

Installation guide for DataTalk

1) App Registration

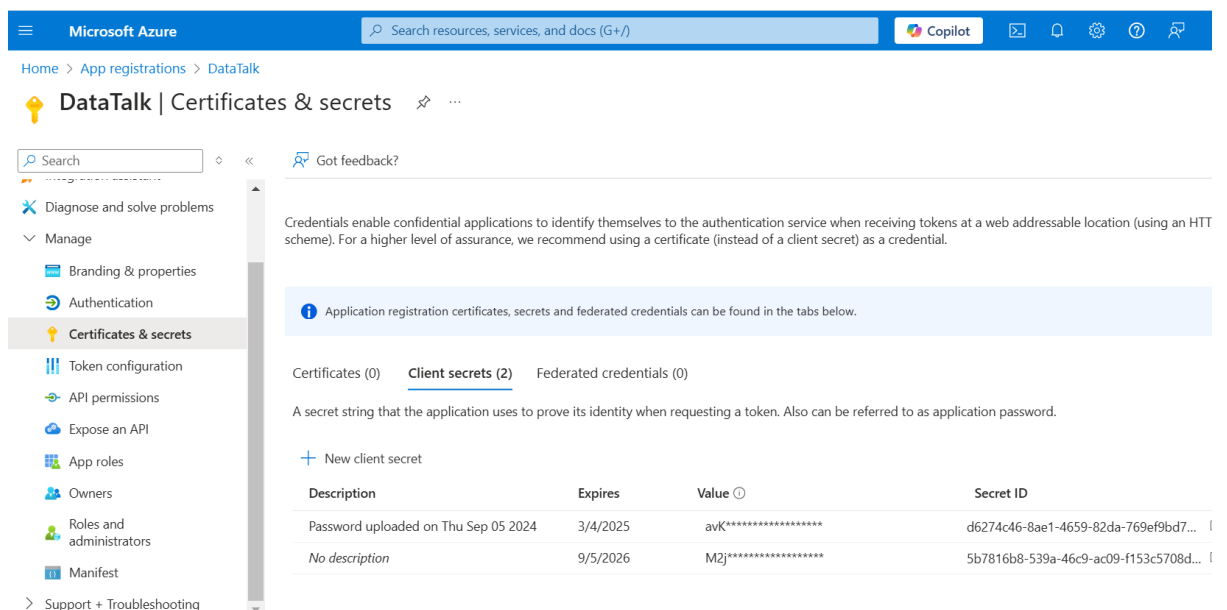
To authenticate the user to log in to the DataTalk portal using Azure AD, an application registration is required.

Why App Registration is required:

- Enables authentication and authorization for the user to access the DataTalk portal
- Allows the user to log in using their Azure AD credentials
- Enables DataTalk to access Azure resources and services on behalf of the user

Steps to register an app:

- 2) Log in to the Azure portal using your Azure AD credentials.
- 3) Click on **Azure Active Directory** in the navigation menu.
- 4) Click on **App registrations** and then click on **New registration**.
- 5) Enter a name for your application (e.g., "DataTalk") and select **Accounts in this organizational directory only**.
- 6) Click on **Register**.
- 7) Generate new client secret
- 8) Note down the **Application (client) ID**, **Client secret ID** and **Directory (tenant) ID**, as these will be required later in the installation process.



