
Project Name: *EduSimplify AI*

COURSE CONTENT SIMPLIFICATION AGENT

Presented By:

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OUTLINE

- **Problem Statement** (Should not include solution)
- **Proposed System/Solution**
- **System Development Approach** (Technology Used)
- **Algorithm & Deployment**
- **Result (Output Image)**
- **Conclusion**
- **Future Scope**
- **References**

PROBLEM STATEMENT

- Students struggle with complex academic material.
- First-generation learners and non-English-medium students face extra challenges.
- Need for simple, clear, and accessible learning content

PROPOSED SOLUTION

- The proposed solution is an AI-powered “Course Content Simplification Agent” that takes complex academic text as input and produces simplified, easy-to-understand content.
- Uses IBM Cloud Lite services and IBM Granite models for natural language understanding and simplification.
- Integrates search tools (Google/Wikipedia) to fetch relevant examples and explanations.
- Provides bullet-point summaries, definitions of key terms, and relatable examples.
- Designed to be friendly, motivational, and student-focused.

SYSTEM APPROACH

- **Platform:** IBM Cloud Lite
- **AI Model:** IBM Granite LLM for simplification and summarization
- **Tools:** Google Search, Wikipedia Search, Document Search
- **Frontend:** Web-based interface (HTML/CSS/JS)
- **Backend:** Python Flask API for connecting model and UI
- **Deployment:** Hosted via IBM services / GitHub Pages

ALGORITHM & DEPLOYMENT

- **Algorithm Steps:**

- User enters academic text or uploads notes.
- Pre-processing: Remove extra formatting, detect language, split into sections.
- Use IBM Granite model for simplification.
- Fetch examples/definitions using Google/Wikipedia API if needed.
- Generate simplified text + key points + optional local language translation.
- Display results in the UI.

- **Deployment:**

- Backend deployed on IBM Cloud Functions or Flask server.
- Frontend on GitHub Pages / IBM App Hosting.
- Integrated APIs for search and retrieval.

RESULT

- Before and after simplification screenshots.
- Example: Complex paragraph from a science textbook simplified into easy language.

CONCLUSION

- The Course Content Simplification Agent makes education more accessible by breaking down complex material into simple, understandable language. It bridges the learning gap for students from diverse backgrounds, improving confidence and academic performance.

FUTURE SCOPE

- Multi-language support for regional learners.
- Voice-based learning (text-to-speech).
- Integration with LMS like Google Classroom, Moodle.
- Offline mode for rural areas.
- Personalized study plans and quizzes.

REFERENCES

- IBM Cloud Lite Documentation
- IBM Granite Model Documentation
- Wikipedia API Documentation
- Google Search API Docs

IBM CERTIFICATIONS

Journey to Cloud: Envisioning Your Solution

IBM SkillsBuild



IBM

IBM CERTIFICATIONS

IBM **SkillsBuild**

Completion Certificate



This certificate is presented to

Ayush Raj

for the completion of

**Lab: Retrieval Augmented Generation with
LangChain**

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 18 Jul 2025 (GMT)

Learning hours: 20 mins

IBM CERTIFICATIONS

- Screens



IBM Certifications

In recognition of the commitment to achieve
professional excellence



Ayush Raj

Has successfully satisfied the requirements for:

Journey to Cloud: Envisioning Your Solution



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THANK YOU