

Components of the System

The IITM BS Study Portal contains several distinct components, each designed to enhance the learning experience for students. The components are detailed based on the user stories created in the previous milestone:

1. Lecture Page

- **Lecture Videos:** Central repository where students can access all lecture videos for each course. Each video is accompanied with lecture transcript and supplementary content.
- **Gen AI Assistant (Coach):** Integrated on the lecture page, Coach allows students to ask questions related to the video content. It provides real-time doubt resolution, enhancing student comprehension and engagement.

2. Practice Assignment Page

- **Practice Assignments:** This section is dedicated to practice the concepts learned during the week. Students can attempt these assignments to practice and test their understanding.
- **Gen AI Assistant (Coach):** Coach helps learners test their conceptual understanding through interactive quizzes made using generative AI. It can pose questions, provide hints, and give feedback based on the student's responses.

3. Programming Practice Page

- **Programming Assignments:** Offers a platform for students to practice coding problems. It supports various programming languages and includes a built-in code editor.
- **Gen AI Assistant (Programming Copilot):** Acts as a copilot for programming assignments. It helps students by providing code suggestions, debugging assistance, and optimization tips. Coach can also explain programming concepts and solve coding challenges.

4. Gen AI Interface

- **Generative AI Tool:** Core feature that powers the Gen AI Assistant (Coach) across different pages. It can explain complex concepts, provide personalized study recommendations, and summarize lecture content.
- **Interactive Elements:** The interface includes interactive elements which provide step-by-step explanations to facilitate better understanding.

5. Discussion Forum (Discourse)

- **Discourse:** A platform where students can engage in discussions, ask questions, and share knowledge. Moderated by educators and peers, it helps to foster collaborative learning and community engagement.

6. Progress Tracking

- **Dashboard:** Students have access to a personalized dashboard that tracks their progress across various courses. It displays completed assignments, upcoming deadlines, and overall student performance.