

Generative AI Bootcamp

Day 1: Google AI Studio

Objective:

Introduce students to Google AI Studio and its key Generative AI tools through practical, hands-on activities. Each activity focuses on one core tool or feature, helping students understand how to create, experiment, and build applications using AI capabilities.

Activity 1: Build an AI-Powered App (Nano Banana Tool)

Students will create a simple AI-powered app using the Nano Banana tool in Google AI Studio. This activity helps students understand how to design and deploy a basic AI model into an interactive app.

Activity 2: Create Conversational Voice Apps (Gemini Live API)

Students will learn how to build conversational voice applications using the Gemini Live API. They will explore how to give apps a voice and create simple interactive voice experiences.

Activity 3: Generate Images with Prompts

This session introduces image generation using AI. Students will learn how to generate creative and realistic images by providing short text prompts.

Activity 4: Develop an AI-Powered Chatbot

Students will design and build a chatbot capable of generating fast, AI-driven responses. This activity will help them understand how chatbots use AI to answer queries and engage in conversations.

Activity 5: Analyze Images with AI

Students will use Google AI Studio tools to analyze images — identifying objects, patterns, or attributes. This activity demonstrates how AI can interpret and understand visual content.

Day 2: Google AI Studio & Napkin AI

Activity 6: Transcribe Audio to Text

Students will explore AI-based transcription tools that convert spoken language into text. This introduces how AI can process audio inputs for documentation or analysis purposes.

Activity 7: Generate Speech from Text (Text-to-Speech)

Students will learn to generate realistic voice outputs from written text using AI. This helps them understand how voice synthesis works and where it can be applied.

Activity 8: Combine AI Features into a Mini Project

In this final activity, students will combine multiple tools — such as chatbot, image generation, and voice features — to create a small integrated AI project, showcasing what they learned throughout the day.

Activity 9: Introduction to Napkin AI and Visual Generation

Students will get an overview of Napkin AI and learn how to create visuals using simple text prompts. They will explore how AI can turn written ideas into creative images.

Activity 10: Generate Creative Visuals Using Prompts

Students will practice crafting prompts to generate artistic and imaginative visuals using Napkin AI. They will learn how prompt wording affects AI creativity and style.

Activity 11: Design Creative Posters and Concepts with AI

Students will use Napkin AI to design posters, concept art, and visual ideas based on given themes. This helps them understand the role of AI in assisting creative design processes.

Outcome:

By the end of Day 2, students will have practical experience using both Google AI Studio and Napkin AI. They will understand how to build AI-powered applications, generate visuals using prompts, and apply generative AI tools creatively.

Day 3: Notebook LLM

Activity 12: Getting Started with Notebook LLM

Students will learn the basics of using Notebook LLM — understanding the platform interface, uploading files, and exploring its key features like chat, summaries, and audio tools.

Activity 13: Upload and Analyze Study Material

Students will learn how Notebook LLM processes study materials to identify important concepts and generate insights, helping them grasp how AI assists in content understanding.

Activity 14: Generate Audio or Podcasts from Notes

Students will explore how Notebook LLM can convert written text into audio, learning how AI supports auditory learning and enhances accessibility.

Activity 15: Visualize Concepts with Mindmaps

Students will understand how AI can automatically create mindmaps to simplify complex topics, helping them visualize relationships between ideas for better comprehension.

Activity 16: Ask and Learn — AI-Powered Q&A

Students will learn to engage with AI by asking questions related to their materials and receiving explanations, discovering how AI can assist in personalized learning and concept clarification.

Activity 17: Create Summaries, FAQs, Timelines, and Study Guides

Students will learn how AI can generate different types of learning aids such as summaries, FAQs, and study guides, supporting more efficient preparation for exams and projects.

Outcome:

By the end of Day 3, students will have learned how to use AI tools within Notebook LLM to improve their study process. They will understand how AI can analyze, summarize, and visualize content — fostering smarter, more efficient learning habits.

Day 4: Botpress, Gamma, and HuggingFace

Activity 18: Introduction to Botpress

Students will get an overview of Botpress and understand its use in creating AI-driven conversational chatbots for various applications.

Activity 19: Build Your First Chatbot with Botpress

Students will create a simple chatbot using Botpress, learning how to set up conversational flows and basic interactions.

Activity 20: Create AI-Powered Presentations with Gamma

Students will be introduced to Gamma AI, where they will learn how to design professional and creative presentations automatically using AI.

Activity 21: Enhance Presentations and Visuals with Gamma Tools

Students will explore additional Gamma AI features to refine and personalize their generated presentations.

Activity 22: Explore HuggingFace AI Models

Students will explore HuggingFace and its collection of AI models, understanding how these models can enhance AI-based tools and applications.

Activity 23: Implement a Simple Use Case Using a HuggingFace Model

Students will experiment with a pre-existing HuggingFace model to understand how it can be applied in small AI use cases or tools.

Outcome:

By the end of Day 4, students will have basic hands-on exposure to chatbot creation with Botpress, presentation generation with Gamma AI, and AI model exploration using HuggingFace.

Day 5: Teachable Machine, RoboFlow, and MediaPipe Studio

Activity 25: Train a Simple Model with Teachable Machine

Students will learn how to create and train a basic AI model using Teachable Machine to classify images or gestures through a simple, interactive interface.

Activity 26: Introduction to RoboFlow for Image Data Handling

Students will get an overview of RoboFlow, learning how to prepare, organize, and label datasets for computer vision model training.

Activity 27: Build a Basic Image Detection Project using RoboFlow

Students will understand how to use RoboFlow to implement an image detection or object recognition project with pre-trained models.

Activity 28: Introduction to MediaPipe Studio

Students will be introduced to MediaPipe Studio and learn about its use in developing real-time computer vision and pose detection applications.

Activity 29: Hands-on with Pose or Gesture Recognition using MediaPipe

Students will apply MediaPipe tools to recognize human gestures or movements, observing how AI detects and processes real-time data.

Activity 30: Integrate Learnings into a Mini Vision Project

Students will combine elements from Teachable Machine, RoboFlow, and MediaPipe to design a small AI vision-based mini project, showcasing their understanding of all three tools.

Outcome:

By the end of Day 5, students will have practical exposure to AI model creation, image data handling, and real-time visual recognition using Teachable Machine, RoboFlow, and MediaPipe Studio.