## Advanced Large Language Model (LLM) Course

Week	Date	Content
1	2024-12-13	Retrieval Augmented Generation (RAG) for LLM  Why augmenting LLMs?  Methods for LLM augmentation  Augmenting LLMs with retrieval  Augmenting LLMs with fine tuning  Homework  Content retrieval with embedding dataset
2	2024-12-20	<ul> <li>Chatbot Building with LLM APIs</li> <li>Environment setup</li> <li>Introduction to LLM APIs</li> <li>Using chat completion APIs</li> <li>Using fine tuning APIs</li> <li>Homework</li> <li>Build a chatbot with expertise of a domain using OpenAI API</li> </ul>
2024-12-27		Christmas Day Break
2025-01-03		New Year Break

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Week	Date	Content
3	2025-01-10	Chatbot Building with LLM Frameworks and Vector Database  Introduction to Langchain and LlamaIndex  Case study: a chatbot from Langchain and vector database  Homework  Rewrite last week's chatbot with Langchain and vector database
4	2025-01-17	Pipeline for LLM Applications: From Code to Products  Full stack LLM: tools needed for an LLM application  Case study: build an LLM app from ground  Homework  Improve the chatbot from last week to make it an application that is ready to face real users
5	2025-01-24	<ul> <li>More LLM Applications and Course Project</li> <li>Showcase of potential LLM applications for productivity, creativity and more</li> <li>Introduction to the course project: requirement and discussion</li> <li>Homework</li> <li>Build your own LLM product with business values</li> <li>Prepare for presentation</li> </ul>
6	2025-01-31	Project Presentation  • Student presentation on the course project