**User Stories** forAI-Driven Gamified First Aid Training

**Actors:**

* **User** “Trainee”: The person using the system to train in first aid.
* **Admin** “Trainer”: The person responsible for creating content and monitoring learner progress.
* **System** “AI Engine”: The backend engine that provides real-time analysis, feedback, and personalization.

User Stories for the User (Trainee):

**Story 1: Scenario Selection**  
*As a User,*

*I want to choose from a variety of emergency scenarios*

*so that I can practice relevant first aid skills.*

**Acceptance Criteria:**

* The system displays at least five distinct emergency scenarios.
* Each scenario includes a brief description and difficulty rating.
* The user can select a scenario and begin the simulation within 3 clicks.
* A confirmation screen appears before starting the simulation.

**GUI implementation:**

* Simple menu-driven UI.
* Confirmation dialogue to start the selected scenario.

**Story 2: Real-Time Feedback During Simulation**  
*As a User,*

*I want to receive real-time AI feedback during the simulation*

*So that I can immediately understand my mistakes and improve my performance.*

**Acceptance Criteria:**

* Feedback is provided within 2 seconds after a user action.
* Feedback appears as both text and color-coded icons.
* Each piece of feedback is specific to the step or action in progress.
* The feedback panel is non-intrusive and can be minimized if needed.

**GUI Implementation:**

* A side panel or pop-up that displays real-time tips.
* Visual indicators (“True” marks for correct actions and “X” for errors).

**Story 3: Adaptive Difficulty Based on Performance**  
*As a User,*

*I want the system to adjust the difficulty of scenarios based on my performance*

*so that I remain challenged but not overwhelmed.*

**Acceptance Criteria:**

* The system monitors performance metrics (score, time, retries) during each simulation.
* If the user consistently scores above 80% in three consecutive scenarios, the system increases the difficulty by introducing additional steps or complexities.
* If the user scores below 50% in two consecutive scenarios, the system suggests an easier version of the scenario.
* The difficulty adjustment is communicated via an on-screen notification.

**GUI Implementation:**

* A dynamic indicator that notifies users when the difficulty level changes.
* A small pop-up or notification bar that explains the adjustment and its reason.

**Story 4: Training Progress Tracking**  
*As a User,*

*I want to view my training history*

*So that I can monitor my progress over time.*

**Acceptance Criteria:**

* A dashboard is available that displays a timeline of completed scenarios with associated scores and completion dates.
* The dashboard shows performance trends in a graph.
* Users can click on any entry to view details of that scenario.
* The data refreshes automatically after completing a new scenario.

**GUI Implementation:**

* A dedicated progress dashboard accessible from the main menu.
* Graphs or charts visually representing historical performance.
* Clickable timeline buttons that reveal detailed session information.

**Story 5: Reward System for Achievements**  
*As a User,*

*I want to earn rewards and badges for successful scenario completions*

*so that I stay motivated and recognize my improvements.*

**Acceptance Criteria:**

* Rewards are automatically granted upon successful scenario completion.
* The system displays a notification when a reward is earned.
* A rewards section is available so users can view all earned badges and points.
* Clicking a reward provides details on the criteria for earning it.

**GUI Implementation:**

* An integrated reward section within the progress dashboard or as a separate tab accessible from the main menu.
* Clear visual icons representing each badge or reward.
* Pop-up notifications or banners that inform users when they earn a new reward.

**Story 6: Personalized Learning Path**

*As a User,  
I want the system to suggest scenarios based on my past performance  
so that I can focus on areas where I need improvement.*

**Acceptance Criteria:**

* The system analyzes my performance history like scores, mistakes and identifies weak areas.
* Suggested scenarios are displayed on my dashboard or sent via notifications.
* Each suggestion includes a brief reason like "You struggled with (CPR) in your last session".
* I can accept or dismiss the suggestions.

**GUI Implementation:**

* A "Recommended for You" section on the main dashboard.
* Each recommendation shows the scenario title, a short description, and a "Start Now" button.
* An info icon next to each suggestion that, when clicked, reveals why it was recommended.

User Stories for the Admin (Trainer)

**Story 1: Scenario Content Management**  
*As an Admin,*

*I want to create, update, and delete emergency scenarios*

*so that the training content remains accurate and up to date.*

**Acceptance Criteria:**

* The Admin interface provides options to add, edit, and remove scenarios.
* Each scenario can be categorized by type and assigned a difficulty rating.
* Changes made by the Admin are reflected immediately on the user interface.

**GUI Implementation:**

* Admin dashboard with a "Manage Scenarios" section.
* Managing scenarios include fields for description, category, and difficulty.
* A list view that shows all existing scenarios with options edit/delete.
* Notification pop-ups confirming successful changes.

**Story 2: User Performance Monitoring**  
*As an Admin,*

*I want to view detailed reports of user performance*

*so that I can assess training effectiveness and identify areas for improvement.*

**Acceptance Criteria:**

* The system generates reports that include key metrics such as user scores, completion times, and progress trends.
* Reports can be filtered by date, scenario type, or user groups.
* Admins have the option to export performance data as PDF.

**GUI Implementation:**

* An integrated reporting dashboard accessible from the Admin panel.
* Filter options on the dashboard that allow Admins to filter report views by various criteria.
* Graphical representations of performance trends.
* Export buttons for generating PDF reports.

**Story 3: Group Management**

*As an Admin,  
I want to create and manage groups of trainees  
so that I can monitor their progress collectively.*

**Acceptance Criteria:**

* I can create groups, assign trainees to them, and name each group.
* Performance reports can be generated for a group, showing average scores and trends.
* I can send messages or notifications to all group members at once.
* Group changes are reflected immediately in the system.

**GUI Implementation:**

* A "Groups" section in the admin dashboard.
* A form to create/edit groups with fields for name, description, and trainee selection.
* A list view of groups showing member count and average performance metrics.
* A messaging interface for sending group notifications.

**Story 4: Custom Report Generation**

*As an Admin,  
I want to generate custom reports based on specific criteria  
so that I can analyze training data in detail.*

**Acceptance Criteria:**

* The system provides a report builder where I can select metrics (scores, completion time), filters (scenario type).
* Reports can be exported as PDF or CSV files.
* A preview of the report is available before finalizing.

**GUI Implementation:**

* A drag-and-drop interface for selecting metrics and filters.
* A live preview window showing the report as I build it.
* Buttons to save, share, or export the finalized report.

**Story 5: Certification Management**

*As an Admin,  
I want to issue certificates to trainees who complete certain milestones  
so that they can demonstrate their proficiency.*

**Acceptance Criteria:**

* The system tracks completion of required scenarios or minimum scores (like 80%+ on 5 scenarios).
* Certificates are auto-generated with the trainee’s name and completion date.
* Trainees can download or print their certificates from their profile.
* I can view a list of certified trainees and cancel certificates if needed.

**GUI Implementation:**

* A "Certifications" section in the admin dashboard with editable certificate templates.
* A list of trainees who qualify, with options to issue or revoke certificates.
* For trainees, a "My Certificates" tab in their dashboard with download/print buttons.