <p>4. System updates the Mentor’s status accordingly.</p> <p>5. The Mentor is notified about the status change.</p> |
| Alternate Flows | <p>A1 – Invalid Action (Step 3):</p> <ul style="list-style-type: none"> - System displays: "Action cannot be completed due to system error." <p>A2 – Unauthorized Action (Step 3):</p> <ul style="list-style-type: none"> - System displays: "You are not authorized to perform this action." |
| Postconditions | <ul style="list-style-type: none"> - Mentor’s account status is updated. - Mentor receives a notification of the status change. |

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| Feature Code | A03 |
| Name | Admin Manage Specialization Categories |
| Description | The system allows Admins to manage specialization categories, pricing guidelines, and session duration policies. |
| Preconditions | <ul style="list-style-type: none"> - Admin is logged in. - Admin has permission to manage categories and policies. |
| Main Flow | <ol style="list-style-type: none"> 1. Admin navigates to the “Manage Categories” section. 2. Admin adds new categories (e.g., IT, Marketing, Finance) or edits existing ones. 3. Admin sets pricing guidelines and session duration policies. 4. Admin saves the changes. |
| Alternate Flows | <p>A1 – Invalid Category Name (Step 2):</p> <ul style="list-style-type: none"> - System displays: "Category name cannot be empty." <p>A2 – Pricing Invalid (Step 3):</p> <ul style="list-style-type: none"> - System displays: "Pricing must be a positive value." |
| Postconditions | <ul style="list-style-type: none"> - Specialization categories, pricing guidelines, and session durations are updated. - New categories are available for Mentor profile selection. |

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| Feature Code | A04 |
| Name | Admin Monitor Booking Activities |
| Description | The system allows Admins to monitor booking activities, cancellations, and disputes between mentors and mentees. |
| Preconditions | <ul style="list-style-type: none"> - Admin is logged in. - Bookings, cancellations, and disputes are active. |

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| Main Flow | <ol style="list-style-type: none"> 1. Admin navigates to the “Booking Dashboard”. 2. Admin views a list of active bookings, cancellations, and disputes. 3. Admin filters the data by date, mentor, or mentee. 4. Admin resolves disputes or escalates them if necessary. |
| Alternate Flows | <p>A1 – No Data Found (Step 2):</p> <ul style="list-style-type: none"> - System displays: "No bookings, cancellations, or disputes found." |
| Postconditions | <ul style="list-style-type: none"> - Admin has visibility over all booking activities. - Any disputes are resolved or escalated for further review. |

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| Feature Code | A05 |
| Name | Admin Oversee Payment Transactions |
| Description | The system allows Admins to oversee payment transactions, commission deductions (15%), and refund requests. |
| Preconditions | <ul style="list-style-type: none"> - Admin is logged in. - Payment transactions are processed and recorded. |
| Main Flow | <ol style="list-style-type: none"> 1. Admin navigates to the “Payment Overview” section. 2. Admin reviews all payments, including amounts, commission deductions, and refunds. 3. Admin can initiate or approve refund requests. |
| Alternate Flows | <p>A1 – No Payment Data (Step 2):</p> <ul style="list-style-type: none"> - System displays: "No transactions found." |
| Postconditions | <ul style="list-style-type: none"> - Payment transactions, commissions, and refunds are recorded and updated in the system. - Admin can process or approve refund requests. |

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| Feature Code | A06 |
| Name | Admin View Platform Analytics |
| Description | The system allows Admins to view platform analytics, including user growth, revenue reports, and engagement metrics. |
| Preconditions | <ul style="list-style-type: none"> - Admin is logged in. - Analytics data has been collected and processed. |
| Main Flow | <ol style="list-style-type: none"> 1. Admin navigates to the “Analytics Dashboard”. 2. Admin can view various data points, including: <ul style="list-style-type: none"> - Total number of active users (Mentors and Mentees) |

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| | <ul style="list-style-type: none"> - Monthly revenue and profit - User engagement metrics (session frequency, cancellations) <p>3. Admin can filter the data by time period (weekly, monthly, etc.).</p> <p>4. Admin can export the data as a report.</p> |
| Alternate Flows | <p>A1 – No Data Found (Step 2):</p> <ul style="list-style-type: none"> - System displays: "No analytics data available for the selected period." <p>A2 – Data Export Failure (Step 4):</p> <ul style="list-style-type: none"> - System displays: "Data export failed. Please try again later." |
| Postconditions | <ul style="list-style-type: none"> - Admin can view detailed platform analytics. - Admin can export reports for further analysis. |

| Feature Code | A07 |
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| Name | Admin Send Notifications |
| Description | The system enables Admins to send notifications and announcements to mentors and mentees (e.g., account updates, policy changes). |
| Preconditions | <ul style="list-style-type: none"> - Admin is logged in. - Notification content is ready to be sent. |
| Main Flow | <ol style="list-style-type: none"> 1. Admin navigates to the “Notifications” section. 2. Admin creates a new notification message, selecting the target audience (Mentors, Mentees, or both). 3. Admin selects the delivery method (email, push notification, or both). 4. Admin clicks Send. 5. The system sends notifications to the selected users. |
| Alternate Flows | <p>A1 – Invalid Notification Content (Step 2):</p> <ul style="list-style-type: none"> - System displays: "Notification content cannot be empty." |
| Postconditions | <ul style="list-style-type: none"> - Notifications are successfully sent to the target users. - Admin receives a confirmation message that the notifications were delivered. |

| Feature Code | A08 |
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| Name | Admin Manage AI Flag Reports |
| Description | The system allows Admins to manage AI flag reports, reviewing mentor profiles marked for data inconsistency or low quality. |
| Preconditions | <ul style="list-style-type: none"> - Admin is logged in. - The AI system has flagged mentor profiles for review. |
| Main Flow | <ol style="list-style-type: none"> 1. Admin navigates to the “AI Flag Reports” section. 2. Admin views a list of flagged profiles with issues identified by the AI system. 3. Admin reviews the flagged profiles for inconsistencies or low quality. |

