## Lab 5-04: Building a Chatbot with Amazon Lex

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| **Introduction**  Amazon Lex is an AWS service for building conversational chatbots that understand natural language (text or voice). You define what users want (intents), the information to collect (slots), and responses. Lex handles the language understanding so you can create a working bot with minimal technical effort.  **Challenge**  Your company wants a simple website chatbot that answers common customer questions (opening hours, location) and collects a visitor’s name and email for follow-up. You will build, test, and deploy a basic Lex bot that can handle those tasks, so the support load is reduced.  **Lab Diagram**  **C:\Users\Binary Computers\Downloads\f98c3702-12a7-48a2-80f0-ca8604e3cd70.jpg**  **Solution**  **Step 1: Sign in to AWS Console**   1. Open <https://console.aws.amazon.com>. 2. Sign in with your AWS credentials.   **Step 2: Open Amazon Lex (v2) and choose a region**   1. In the console search bar, type Lex and select Amazon Lex.      1. Select a region that supports Lex (for example, us-east-1 or us-west-2).     **Step 3: Create the bot (basic settings)**   1. Click Create bot.      1. Bot name: CustomerAssistant.      1. Runtime role: If you do not have an existing role, then click Create a role with basic Amazon Lex permissions (recommended for lab).      1. Error logging: Enable (helps debug).      1. COPPA: Select No.      1. Then click Next.      1. Language: English (en\_US)      1. Click Done.     **Step 4: Add Intent: GetHours**   1. Click Add intent → Create intent. 2. Name: GetHours 3. Add sample utterances (what users might say):    * What are your opening hours?    * When do you open?    * Are you open today? 4. Set the Response (what the bot replies):    * We are open Monday to Friday from 9 AM to 6 PM. 5. Save intent.       **Step 5: Add Intent: GetLocation**   1. Add another intent named GetLocation. 2. Sample utterances: Where are you located?, What is your address? 3. Response: Our office is at 123 Main Street, Karachi. (replace with your address) 4. Save intent.   **Step 6: Add Intent: CollectContact**   1. Add intent named CollectContact. 2. Sample utterances: Contact me, I want support, Please get in touch 3. Add two required slots:    * user\_name, slot type AMAZON.Person, Prompt: What is your name?    * user\_email, slot type AMAZON.Email, Prompt: What is your email address? 4. After slots are filled, set final response: Thank you {user\_name}. We will contact you at {user\_email}. 5. Save intent.   **Step 7: Save and Build the bot**   1. Click Save (if needed), then Build (or Save and build). 2. Wait until the build completes (shows Built/Ready).     **Step 8: Test the bot in the console**   1. Use the Test chat pane on the right side of the bot editor. 2. Try: What are your opening hours? → The bot should reply with hours. 3. Try: Contact me → bot should ask for name and email, then confirm with the filled values. 4. If answers are incorrect, add more sample utterances or adjust prompts and rebuild.       **Step 9: Create an alias for testing (deployment basic)**   1. In the bot page, go to Aliases → Create alias. 2. Name it TestAlias and attach the bot version. 3. Click Create.     **Step 10: (Embed test) Use the built-in Web UI integration**   1. In the Lex console, navigate to Channels → Create channel → choose Web. 2. Configure the display name and create the channel. 3. Copy the provided integration snippet and paste it into a simple HTML file to test the bot on a web page. (Open that HTML in a browser to chat.)     **Step 11: Finish and clean up**   1. When your lab is complete, if you do not need the bot, delete the bot (Actions → Delete) and any aliases or channels you created to avoid clutter. |