

# Crash Course - Generative AI

Transform Your Ideas into Real-World Applications with Generative AI

## Introduction

*"Step into the futuristic world of Generative AI with our comprehensive 4-week course. This program is meticulously crafted to provide you with a firm grounding in Generative AI technologies, empowering you to build innovative applications that can transform industries. With a blend of theoretical knowledge and hands-on experience, embark on a journey to becoming a proficient AI developer."*

## Who can take this course?

This course is meticulously designed for:

- Aspiring AI Developers looking to hone their skills and build groundbreaking applications.
- Professionals aiming to leverage AI technology to enhance their industry expertise.
- Students and Hobbyists seeking to delve deep into the fascinating world of AI.

No prior experience in AI is required, but a basic understanding of Python programming will be beneficial.

## Salient Features

When you enroll in this course, you embrace an opportunity to:

- Dive deep into project-based learning, enhancing your hands-on experience.
- Construct two real-world projects that serve as a testament to your acquired skills.
- Be guided by a curriculum that stays abreast with the industry demands, equipping you with the knowledge and skills that employers value."

# Schedule

Embark on a rewarding learning expedition stretched across four action-packed weeks. Each Saturday from May 25th, 2024 to June 15th, 2024 immerse yourself in a 3-hour offline workshop, designed to foster innovation and skill development. Here's what awaits you week by week

Week	Date	Title	Agenda Items
Week 1	May 25, 2024	Introduction to Gen AI & Crafting your First AI Application	<ul style="list-style-type: none"><li>- Exploring the evolution of large language models (LLMs), tracing their development from early research to their current state-of-the-art capabilities.</li><li>- Understanding the underlying principles and mechanics of how LLMs work, including their training processes, architectures, and the intuition.</li><li>- (hands-on) Introducing Langchain, for building AI applications that leverage the power of LLMs. Using GPT, Llama models using API keys.</li><li>- Delving into the art of prompt engineering, which involves crafting effective prompts to elicit desired responses from LLMs, and</li><li>- (hands-on) Building a Tweet Generator application as a hands-on project.</li></ul>

Week 2	June 1, 2024	Building AI Chatbots & Chat with Data (RAG)	<ul style="list-style-type: none"> <li>- Gaining insights into the world of conversational chatbots and how to create them using large language models.</li> <li>- (hands-on) Building a replica of ChatGPT, a state-of-the-art conversational AI, as a practical exercise.</li> <li>- (hands-on) Hands-on experience with creating chatbots using Google AI Studio and deploying shareable bots on Huggingface.</li> <li>- Exploring the concept of Retrieval-Augmented Generation (RAG), which enables LLMs to access and incorporate external data sources during conversations.</li> <li>- (hands-on) Developing customer service and podcast bots that can converse with data from PDFs and YouTube videos, respectively, using RAG and Langchain.</li> </ul>
Week 3	June 8, 2024	Fine Tuning Models on your Data + Intro to Audio Models	<ul style="list-style-type: none"> <li>- Exploring the capabilities of audio models, including text-to-speech and speech-to-text technologies.</li> <li>- (hands-on) Hands-on experience with generating podcasts from text using text-to-speech models and transcribing audio recordings to text using the Whisper model.</li> </ul>

			<ul style="list-style-type: none"> <li>- Grasping the fundamentals of fine-tuning, including its purpose and importance in enhancing the performance of AI models.</li> <li>- Preparing data for fine-tuning and fine-tuning models like GPT-3.5 and Llama.</li> <li>- (hands-on) Building an AI Writer application that leverages a fine-tuned LLM to generate human-like text.</li> </ul>
Week 4	June 15, 2024	AI Agents + Multimodal models + Image Models	<ul style="list-style-type: none"> <li>- Investigating the working of image models and multimodal models</li> <li>- (hands-on) Exploring models like Dalle-3, Stable Diffusion and GPT-V for creating AI applications.</li> <li>- Diving into the world of AI assistants, tools, and plugins that enhance productivity and enable seamless human-AI collaboration.</li> <li>- (hands-on) Hands-on experience with conducting internet searches using an AI agent and developing autonomous agents with Microsoft's Autogen.</li> <li>- Discussing the impact of AI on cybersecurity, including potential risks and mitigation strategies</li> <li>- (hands-on) Implementing guardrails to secure LLMs in production environments.</li> </ul>

## Applications you will develop

During this course, you will have the opportunity to build various real-world applications that integrate the power of Generative AI. Here's a glimpse of what you will be creating:

### *Email Generation App*

- *In this module, you will create an application that utilizes AI to generate email drafts automatically, saving time and enhancing productivity. Learn the nuances of crafting emails that resonate with the recipients and convey the intended message effectively.*

### *ChatGPT Replica*

- *Get hands-on experience building a replica of the renowned ChatGPT, understanding its underlying mechanisms. This module allows you to delve deeper into the world of AI chatbots, enhancing your skills in creating chatbots that can hold nuanced and detailed conversations.*

### *Story Telling App*

- *Unleash your creativity by developing a story-telling app, where AI helps to weave compelling narratives. This module will be a perfect blend of technology and creativity, offering insights into how AI can be used as a tool to foster creativity and storytelling.*

### *Chat with PDF*

- *This module teaches you how to create an application that can interact with PDF files, extracting and utilizing information seamlessly. Learn to build a tool that can revolutionize how we interact with documents, bringing a new dimension to data extraction and analysis.*

### *YouTube Bot*

- *This module teaches you how to create an application that can interact with YouTube videos, summarizing and answering questions about the content. Learn to build a tool that can transform how we watch and learn from videos, bringing a new dimension to information extraction and analysis.*

...and many more exciting applications that integrate AI to solve real-world problems and enhance your skills in the ever-evolving field of Artificial Intelligence.