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| | <p>4. Admin takes action: either approve, update, or suspend the mentor's account.</p> <p>5. Admin confirms the action.</p> |
| Alternate Flows | <p>A1 – No Flags Found (Step 2):</p> <ul style="list-style-type: none"> - System displays: "No profiles flagged for review." |
| Postconditions | <ul style="list-style-type: none"> - Admin resolves flagged mentor profiles. - Mentor profile status is updated based on the Admin's action. |

| Feature Code | A09 |
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| Name | Admin Onboard Mentors via Import Templates |
| Description | The system allows Admins to onboard new categories or bulk upload verified mentors using import templates. |
| Preconditions | <ul style="list-style-type: none"> - Admin is logged in. - Admin has access to the import template. |
| Main Flow | <ol style="list-style-type: none"> 1. Admin navigates to the “Bulk Upload” section. 2. Admin downloads the import template file. 3. Admin fills in the mentor details in the template (name, expertise, certification, pricing, etc.). 4. Admin uploads the completed template. 5. System processes the data and adds the mentors to the platform. 6. Admin receives a confirmation message if the import is successful. |
| Alternate Flows | <p>A1 – Invalid Template Format (Step 3):</p> <ul style="list-style-type: none"> - System displays: "Template format is invalid. Please download the correct template." |
| Postconditions | <ul style="list-style-type: none"> - Mentors are successfully added in bulk. - Mentors are notified about their registration and profile activation. |

| Feature Code | A10 |
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| Name | Admin Audit Logs |
| Description | The system provides Admins with audit logs to track profile updates, payment actions, and approval histories. |
| Preconditions | <ul style="list-style-type: none"> - Admin is logged in. - The system has tracked user actions. |
| Main Flow | <ol style="list-style-type: none"> 1. Admin navigates to the “Audit Logs” section. 2. Admin can filter logs by action type (profile update, payment, approval). 3. Admin selects a time period to review logs (daily, weekly, monthly). 4. Admin views the detailed action logs for the selected time period. 5. Admin can export logs if needed. |

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| Alternate Flows | A1 – No Logs Available (Step 2): - System displays: "No logs available for the selected criteria." |
| Postconditions | - Admin views detailed logs of user actions. - Admin can export or print the logs for record-keeping. |

Mentor Features

| Feature Code | FEAT11 |
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| Name | Mentor Registration |
| Description | The system allows Mentors to register using personal and professional information, including name, email, password, and country. |
| Preconditions | - The Mentor is not already registered. - The system is online and accessible. The registration page is available. |
| Main Flow | 1. Mentor navigates to the “Register” page. 2. Mentor enters required details: Name, Email, Password, and Country. 3. Mentor clicks Submit. 4. System validates the information and registers the Mentor. |
| Alternate Flows | A1 – Invalid Email Format (Step 2): - System displays: "Please enter a valid email address." A2 – Password Requirements Not Met (Step 2): - System displays: "Password must be at least 8 characters and include both letters and numbers." |
| Postconditions | - Mentor account is created. - Mentor receives a verification email. |

| Feature Code | FEAT12 |
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| Name | Mentor Document Upload for Admin Verification |
| Description | The system allows Mentors to upload required documents (certifications, ID, experience proof) for admin verification. |
| Preconditions | - Mentor has registered on the platform. - The system is online and accessible. |
| Main Flow | 1. Mentor navigates to the “Upload Documents” page. 2. Mentor uploads required documents: Certification, ID, and Experience proof. 3. Mentor clicks Submit. 4. System verifies document types and sizes. 5. Admin receives the document for verification. |
| Alternate Flows | A1 – Invalid File Type (Step 2): - System displays: "Invalid file type. Please upload a PDF or image file." |

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| | A2 – File Too Large (Step 2): - System displays: "File size exceeds the limit. Please upload a smaller file." |
| Postconditions | - Mentor documents are uploaded and pending admin verification. |

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| Feature Code | FEAT13 |
| Name | Mentor Email Verification |
| Description | The system enables Mentors to verify their email and await admin approval before accessing their dashboards. |
| Preconditions | - Mentor has successfully registered. - System sends a verification email. |
| Main Flow | 1. Mentor receives a verification email with a confirmation link. 2. Mentor clicks the confirmation link. 3. System verifies the email and activates the Mentor account. 4. Mentor is notified that their account is now verified. |
| Alternate Flows | A1 – Email Link Expired (Step 2): - System displays: "The verification link has expired. Please request a new one." A2 – Verification Failed (Step 3): - System displays: "Verification failed. Please try again later." |
| Postconditions | - Mentor email is verified. - Mentor receives an email confirming account verification. |

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| Feature Code | FEAT14 |
| Name | Mentor Secure Login |
| Description | The system allows Mentors to log in securely after approval and manage their profiles. |
| Preconditions | - Mentor is registered and verified. - Mentor has a valid password. |
| Main Flow | 1. Mentor navigates to the "Login" page. 2. Mentor enters Email and Password. 3. Mentor clicks Login. 4. System verifies credentials. 5. If valid, Mentor is redirected to the Dashboard. |
| Alternate Flows | A1 – Invalid Email Format (Step 2): - System displays: "Please enter a valid email address." A2 – Incorrect Password (Step 3): - System displays: "Incorrect password. Please try again." |
| Postconditions | - Mentor is logged in. |

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| | - Mentor has access to the dashboard for profile management. |
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| Feature Code | FEAT15 |
| Name | Mentor Profile Management |
| Description | The system allows Mentors to build a professional profile with expertise, bio, pricing, and languages for mentee discovery. |
| Preconditions | <ul style="list-style-type: none"> - Mentor is logged in. - Mentor has verified their email. |
| Main Flow | <ol style="list-style-type: none"> 1. Mentor navigates to the “Profile Management” page. 2. Mentor enters personal and professional details: - Expertise - Bio - Pricing - Languages 3. Mentor clicks Save. 4. System stores the profile details and updates the Mentor profile. |
| Alternate Flows | <p>A1 – Missing Required Fields (Step 2):</p> <ul style="list-style-type: none"> - System displays: "Please fill in all mandatory fields." <p>A2 – Invalid Pricing (Step 2):</p> <ul style="list-style-type: none"> - System displays: "Please enter a valid price range." |
| Postconditions | <ul style="list-style-type: none"> - Mentor profile is successfully updated. - Mentee can view Mentor’s profile in search results. |

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| Feature Code | FEAT16 |
| Name | Mentor Availability Schedule Management |
| Description | The system allows Mentors to manage their availability schedules, defining open and blocked time slots for booking. |
| Preconditions | <ul style="list-style-type: none"> - Mentor is logged in. - Mentor has access to the schedule management feature. |
| Main Flow | <ol style="list-style-type: none"> 1. Mentor navigates to the “Availability” section. 2. Mentor defines available time slots (open) and blocks non-available slots. 3. Mentor clicks Save. 4. System updates the availability and displays it in the Mentor’s profile. |
| Alternate Flows | <p>A1 – Overlapping Availability (Step 2):</p> <ul style="list-style-type: none"> - System displays: "Time slot overlaps with an existing session. Please choose a different time." |
| Postconditions | <ul style="list-style-type: none"> - Mentor’s availability is updated. - Mentees can book sessions during available time slots. |

