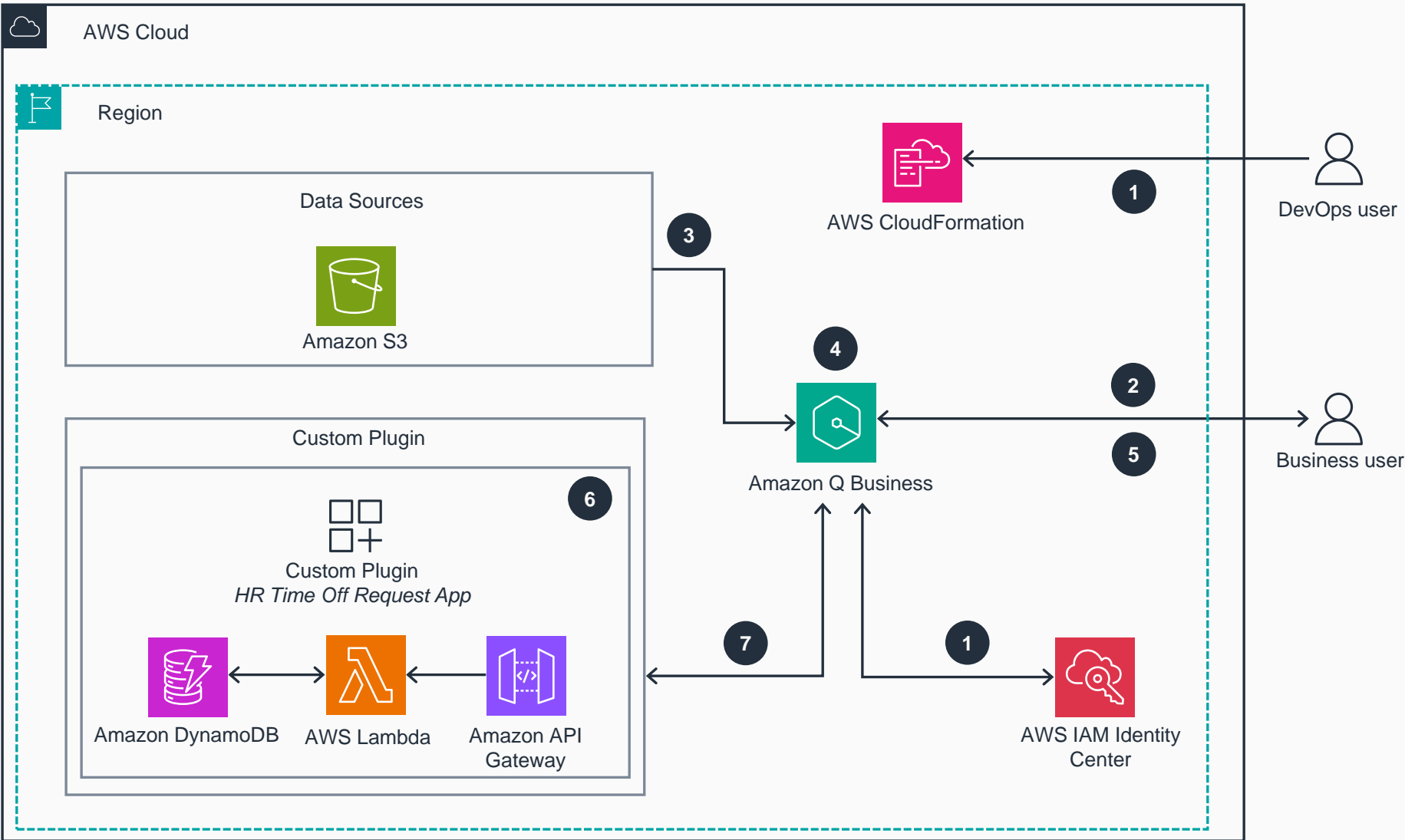


Guidance for AI Assistants with Amazon Q Business

This Guidance helps to deploy an Amazon Q application, connect it with data sources, and implement a chat with an HR application through a custom plugin.



- The DevOps user deploys the **AWS CloudFormation** stack to create an **Amazon Q** application. Using this infrastructure as code method, the stack creates all necessary resources, such as an **Amazon Q** index, an **Amazon Q** retriever, an **Amazon Q** data source, and **Amazon Q** custom plugin resources (such as **AWS Lambda** and **Amazon DynamoDB**), which are required for the custom plugin. **Amazon Q Business** works with an instance of **AWS IAM Identity Center** to provision users.
- The business user sends a query, such as query on vacation balance or time off, to the **Amazon Q** application.
- The business user may upload their own documents to an **Amazon Simple Storage Service (Amazon S3)** bucket to serve as the data source (as configured in Step 1) or use the sample documents that come uploaded with this Guidance. The **Amazon Q Business** application retrieves the most relevant information to the business user's query from this ingested content, for which the business user has access permissions.
- Amazon Q Business** sends the business user's request in addition to the retrieved information as context to the underlying large language model (LLM) within **Amazon Q** in the form of a prompt.
- Amazon Q** returns a succinct response to the business user's query based on the context, using responses from the underlying LLM in **Amazon Q**.
- The custom plugin provided with this Guidance includes an HR time off request application. This application stores business user data (such as vacation balance) in a **DynamoDB** table. The **Amazon Q** plugin resource contains the OpenAPI schema for this HR application.
- The **Lambda** function in the plugin, invoked by **Amazon API Gateway**, handles business user time off requests, including checking vacation days, submitting requests, and updating time off balances. The plugin enables a seamless, interactive HR application experience directly within the **Amazon Q** environment.