Sect 7: GUI-

Our system will use a web-based GUI that is simple, clean, and easy to understand for both Creators and Learners. It will work on desktops, laptops, tablets, and phones. When users open the website, the first screen they see is the Login Page. They can enter their email and password, and if needed, complete two-factor authentication. New users will also have a “Create Account” option.

Once users log in, they are taken to a dashboard based on their role. Creators will see a dashboard with buttons like Upload Content, Generate Lessons, Edit Quizzes, Flashcards, Course Dashboard, and Collaboration Tools. They will also be able to view basic analytics such as student activity and course progress.

Learners will see a different dashboard with options like My Courses, Continue Lesson, Take Quiz, Review Flashcards, and My Progress. Both dashboards will use a menu on the left side for navigation, a top bar for profile and settings, and the center of the screen will show the main content.

The GUI also works with the Factory Pattern in our system. For example, when a Creator uploads a document, the GUI sends it to a factory like a LessonFactory or QuizFactory. That factory creates the lesson, quiz, or flashcard, and then the GUI shows it on the screen so the Creator can edit or publish it.

The design will focus on being user-friendly. Buttons will be easy to see, text will be readable, and pages will load properly on different screen sizes. We will use simple layouts, clear labels, and tooltips so users don’t get confused.

#### Login Page- use a premade such as Frontegg possibly.

* Title: AI Course Generation System
* Fields:
  + Email input field
  + Password input field
* Buttons:
  + Login
  + Create Account
  + Forgot Password(link)

#### Creator Dashboard Layout

Left Sidebar Menu:

* Upload Content
* Generate Lessons (AI)
* Quizzes
* Flashcards
* Course Management Dashboard
* Collaboration Tools
* Analytics & Learner Progress

Top Navigation Bar:

* Project Name / Logo (left)
* Notifications (right)
* Profile & Settings (right)

Main Content Area:

* Shows selected feature (e.g., Upload screen, Lesson Editor, Quiz Creator)
* For uploads: “Upload Document” button + file preview
* For lessons: AI-generated lesson preview with Edit / Approve buttons
* For quizzes/flashcards: List view with Edit, Delete, or Publish options

#### Learner Dashboard Layout

Left Sidebar Menu:

* My Courses
* Continue Lesson
* Take Quiz
* Review Flashcards
* My Progress / Analytics

Top Navigation Bar:

* Course Platform Name (left)
* Notifications (right)
* Profile & Settings (right)

Main Content Area:

* Displays the lesson or course currently being viewed
* For lessons: Lesson title + content + “Next” or “Mark Complete” button
* For quizzes: Start Quiz button → questions + submit button
* For flashcards: Flashcard viewer with Flip / Next / Previous
* Progress tracker at bottom or right side (percentage or status bar)

#### How the GUI Connects to the Factory Pattern

* When a Creator uploads a document, the GUI sends it to the appropriate Factory (LessonFactory, QuizFactory, FlashcardFactory).
* The Factory processes the content and returns AI-generated output.
* The GUI displays this content for the Creator to review, edit, or publish.
* This keeps the system modular and easy to update or expand.