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| Feature Code | FEAT17 |
| Name | Mentor Session Management |
| Description | The system allows Mentors to view and manage upcoming and past mentorship sessions, including rescheduling and cancellations. |
| Preconditions | <ul style="list-style-type: none"> - Mentor is logged in. - Mentor has upcoming or past sessions. |
| Main Flow | <ol style="list-style-type: none"> 1. Mentor navigates to the “Session Management” page. 2. Mentor views upcoming and past sessions. 3. Mentor can reschedule or cancel a session. 4. Mentor clicks Save. 5. System updates the session details and notifies the Mentee. |
| Alternate Flows | A1 – Invalid Session Details (Step 3): <ul style="list-style-type: none"> - System displays: "Invalid session details. Please try again." |
| Postconditions | <ul style="list-style-type: none"> - Sessions are rescheduled or canceled. - Mentee is notified of changes. |

Mentee Features

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| Feature Code | FEAT23 |
| Name | Mentee Registration & Verification |
| Description | The system allows Mentees to register and verify their accounts using email and password. |
| Preconditions | <ul style="list-style-type: none"> - The system is online and accessible. - The Mentee does not already have an account. - Registration page is available. |
| Main Flow | <ol style="list-style-type: none"> 1. Mentee navigates to the Register page. 2. Mentee enters required details: - Full Name, Email, Password. 3. Mentee clicks on Submit. 4. System validates the email format and password requirements. 5. System sends a verification email with a confirmation link. 6. Mentee clicks the verification link. 7. System verifies the email and confirms the account. |
| Alternate Flows | A1 – Invalid Email Format (Step 4): <ul style="list-style-type: none"> - If the email is not in the correct format, the system displays: “Please enter a valid email address.” A2 – Password Requirements Not Met (Step 4): <ul style="list-style-type: none"> - If the password is too weak, the system displays: “Password must be at least 8 characters and include both letters and numbers.” |

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| | <p>A3 – Email Already Registered (Step 5):</p> <ul style="list-style-type: none"> - If the email is already registered, the system displays: "Email already exists. Please log in." |
| Postconditions | <ul style="list-style-type: none"> - The mentee account is created and stored in the system. - Mentee receives a verified account status and can log in. |

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| Feature Code | FEAT24 |
| Name | Mentee Login |
| Description | The system allows Mentees to log in securely using verified credentials. |
| Preconditions | <ul style="list-style-type: none"> - The Mentee is already registered with a verified email. - The system is online and accessible. - The login page is available. |
| Main Flow | <ol style="list-style-type: none"> 1. Mentee navigates to the Login page. 2. Mentee enters Email and Password. 3. Mentee clicks Login. 4. System verifies credentials (Email + Password). 5. If valid, the system redirects the Mentee to the Dashboard. |
| Alternate Flows | <p>A1 – Invalid Email Format (Step 2):</p> <ul style="list-style-type: none"> - System displays: "Please enter a valid email address." <p>A2 – Incorrect Password (Step 3):</p> <ul style="list-style-type: none"> - System displays: "Incorrect password. Please try again." <p>A3 – Email Not Registered (Step 3):</p> <ul style="list-style-type: none"> - System displays: "No account found with this email." |
| Postconditions | <ul style="list-style-type: none"> - Mentee is logged in and redirected to the Dashboard. - A session is created for the Mentee. |

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| Feature Code | FEAT23 |
| Name | Mentee Profile Creation |
| Description | The system allows Mentees to create a personal profile specifying goals, career interests, and preferred session types. |
| Preconditions | <ul style="list-style-type: none"> -The Mentee is logged in with a verified account. -The Profile Creation page is accessible. |
| Main Flow | <p>A1 – Missing Required Fields (Step 2): System displays: "Please fill in all mandatory fields."</p> <p>A2 – Invalid Data Format (Step 2): System displays: "Please provide valid input in career goals or interests."</p> |

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| Alternate Flows | Mentee profile is successfully created and stored in the system. The Mentee's preferences are saved for future mentor matching. |
| Postconditions | - Mentee can open its account |

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| Feature Code | FEAT26 |
| Name | Mentee Search and Mentor AI Recommendations |
| Description | The system enables Mentees to search and filter mentors using AI-powered recommendations based on expertise, language, and compatibility. |
| Preconditions | - Mentee is logged in with a complete profile. - The AI mentor matching system is functional. |
| Main Flow | <ol style="list-style-type: none"> 1. Mentee clicks on "Find a Mentor". 2. System prompts the Mentee to specify search criteria: <ul style="list-style-type: none"> - Expertise – Language - Mentor's availability 3. The system uses AI to recommend mentors based on the Mentee's profile and preferences. 4. Mentee views a list of recommended mentors. |
| Alternate Flows | A1 – No Mentors Found (Step 3): - System displays: "No mentors match your criteria. Please try broadening your preferences." A2 – AI Processing Error (Step 3): - System displays: "An error occurred while processing your preferences. Please try again later." |
| Postconditions | - Mentee sees a list of recommended mentors based on their preferences. - The mentee can select a mentor to proceed with booking a session. |

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| Feature Code | FEAT27 |
| Name | Browse Mentor Profiles |
| Description | The system allows Mentees to browse mentor profiles by category, specialization, pricing, and rating. |
| Preconditions | - Mentee is logged in. - Mentor profiles are available. |
| Main Flow | <ol style="list-style-type: none"> 1. Mentee navigates to the Browse Mentors page. 2. Mentee can filter mentors by: - Category (e.g., IT, Design) - Specialization - Price - Ratings |
| Alternate Flows | A1 – No Results Found (Step 2): - System displays: "No mentors found matching your search." |
| Postconditions | - Mentee is presented with a list of filtered mentors based on selected criteria. |

| Feature Code | FEAT28 |
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| Name | Mentee Booking Mentorship Sessions |
| Description | The system allows Mentees to book mentorship sessions (1-on-1 or group) by selecting available time slots. |
| Preconditions | <ul style="list-style-type: none"> - Mentee is logged in. - Mentee has chosen a mentor. - The mentor's availability is visible and up-to-date. |
| Main Flow | <ol style="list-style-type: none"> 1. Mentee selects a mentor from the recommended or browsed mentor list. 2. Mentee chooses the type of session (1-on-1 or group). 3. The system displays available time slots for the mentor. 4. Mentee selects a time slot and proceeds to the booking page. 5. System shows the session details (mentor, time, session type). 6. Mentee clicks "Book Session" to confirm. |
| Alternate Flows | <p>A1 – No Available Time Slots (Step 3): - System displays: "No available time slots for this mentor at the selected time."</p> <p>A2 – Invalid Session Type (Step 4): - System displays: "Please select a valid session type (1-on-1 or group)."</p> |
| Postconditions | <ul style="list-style-type: none"> - Mentee successfully books a session. - Session details (time, mentor, session type) are added to the Mentee's upcoming sessions list. |

