

Amazon Connect – Advanced & Integrations (CCAS)

Duration: 4-Day

Day 1 – Architecture & Core Configuration

Module 1: Architecture Overview

- Overview of Amazon Connect architecture
- Core components
- Security and deployment considerations

Demo

- Admin console walkthrough
- Contact flow designer overview

Module 2: Instance Setup & Configuration

- Instance creation
- Telephony configuration
- Identity & access setup

Lab

- Create Connect instance
- Configure telephony and logging

Module 3: Users, Queues & Routing Profiles

- User roles & permissions
- Queue setup
- Routing profiles and assignment logic

Demo

- routing scenario

Lab

- Create users & routing profiles
- Configure queues and test routing

Module 4: Operational Settings & Reporting

- Hours of operation

- Holiday configuration
- Basic reporting dashboards

Lab

- Configure business hours
- Generate sample reports

Day 2 – Advanced Contact Flow Design

Module 5: Contact Flow Architecture

- Flow lifecycle
- IVR architecture best practices
- Modular design patterns

Demo

- Designing structured IVR flows

Module 6: IVR Menu & Input Handling

- DTMF configuration
- Voice menu design
- Multi-level navigation

Lab

- Build multi-level IVR menu

Module 7: Logic & Flow Control

- Branching logic
- Context attributes

Lab

- Implement conditional routing

Module 8: Error Handling & Resilience

- Retry mechanisms
- Fallback handling
- Disconnect scenarios

Lab

- Configure retry and fallback flows

Day 3 – Integrations & Event-Driven Design

Module 9: Lambda Integration Patterns

- Invocation methods
- Schema design
- Context attribute passing

Demo

- **Live Lambda invocation**

Lab

- **Integrate Lambda with contact flow**

Module 10: Event-Driven Workflow Concepts

- Event-driven routing
- Payload transformations

Lab

- Build event-driven routing logic

Module 11: Retry & Failure Handling

- Retry strategies
- Error workflows

Lab

- Configure integration retry logic

Module 12: Conversational Bot Integration

- Chatbot integration points
- Voice bot routing
- Conversational IVR

Demo

- Bot interaction inside IVR

Lab

- Integrate chatbot and configure intent routing

Day 4 – Observability, Debugging & Optimization

Module 13: Monitoring & Logging

- Monitoring
- Logs, metrics & alarms
- Observability best practices

Demo

- Monitoring dashboards walkthrough

Lab

- Enable logging and create dashboards

Module 14: Tracing & Troubleshooting

- Flow tracing
- Debugging failures
- Root cause analysis

Lab

- Troubleshoot failed flows

Module 15: Testing Strategies

- IVR testing approaches
- Simulation techniques
- Validation checklist

Demo

- End-to-end IVR testing

Capstone Project