Course Plan: Mastering Google Dialogflow ES

Course Overview: This course provides a comprehensive introduction to Google Dialogflow ES, covering all the essential components such as intents, entities, contexts, fulfillment, and integrations. By the end of the course, participants will be able to create sophisticated conversational agents using Dialogflow ES.

Course Objectives:

- Understand the fundamentals of conversational AI and Dialogflow ES.
- Learn to create and manage intents, entities, and contexts.
- Integrate Dialogflow ES with external services using fulfillment.
- Apply knowledge in a practical project to build a Customer Support chatbot.
- Prepare for real-world industry applications of conversational AI technologies.
- Apply knowledge in a practical project to build a Customer Support chatbot.

Course Outline:

Module 1: Introduction to Dialogflow ES

- **Lesson 1.1:** What is Dialogflow ES?
  - Overview of conversational AI
  - Key features of Dialogflow ES
- **Lesson 1.2:** Setting Up Dialogflow ES
  - Creating a Google Cloud account
  - Setting up a Dialogflow ES agent
  - Navigating the Dialogflow ES console

Module 2: Working with Intents

- **Lesson 2.1:** Understanding Intents
  - What are intents?
  - Creating and managing intents
- **Lesson 2.2:** Training Phrases
  - Adding training phrases
  - Best practices for training phrases

Module 3: Entities

- **Lesson 3.1:** Understanding Entities
  - What are entities?
  - Creating and managing entities
- **Lesson 3.2:** Using System Entities
  - Overview of system entities
  - Customizing system entities

Module 4: Contexts

- **Lesson 4.1:** Understanding Contexts
    - What are contexts?
    - Creating and managing contexts
- **Lesson 4.2:** Using Contexts to Manage Dialog Flow
    - Lifespan and scope of contexts
    - Practical examples of using contexts

Module 5: Fulfillment

- **Lesson 5.1:** Introduction to Fulfillment
    - What is fulfillment?
    - Setting up fulfillment in Dialogflow ES
- **Lesson 5.2:** Handling Fulfillment Responses
    - Writing fulfillment code
    - Parsing fulfillment responses

Module 6: Integrations

- **Lesson 6.1:** Integrating with Messaging Platforms
    - Overview of integration options
    - Integrating with common platforms (e.g., Messenger, Slack)
- **Lesson 6.2:** Advanced Integrations
    - Integrating with third-party APIs
    - Handling authentication and authorization

Practical Project: Building a Customer Support Chatbot

- **Project Overview:**
    - Objectives and requirements
    - Project setup and initial planning
- **Step 1: Designing the Chatbot**
    - Defining intents and entities
    - Creating the conversational flow
- **Step 2: Implementing the Chatbot**
    - Setting up contexts and fulfillment
    - Integrating webhooks for real-time data
- **Step 3: Testing and Debugging**
    - Testing the chatbot
    - Debugging common issues
- **Step 4: Deployment and Integration**
    - Deploying the chatbot
    - Integrating with a messaging platform

Course Deliverables:

- Comprehensive course materials (live recorded sessions)
- Practical assignments and quizzes for each module

- A fully functional Customer Support chatbot as a practical project (can be changed to a real case scenario)
- Access to a community forum for peer support and discussion (discord)
- Daily assignment, revision, and problem solving

Target Audience:

- Aspiring conversational AI developers
- Software engineers looking to expand their skill set
- Professionals interested in automating customer interactions

Prerequisites:

- Basic understanding of programming concepts
- Familiarity with web development (recommended but not required)
- Any backend framework experience is a plus for Webhook/Fulfilment (required or tought during sessions)

Duration:

- Total course duration: 3 weeks
- Weekly commitment: 1 hour

By the end of this course, participants will have a solid understanding of Google Dialogflow ES and will be able to create sophisticated conversational agents for various applications. The practical project will provide hands-on experience in building a real-world chatbot, preparing participants for advanced projects in the field of conversational AI.