| Feature Code | FEAT29 |
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| Name | Mentee Payment and Receipt Generation |
| Description | The system allows Mentees to complete payments via Stripe or Paymob, with automatic receipt generation. |
| Preconditions | <ul style="list-style-type: none"> - Mentee is logged in. - Session booking has been confirmed. - The payment gateway (Stripe/Paymob) is active and integrated. |
| Main Flow | <ol style="list-style-type: none"> 1. Mentee proceeds to the payment page after booking a session. 2. System displays the session details (session price, platform commission, total). 3. Mentee selects a payment method (Stripe or Paymob). 4. Mentee enters payment information (card details, wallet). 5. System processes the payment through the selected gateway. 6. If payment is successful, the system generates an invoice and sends it to the Mentee's email. 7. System displays a confirmation message: "Payment successful. Your session is confirmed." |
| Alternate Flows | <p>A1 – Payment Failed (Step 5): - System displays: "Payment failed. Please check your payment details and try again."</p> |

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| | A2 – Payment Gateway Timeout (Step 5): - System displays: “The payment gateway is currently unavailable. Please try again later.” |
| Postconditions | <ul style="list-style-type: none"> - Mentee’s payment is processed successfully. - Mentee receives an email receipt, and the session is confirmed. |

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| Feature Code | FEAT30 |
| Name | Mentee Join Mentorship Session |
| Description | The system allows Mentees to join mentorship sessions through integrated Zoom links. |
| Preconditions | <ul style="list-style-type: none"> - Mentee is logged in. - Session is confirmed and scheduled. - The Zoom meeting link is generated by the system. |
| Main Flow | <ol style="list-style-type: none"> 1. Mentee logs in and navigates to My Sessions. 2. Mentee selects the upcoming session they wish to join. 3. System displays the Zoom link and session details (time, mentor). 4. Mentee clicks on the Zoom link to join the session. 5. System redirects the Mentee to the Zoom meeting room. |
| Alternate Flows | <p>A1 – Zoom Link Expired (Step 3):</p> <ul style="list-style-type: none"> - System displays: “The session link has expired. Please contact your mentor for a new link.” <p>A2 – Connection Issues (Step 5):</p> <ul style="list-style-type: none"> - System displays: “Unable to connect to Zoom. Please check your internet connection and try again.” |
| Postconditions | <ul style="list-style-type: none"> - Mentee joins the Zoom meeting successfully. - The system updates the session status to “In Progress”. |

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| Feature Code | FEAT31 |
| Name | Mentee Post-Session Communication |
| Description | The system allows Mentees to communicate with mentors through a 72-hour post-session chat window. |
| Preconditions | <ul style="list-style-type: none"> - Mentee and Mentor have completed the session. - The session is marked as “Completed” in the system. |
| Main Flow | <ol style="list-style-type: none"> 1. After the session ends, the Mentee navigates to the Post-Session Communication tab. 2. The mentee can send messages and files to the Mentor within 72 hours. 3. System shows the Chat Window with the previous session’s details. |
| Alternate Flows | <p>A1 – Chat Window Closed (Step 2):</p> <ul style="list-style-type: none"> - System displays: The chat window is no longer available as the 72-hour period has expired. <p>A2 – File Upload Limit Exceeded (Step 3):</p> |

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| | - System displays: “File size exceeds the limit. Please upload smaller files.” |
| Postconditions | Mentee and Mentor can communicate until the 72-hour period expires. System records and stores the chat history for the session. |

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| Feature Code | FEAT32 |
| Name | Mentee Rating and Review of Mentors |
| Description | The system allows Mentees to rate and review mentors after the session completion. |
| Preconditions | <ul style="list-style-type: none"> - Mentee has completed a session with a Mentor. - Session status is “Completed”. |
| Main Flow | <ol style="list-style-type: none"> 1. Mentee navigates to the Completed Sessions page. 2. Mentee selects the session they want to rate. 3. The system prompts the Mentee to provide a rating (1-5 stars) and write a review. 4. Mentee clicks Submit Review. 5. System validates the review and stores it. |
| Alternate Flows | <p>A1 – No Rating Provided (Step 3):</p> <ul style="list-style-type: none"> - System displays: “Please provide a rating before submitting.” <p>A2 – Review Length Issue (Step 3):</p> <ul style="list-style-type: none"> - System displays: “Review must be at least 20 characters long.” |
| Postconditions | <ul style="list-style-type: none"> - The Mentee’s rating and review are stored in the system. - The Mentor’s profile is updated with the new review. |

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| Feature Code | FEAT33 |
| Name | Mentee Session Notifications |
| Description | The system notifies Mentees of upcoming sessions, booking confirmations, and session reminders. |
| Preconditions | <ul style="list-style-type: none"> - Mentee is logged in. - Mentee has upcoming sessions scheduled. - Notification settings are enabled. |
| Main Flow | <ol style="list-style-type: none"> 1. The system generates a reminder notification 24 hours before the session starts time. 2. Mentee receives an email and push notification (if the app is installed) with session details. 3. A second reminder is sent 1 hour before the session. |
| Alternate Flows | <p>A1 – Notification Delivery Failure (Step 2):</p> <ul style="list-style-type: none"> - System displays: “Unable to deliver session reminder. Please check your notification settings.” <p>A2 – Notification Settings Disabled (Step 2):</p> <ul style="list-style-type: none"> - System displays: “You have opted out of notifications. Please enable them in settings.” |
| Postconditions | <ul style="list-style-type: none"> - Mentee receives notifications for the upcoming session. - Mentee is reminded before the session to ensure they are prepared. |