Remember, each project you undertake not only adds to your portfolio but also sharpens your skills, preparing you for a rewarding career in the AI domain.

## How will this course benefit you?

*By the end of this course, you will have:*

- *Developed a solid foundation in Generative AI, paving the way for advanced studies or career opportunities.*
- *Acquired skills that are highly sought after in the technology industry, potentially opening doors to new job prospects.*
- *Built a robust portfolio showcasing your projects, serving as a testament to your expertise and creativity*

## Fee Structure

The course is priced at ~~Rs 20,000~~ 12,000 (An exclusive 40% discount)

## Contact Us for Registration

For any queries regarding the course, feel free to contact Satvik (+91 798961716 or [satvik@buildfastwithai.com](mailto:satvik@buildfastwithai.com))

## Registration through website

Registration link will soon be available on the website

1. Go to [buildfastwithai.com/genai-course](https://buildfastwithai.com/genai-course)
2. Login/Sign up using Google or Email
3. Follow the Stripe Payment [buildfastwithai.com/genai-course/buy](https://buildfastwithai.com/genai-course/buy)
4. You will receive a confirmation email

## About the Mentor



Satvik is the founder of Build Fast with AI and the lead mentor for this course. Holding both a Bachelor's and Master's degree from IIT Delhi, he has over 4 years of experience in data science and machine learning. Satvik is a leading consultant in generative AI and has helped numerous startups successfully implement AI features. Having coached over 5,000 people on leveraging generative AI, Satvik firmly believes in 'Learning by Doing' and emphasizes practical application in his courses to ensure learners can apply their skills in real-world scenarios.

## Frequently Asked Questions (FAQs)

*What is the fee for this course?*

- *The fee for this comprehensive 4-week course is Rs 20,000. This fee covers all the instructional materials, hands-on sessions, and projects you will undertake during the course*

*Who is this course designed for?*

- *This course is suitable for individuals with a keen interest in AI, including students, professionals, and enthusiasts looking to build applications using Generative AI. A basic understanding of Python programming would be beneficial but is not mandatory.*

*Will there be any projects or practical sessions included in the course?*

- *Absolutely! The course emphasizes hands-on learning, and you will be building several applications as a part of the curriculum, including an Email Generation App, ChatGPT Replica, a Story Telling App, a Chat with PDF application, and more.*

*What will I achieve by the end of this course?*

- *By the end of the course, you will have a solid understanding of Generative AI, along with experience in building real-world applications. You will also develop a personal AI roadmap to guide your further learning and career aspirations in the AI field.*

*Is there any certification provided at the end of the course?*

- *Yes, upon successful completion of the course, you will receive a certificate acknowledging your proficiency and the skills acquired during the course.*

*What if I miss a class?*

- *While we encourage all participants to attend each session to make the most out of this learning experience, we understand that conflicts can arise. We will provide recordings of the classes so that you can catch up on what you missed at your convenience.*

*How can I get in touch for further queries?*

- *For any further queries, you can reach out to us at [satvik@buildfastwithai.com](mailto:satvik@buildfastwithai.com) . We're here to assist you on your journey to mastering Generative AI!*

## More details about the course

### When is it happening?

- The cohort 3 of the crash course is starting on April 20th, Saturday
- It is a 4-week live cohort based course.
- We will have 3-hr lectures on every Saturday for 4 weeks from 10.30am to 1.30pm
- There will be a doubt solving session on Wed or Thurs
- It is total of 12-15 hours of live lectures + doubt solving sessions

### What will I learn?

- The course is designed for a Zero to One Journey in Generative AI
- The 4 modules of the course are designed in a way to give an overall understanding of main concepts of Gen AI
- One core feature of our course is - we don't just cover theory, all the lectures will involve build practical AI applications from scratch
- Every week has a theme - where we learn a new concept of Gen AI and build a practical application from scratch
- Following is the quick overview of what we will build:



- Week 1 is about - Understanding Basics of Generative AI and building AI apps like Email Generator, Tweet generator, etc
- Week 2 is about - Building conversational Chatbots and Chat with Data - we will create apps like customer service chatbot, chat with PDF/YT Video
- Week 3 is about - Creating your LLMs by finetuning models on your own data. You will a writing assistant.
- Week 4 is miscellaneous where will we cover many interesting topics like image/multimodal models, AI Agents, AI and Cybersecurity
- Every week you will also get an assignment similar to the one discussed during the session

## Important Links

1. Details about the course: [buildfastwithai.com/genai-course](https://buildfastwithai.com/genai-course)
2. Payment link: [buildfastwithai.com/genai-course/buy](https://buildfastwithai.com/genai-course/buy)