Course Plan: Mastering Google Dialogflow CX

Course Overview: This course is designed to provide a comprehensive introduction to Google Dialogflow CX, covering all the essential components such as intents, entities, pages, flows, webhooks, and integrations. The course will culminate in a capstone project where participants will build a fully functional Food Ordering chatbot.

Course Objectives:

- Understand the basics of conversational AI and Google Dialogflow CX.
- Learn to create and manage intents, entities, pages, and flows.
- Integrate Dialogflow CX with external services using webhooks.
- Apply knowledge in a practical capstone project to build a Food Ordering chatbot.
- Prepare for real-world industry applications of conversational AI technologies.
- Apply knowledge in a practical project to build a Customer Support chatbot.

Course Outline:

Module 1: Introduction to Dialogflow CX

- **Lesson 1.1:** What is Dialogflow CX?
  - Overview of conversational AI
  - Differences between Dialogflow ES and CX
- **Lesson 1.2:** Setting Up Dialogflow CX

- Creating a Google Cloud account
- Setting up a Dialogflow CX agent
- Navigating the Dialogflow CX console

Module 2: Working with Intents

- **Lesson 2.1:** Understanding Intents
  - What are intents?
  - Creating and managing intents
- **Lesson 2.2:** Training Phrases
  - Adding training phrases
  - Best practices for training phrases

Module 3: Entities

- **Lesson 3.1:** Understanding Entities
  - What are entities?
  - Creating and managing entities
- **Lesson 3.2:** Using System Entities
  - Overview of system entities
  - Customizing system entities

Module 4: Pages and Flows

- **Lesson 4.1:** Understanding Pages
  - What are pages?
  - Creating and managing pages
- **Lesson 4.2:** Designing Flows
  - What are flows?
  - Creating and managing flows
  - Best practices for flow design

Module 5: Webhooks

- **Lesson 5.1:** Introduction to Webhooks
  - What are webhooks?
  - Setting up webhooks in Dialogflow CX
- **Lesson 5.2:** Handling Webhook Responses
  - Writing webhook code
  - Parsing webhook responses

Module 6: Integrations

- **Lesson 6.1:** Integrating with Messaging Platforms
  - Overview of integration options
  - Integrating with common platforms (e.g., Messenger, WhatsApp)
- **Lesson 6.2:** Advanced Integrations

- Integrating with third-party APIs
  - Handling authentication and authorization

Capstone Project: Building a Food Ordering Chatbot

- **Project Overview:**
  - Objectives and requirements
  - Project setup and initial planning
- **Step 1: Designing the Chatbot**
  - Defining intents and entities
  - Creating the conversational flow
- **Step 2: Implementing the Chatbot**
  - Setting up pages and flows
  - Integrating webhooks for order processing
- **Step 3: Testing and Debugging**
  - Testing the chatbot
  - Debugging common issues
- **Step 4: Deployment and Integration**
  - Deploying the chatbot
  - Integrating with a messaging platform

Course Deliverables:

- Comprehensive course materials (live recorded sessions)
- Practical assignments and quizzes for each module
- A fully functional Food Ordering chatbot as a capstone project (can be changed to a real case scenario)
- Access to a community forum for peer support and discussion (discord)
- Daily assignment, revision, and problem solving during the session

Target Audience:

- Aspiring conversational AI developers
- Software engineers looking to expand their skill set
- Professionals interested in automating customer interactions

Prerequisites:

- Basic understanding of programming concepts
- Familiarity with web development (recommended but not required)
- Any backend framework experience is a plus for Webhook/Fulfilment (required or tought during sessions)

Duration:

- Total course duration: 3 weeks
- Weekly commitment: 1 hour

By the end of this course, participants will have a solid understanding of Google Dialogflow CX and will be able to create sophisticated conversational agents for various applications. The capstone project will provide practical experience in building a real-world chatbot, preparing participants for advanced projects in the field of conversational AI.