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| Feature Code | FEAT34 |
| Name | Mentee Session History and Payment Details |
| Description | The system allows Mentees to view their session history, invoices, and payment details. |
| Preconditions | <ul style="list-style-type: none"> - Mentee is logged in. - Mentee has attended at least one session. |
| Main Flow | <ol style="list-style-type: none"> 1. Mentee navigates to the My Sessions page. 2. Mentee clicks on the Session History tab to view all past sessions. 3. System displays a list of sessions with session dates, mentors' names, session types, and ratings. 4. The mentee can click on a specific session to view payment details (invoice, transaction ID, payment method). 5. The mentee can download the invoice as a PDF. |
| Alternate Flows | <p>A1 – No Sessions Found (Step 3):</p> <ul style="list-style-type: none"> - System displays: "You have not completed any sessions yet." <p>A2 – Payment Details Missing (Step 4):</p> <ul style="list-style-type: none"> - System displays: "Payment details are not available for this session." |
| Postconditions | <ul style="list-style-type: none"> - Mentee can access their session history and payment details. - Mentee has the option to download invoices for record-keeping. |

System Features

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| Feature Code | FEAT35 |
| Name | AI-Based Mentor-Mentee Matching |
| Description | The system manages AI-based mentor–mentee matching using profile data and psychometric attributes. |
| Preconditions | <ul style="list-style-type: none"> - The mentor and mentee profiles are complete with expertise, goals, and psychometric data. - The system has access to AI algorithms for matching. |
| Main Flow | <ol style="list-style-type: none"> 1. Mentee enters their goals, career interests, and preferred mentor attributes. 2. The system processes the data with AI algorithms to match Mentees with suitable Mentors. 3. The system provides a personalized Match Score and displays the top matches to the Mentee. 4. Mentee selects a mentor from the list of matches. |
| Alternate Flows | <p>A1 – No Suitable Matches (Step 3):</p> <ul style="list-style-type: none"> - System displays: "No suitable matches found. Please adjust your preferences or try again later." <p>A2 – Profile Incomplete (Step 1):</p> <ul style="list-style-type: none"> - System displays: "Please complete your profile before proceeding." |
| Postconditions | <ul style="list-style-type: none"> - Mentee is matched with a suitable mentor. |

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| | - Match information is saved for future reference. |
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| Feature Code | FEAT36 |
| Name | Secure Payments and Commission Calculation |
| Description | The system handles secure payments and commission calculations (15%) for every completed session. |
| Preconditions | <ul style="list-style-type: none"> - Mentee has successfully booked and completed a session. - Payment gateway integration (Stripe/Paymob) is active. |
| Main Flow | <ol style="list-style-type: none"> 1. The system calculates the session fee based on pricing and duration. 2. The system calculates the platform commission (15%). 3. The system processes the payment securely via Stripe or Paymob. 4. System generates a payment receipt for the Mentee and Mentor. 5. Commission is deducted, and the Mentor receives their payout. |
| Alternate Flows | <p>A1 – Payment Failure (Step 3):</p> <ul style="list-style-type: none"> - System displays: "Payment failed. Please check your details and try again." <p>A2 – Refund Request (Step 5):</p> <ul style="list-style-type: none"> - System processes refunds based on the session cancellation policy. |
| Postconditions | <ul style="list-style-type: none"> - Payment is processed successfully. - Mentor receives payment minus the platform commission. - Mentee receives a payment receipt. |

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| Feature Code | FEAT37 |
| Name | Bilingual User Interface |
| Description | The system supports a bilingual user interface (Arabic-English) throughout all modules. |
| Preconditions | <ul style="list-style-type: none"> - The system supports language settings. - User has selected their preferred language (Arabic/English). |
| Main Flow | <ol style="list-style-type: none"> 1. User selects their preferred language from the settings menu. 2. System loads the interface in the selected language. 3. All modules, notifications, and messages are displayed in the selected language. |
| Alternate Flows | <p>A1 – Language Not Available (Step 1):</p> <ul style="list-style-type: none"> - System displays: "Language not supported. Please select another language." |
| Postconditions | <ul style="list-style-type: none"> - The user interface is displayed in the selected language. - All user interactions, including notifications and messages, are in the selected language. |

| Feature Code | FEAT38 |
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| Name | Email and In-App Notifications |
| Description | The system provides email and in-app notifications for verification, booking, and payment actions. |
| Preconditions | <ul style="list-style-type: none"> - User has enabled email and push notifications. - User actions (e.g., booking, payment) trigger notifications. |
| Main Flow | <ol style="list-style-type: none"> 1. System triggers email notifications upon booking confirmation, session reminders, and payment processing. 2. System sends in-app push notifications for the same actions. 3. Notifications contain session details, payment confirmations, and next steps. |
| Alternate Flows | A1 – Email Delivery Failure (Step 1): <ul style="list-style-type: none"> - System displays: "Unable to send email. Please check your email settings." |
| Postconditions | <ul style="list-style-type: none"> - Mentee receives notifications regarding key actions (booking, payment, reminders). - Notifications are logged in the system. |

| Feature Code | FEAT39 |
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| Name | Comprehensive Audit Logs |
| Description | The system maintains comprehensive audit logs for user actions and admin activities. |
| Preconditions | <ul style="list-style-type: none"> - Admin is logged in. - System has tracked user actions (e.g., logins, session bookings, payments). |
| Main Flow | <ol style="list-style-type: none"> 1. Admin navigates to the Audit Logs section. 2. Admin filters logs by date, user type, and activity type (e.g., booking, payment, approval). 3. Admin views the detailed logs for selected time periods. 4. Admin can export the logs in CSV or PDF format. |
| Alternate Flows | A1 – No Logs Available (Step 2): <ul style="list-style-type: none"> - System displays: "No logs found for the selected filters." |
| Postconditions | <ul style="list-style-type: none"> - Admin has visibility into all tracked user and system activities. - Admin can download or print logs for auditing. |

| Feature Code | FEAT40 |
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| Name | Data Encryption for Security |
| Description | The system ensures data security using encryption for personal, payment, and chat information. |
| Preconditions | <ul style="list-style-type: none"> - All sensitive data is entered (personal details, payment information, chat history). |
| Main Flow | <ol style="list-style-type: none"> 1. The system encrypts sensitive data during input using strong encryption algorithms. 2. Data is securely stored and transmitted using encryption protocols (e.g., TLS/SSL). 3. The system ensures that only authorized users have access to the encrypted data. |
| Alternate Flows | A1 – Encryption Error (Step 1): |

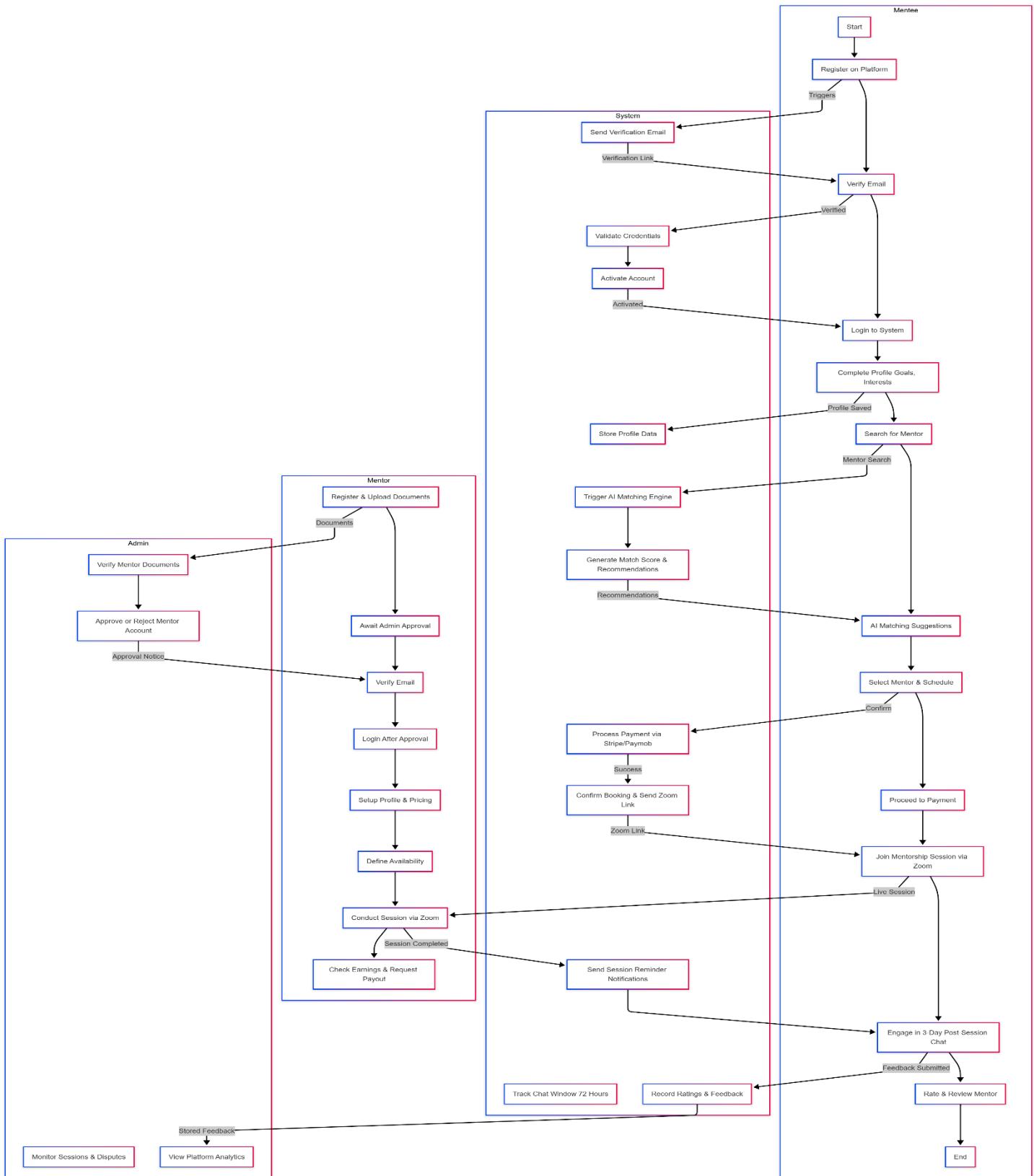
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| | - System displays: "Error encrypting sensitive data. Please try again later." |
| Postconditions | <ul style="list-style-type: none"> - All sensitive data is encrypted during transmission and storage. - Unauthorized access to sensitive data is prevented. |

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| Feature Code | FEAT41 |
| Name | Refund Policy Management |
| Description | The system automatically manages refund policies based on cancellation timelines. |
| Preconditions | <ul style="list-style-type: none"> - Session has been booked and payment has been processed. - A refund request is initiated by the Mentee. |
| Main Flow | <ol style="list-style-type: none"> 1. Mentee requests a refund through the platform after canceling the session. 2. The system checks the cancellation time (before or after policy deadlines). 3. If within policy, the system processes the refund. 4. If outside policy, the system displays a message stating the refund policy. |
| Alternate Flows | <p>A1 – Refund Denied (Step 3):</p> <ul style="list-style-type: none"> - System displays: "Refund request denied. You are outside the refund policy window." |
| Postconditions | <ul style="list-style-type: none"> - Refunds are processed for eligible sessions. - Mentee receives a confirmation of the refund or denial. |

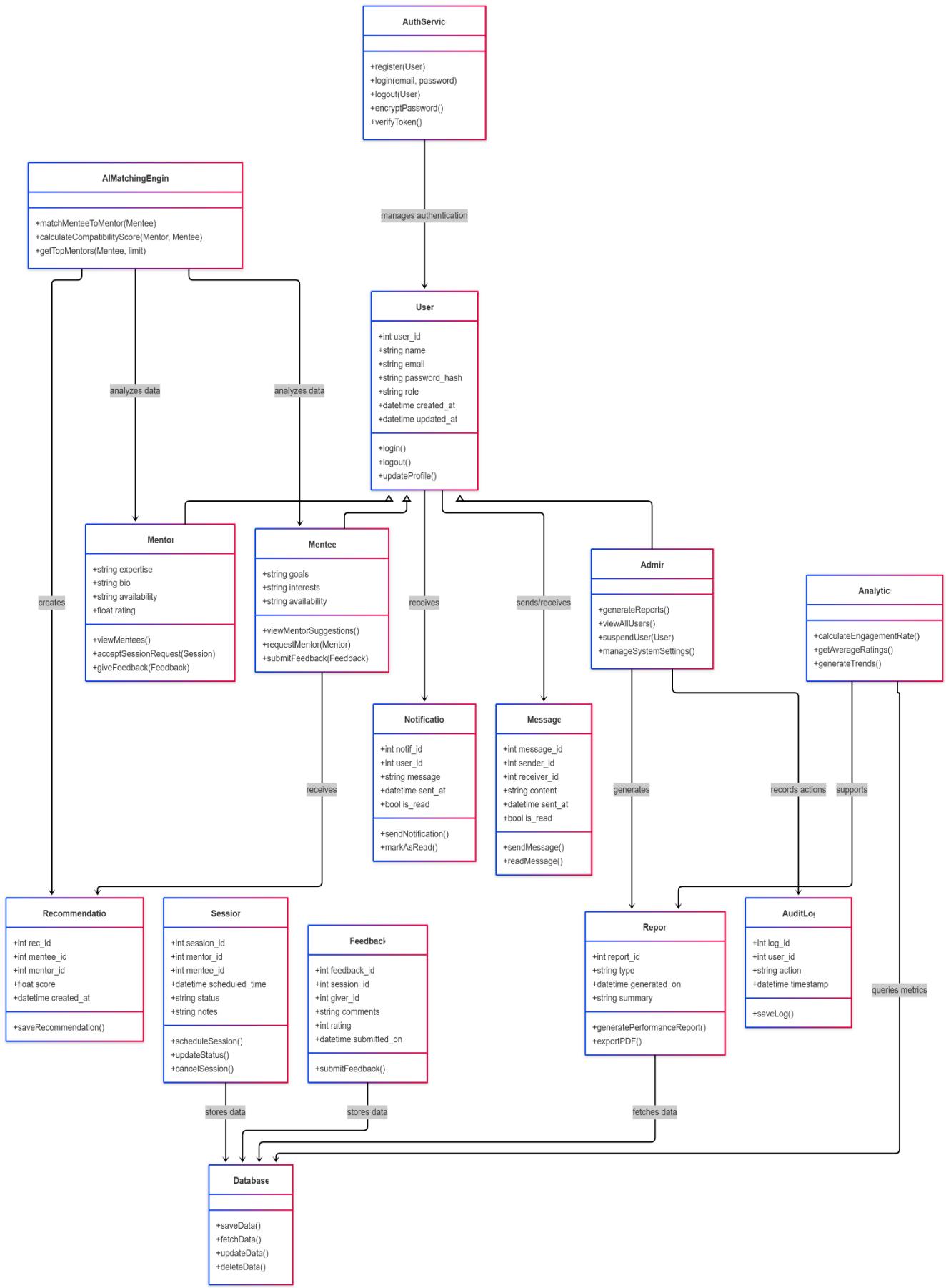
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| Feature Code | FEAT42 |
| Name | Analytics Dashboards |
| Description | The system provides analytics dashboards summarizing mentor performance, mentee activity, and revenue metrics. |
| Preconditions | <ul style="list-style-type: none"> - Admin is logged in. - System collects relevant data on user activity, mentor performance, and payments. |
| Main Flow | <ol style="list-style-type: none"> 1. Admin navigates to the "Analytics Dashboard". 2. System displays graphs and charts summarizing: <ul style="list-style-type: none"> - Mentor performance (sessions completed, ratings) - Mentee activity (bookings, ratings) - Revenue data (total payments, commissions) 3. Admin can filter data by date, user, or other categories. 4. Admin can export dashboard data as a report. |
| Alternate Flows | <p>A1 – No Data Available (Step 2):</p> <ul style="list-style-type: none"> - System displays: "No data available for the selected period." |
| Postconditions | - Admin has visibility over the platform's performance metrics. |

UML MODEL

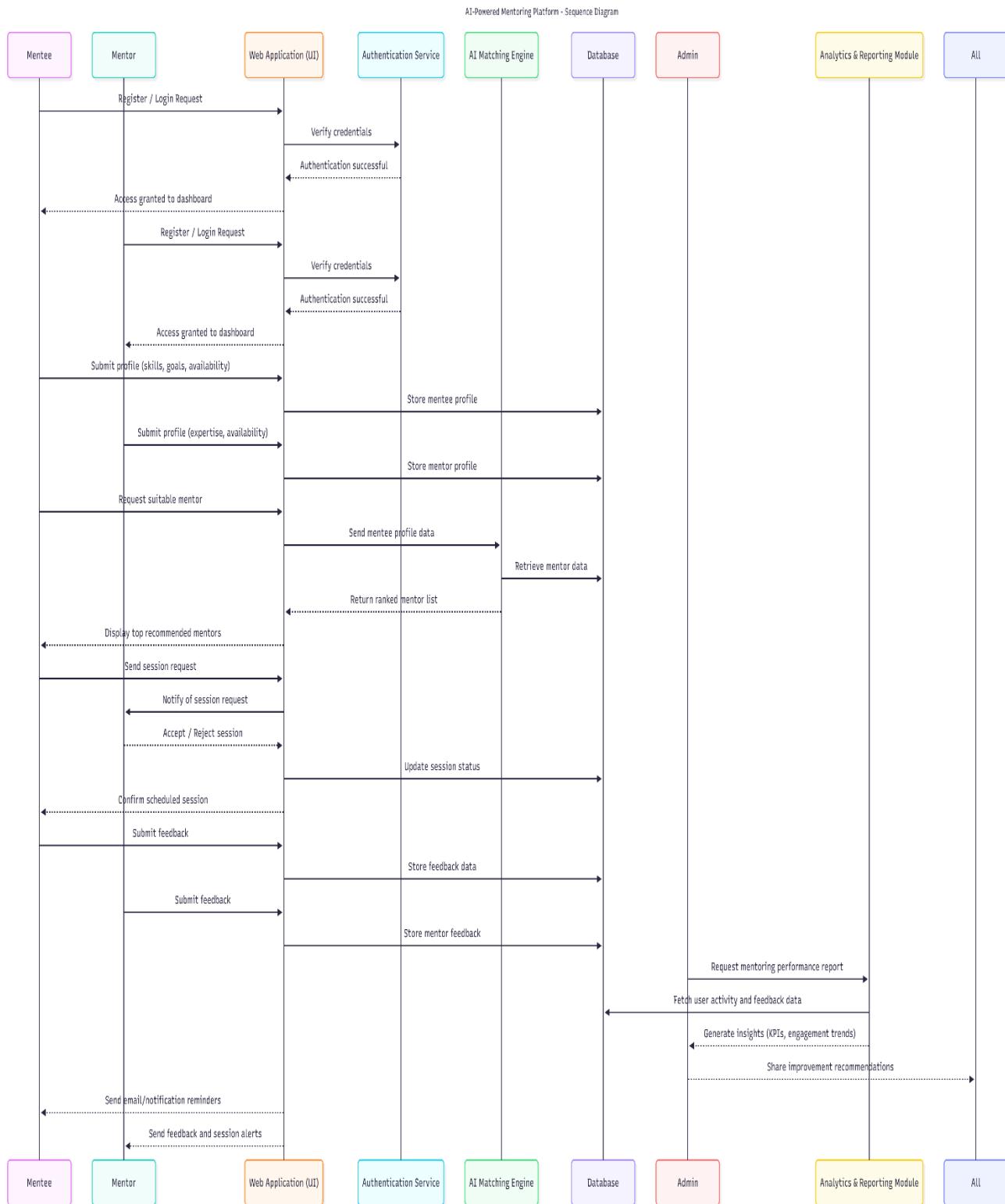
I. Activity Diagram



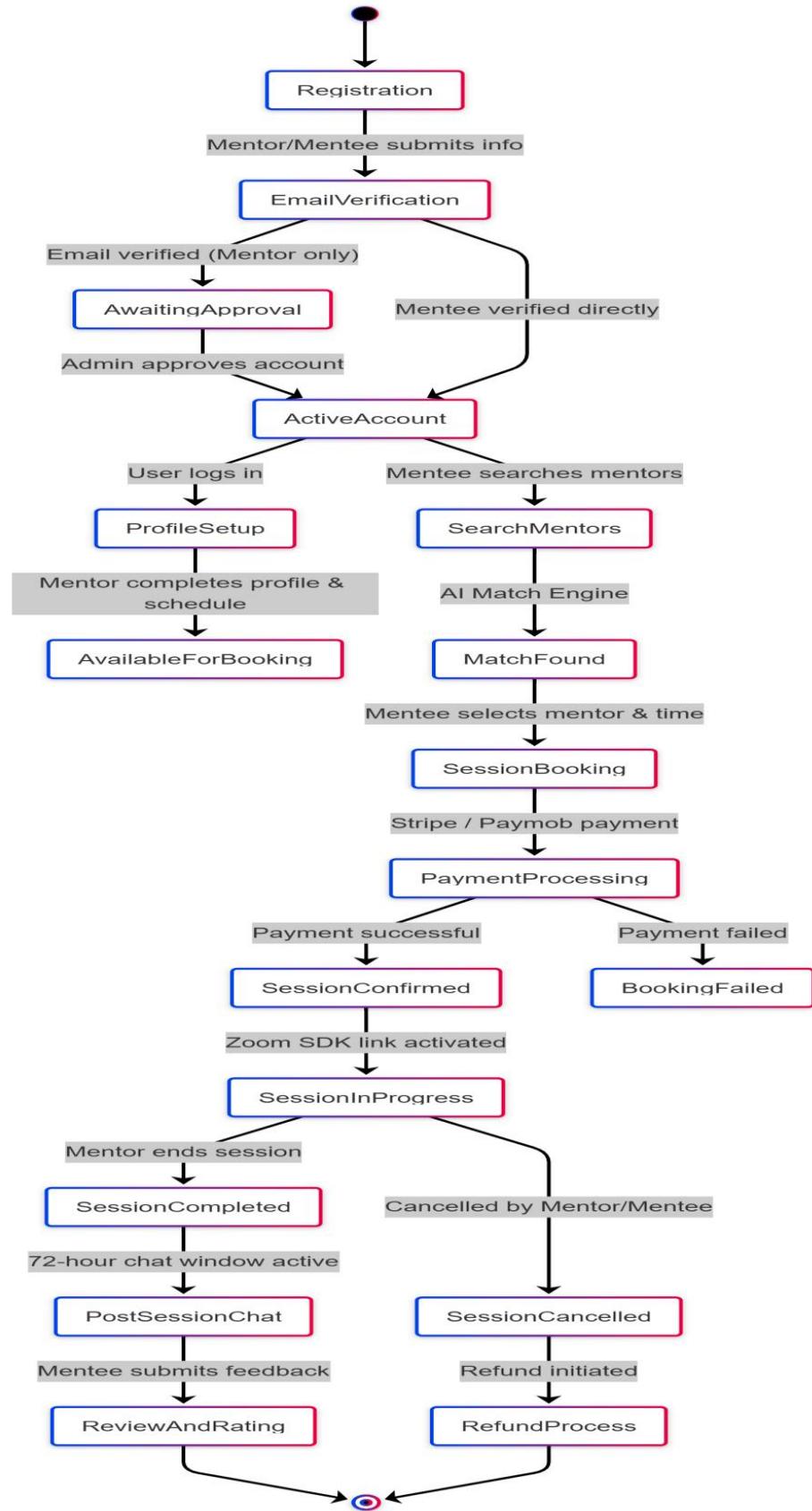
II. Class Diagram



III. Sequence Diagram



IV. State Diagram



NON-FUNCTIONAL REQUIREMENTS

1. Performance

- The system must load all platform pages (web) in less than **3 seconds** for 95% of requests.
- The platform must support up to **10,000 active users** (mentors, mentees, admins) concurrently without performance degradation.
- AI-powered mentor matching and session bookings should be processed with minimal delays (<2 seconds).

2. Availability & Reliability

- Uptime: The system must have **99.9% uptime** during active hours.
- Backups: Daily backups of the system with recovery options up to the last **24 hours**.
- Failover: The system should ensure continuity in case of technical failures (automatic failover).

3. Security

- All data must be **encrypted** in storage and during transfer using **TLS/SSL** encryption protocols.
- Role-based access control (RBAC) must be implemented, restricting access based on user roles such as **Admin**, **Mentor**, and **Mentee**.
- The system must maintain **audit trails**, logging all user actions, such as profile updates, session bookings, and payments.
- **Multi-Factor Authentication (MFA)** must be available and mandatory for **Admin** accounts to enhance security.

4. Compliance

- The system must comply with **local data privacy laws** in the **MENA region**.
- All **payment transactions** should comply with **PCI-DSS** standards.

5. Scalability

- The system must handle growth from **1 region** to **50+ regions**, scaling seamlessly to accommodate new users and mentors.
- **Additional features** (e.g., group sessions, new mentor categories) should be added without modifying the core system.
- The system must support **cloud-ready deployment**, capable of scaling resources (CPU, storage) up or down depending on user demand.

6. Usability

- The **user interface** must be **simple** and **intuitive** for all users (Mentors, Mentees, Admins), including those with **basic technical skills**.
- The platform must support a **multi-language interface** (at least **Arabic and English**) for regional accessibility.

7. Maintainability & Support

- **Modular Design:** The system must be built using **modular components**, making it easy to add features or fix bugs without downtime.
- **System Logs & Monitoring:** **Admins** should have access to logs and monitoring dashboards to track performance and errors.
- **Documentation:** **User manuals** and **technical documentation** must be available in **Arabic and English**.
- **Support & Maintenance:** **1 year of support and maintenance** will be provided after launch, with an option for renewal.

8. Deployment & Hosting

- The solution should be deployable on **cloud (Azure)** or **on-premises**, based on client preferences or organizational policy.
- Separate **development, testing,** and **production environments** should be used to ensure security, quality, and scalability.