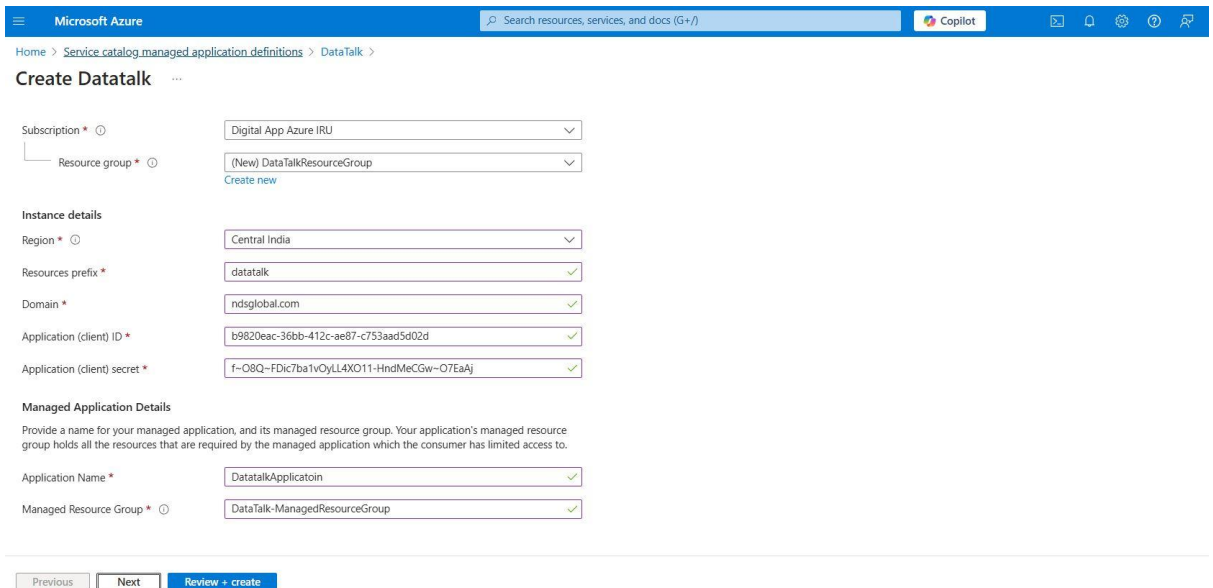
The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo, a search bar, and the Copilot icon. The breadcrumb trail is 'Home > App registrations > DataTalk'. The main heading is 'DataTalk | Certificates & secrets'. A left-hand navigation pane lists various management options, with 'Certificates & secrets' selected. The main content area displays a message: 'Application registration certificates, secrets and federated credentials can be found in the tabs below.' Below this, there are three tabs: 'Certificates (0)', 'Client secrets (2)', and 'Federated credentials (0)'. The 'Client secrets (2)' tab is active, showing a table of client secrets. The table has columns for 'Description', 'Expires', 'Value', and 'Secret ID'. Two client secrets are listed: one with a description 'Password uploaded on Thu Sep 05 2024' and another with 'No description'.

Description	Expires	Value	Secret ID
Password uploaded on Thu Sep 05 2024	3/4/2025	avK*****	d6274c46-8ae1-4659-82da-769ef9bd7...
No description	9/5/2026	M2j*****	5b7816b8-539a-46c9-ac09-f153c5708d...

Step 2: Install DataTalk from Azure Marketplace

Install DataTalk:

- 1) Go to the Azure Marketplace and search for "DataTalk".
- 2) Click on the DataTalk result, then click on the Create button.
- 3) Select the Subscription and choose an existing Resource Group or create a new one.
- 4) Select a Service Plan from the dropdown list.
- 5) Enter the Domain Name, which should be your company's domain.
- 6) Enter the Client ID and Client Secret obtained from the App Registration step (Step 1).
- 7) Review the terms and conditions, then click on the Create button to begin the installation process.



- Fill in the required details for each Azure service, ensuring that all **Service Names** are unique.
- Select the required plans for web apps from the available options.
- Review and fill in all required data for all services.
- Once all required data is filled in, click on the **Create** button.
- The deployment process will begin, setting up and configuring the required Azure services for DataTalk.
- Wait for the deployment to complete. This may take several minutes.

Troubleshooting:

- If the deployment fails due to non-unique service names, try deploying again with unique service names.
- Use the same process to redeploy with updated service names.

Step 3: Configure DataTalk

Post-Deployment Configuration:

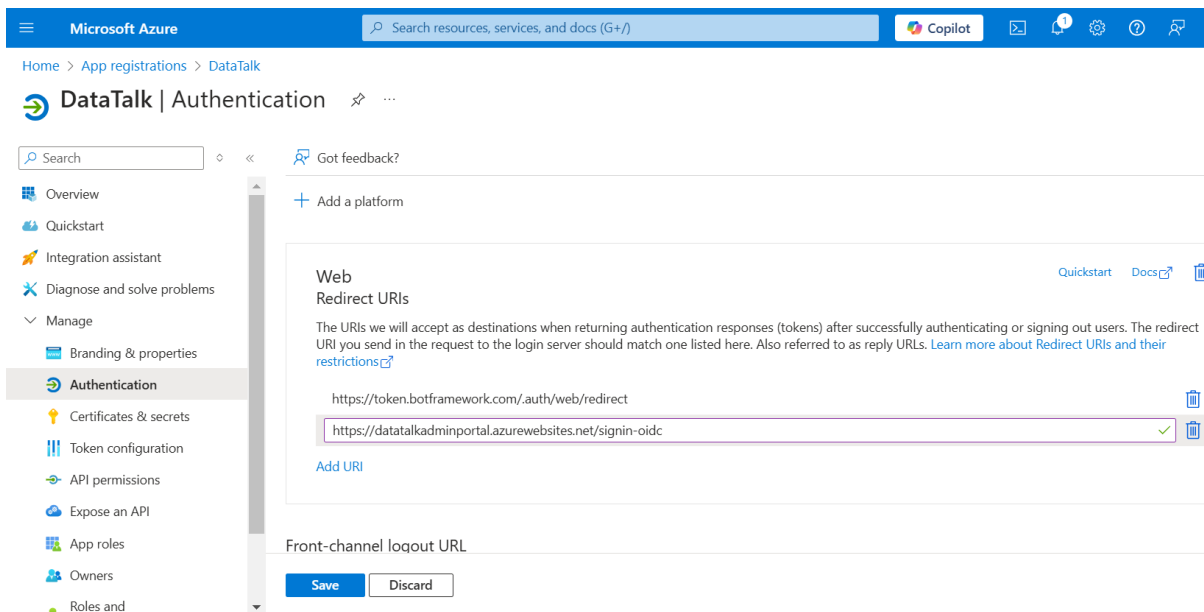
After a successful deployment, configure DataTalk by accessing the Admin Portal.

Add Admin Portal URL to App Registration:

- 1) Go back to the App Registration created in Step 1.
- 2) Click on **Authentication** under the **Manage** section.
- 3) Under **Redirect URIs**, click on **Add a platform** and select **Web**, Enter the Admin Portal URL
- 4) Click on **Configure**.

Access Admin Portal:

- 1) Go to the Admin Portal
- 2) Log in with your Azure AD credentials.
- 3) Configure DataTalk as required.



The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo, a search bar, and various utility icons. The breadcrumb trail indicates the path: Home > App registrations > DataTalk. The main content area is titled "DataTalk | Authentication" and features a left-hand navigation menu with options like Overview, Quickstart, Integration assistant, Diagnose and solve problems, and a Manage section containing Branding & properties, Authentication (selected), Certificates & secrets, Token configuration, API permissions, Expose an API, App roles, Owners, and Roles and permissions. The main pane shows the "Web Redirect URIs" configuration for the app. It includes a description of Redirect URIs, a list of existing URIs (https://token.botframework.com/.auth/web/redirect and https://datatalkadminportal.azurewebsites.net/signin-oidc), and an "Add URI" button. At the bottom, there are "Save" and "Discard" buttons.

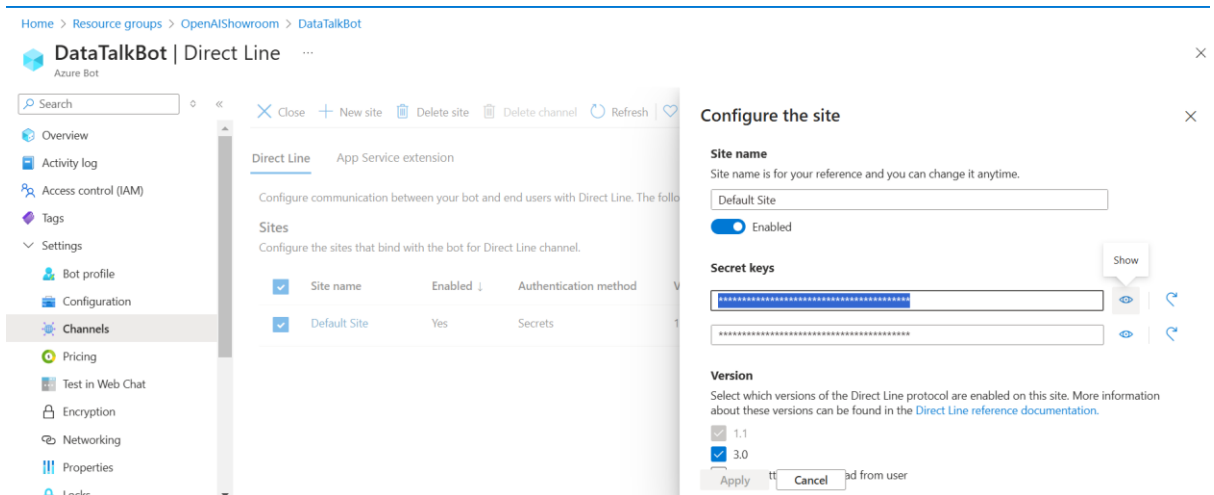
Step 5: Configure Solution Settings

Navigate to the Admin, Click on **Configuration**. Fill in Solution Configuration Details:

- 1) **Microsoft ID:** Enter the App Registration ID from Step 1.
- 2) **Microsoft Password:** Enter the App Registration Value from Step 1.
- 3) **Blob Storage:** Enter the storage connection string of the newly created storage account with DataTalk deployment.
- 4) **Application Settings:** Enter the application settings details of the DataTalk application.
- 5) **Directline Secret:** Enter the Directline secret from DataTalk Bot handler -> Channels -> Directline -> DirectlineSecret.
- 6) **Bot URI:** Enter the DataTalk Bot URL created during deployment.
- 7) **Function App URL:** Enter the Function App URL generated during deployment.
- 8) **Function App Key:** Enter the 'pyrun' function key generated in the Function App.
- 9) **Allowed References:** Enter the URLs of the websites from which you will access the DataTalk application. Only these websites/sources will be able to access the DataTalk Bot due to security restrictions.

Save Configuration:

- 1) Check the box **Enable Bot**.
- 2) Click **Save** to save all configuration data for the Bot.



Home > Resource groups > OpenAIShowroom > DataTalkBot

DataTalkBot | Direct Line

Search

Overview
Activity log
Access control (IAM)
Tags
Settings
Bot profile
Configuration
Channels
Pricing
Test in Web Chat
Encryption
Networking
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Locks

Direct Line App Service extension

Configure communication between your bot and end users with Direct Line. The following sites are configured for this bot.

Sites
Configure the sites that bind with the bot for Direct Line channel.

Site name	Enabled	Authentication method
Default Site	Yes	Secrets

Configure the site

Site name
Site name is for your reference and you can change it anytime.
Default Site

Enabled

Secret keys
Show

Version
Select which versions of the Direct Line protocol are enabled on this site. More information about these versions can be found in the [Direct Line reference documentation](#).

1.1
3.0

Apply Cancel

Home > Resource groups > OpenAIShowroom >

DataTalkISV

Application Insights

Search

- Application Dashboard
- Getting started
- Search
- Logs
- Monitor resource group
- Feedback
- Favorites
- Rename
- Delete

Overview

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Investigate
- Monitoring
- Usage
- Configure
- Settings
- Automation
- Help

Essentials

Resource group (move): [openaishowroom](#)

Location: Central India

Subscription (move): [Digital App Azure IRU](#)

Subscription ID: d95c2a23-21f9-4857-836d-66a93b8a7c8e

Tags (edit): [Add tags](#)

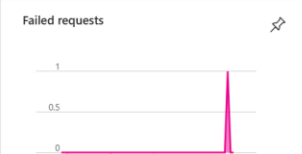
Instrumentation Key: 5ebf85f8-a338-43ab-b4a5-e089560bb67c

Connection String: InstrumentationKey=5ebf85f8-a338-43ab-b4a5-e089560bb67c...


Workspace: DefaultWorkspace-d95c2a23-21f9-4857-836d-66a93b8a7c8e...

Show data for last: 30 minutes | **1 hour** | 6 hours | 12 hours | 1 day | 3 days | 7 days | 30 days

Failed requests



Server response time



JSON View

Copy to clipboard

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

Home > Resource groups > OpenAIShowroom > datalookupisvstorage

datalookupisvstorage | Access keys

Storage account

Search

- Set rotation reminder
- Refresh
- Give feedback

Access keys authenticate your applications' requests to this storage account. Keep your keys in a secure location like Azure Key Vault, and replace them often with new keys. The two keys allow you to replace one while still using the other.

Remember to update the keys with any Azure resources and apps that use this storage account. [Learn more about managing storage account access keys](#)

Storage account name: [datalookupisvstorage](#)

key1 Rotate key

Last rotated: 10/23/2024 (50 days ago)

Key: Show

Connection string: Show

key2 Rotate key

Last rotated: 10/23/2024 (50 days ago)

Home > Resource groups > OpenAIShowroom >

datatalkisvpyrns

Function App

Search

- Browse
- Refresh
- Stop
- Restart
- Swap
- Get publish profile
- Reset publish profile
- Download app content
- Delete
- Send your feedback

Overview

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Microsoft Defender for Cloud
- Events (preview)
- Recommended services (preview)
- Log stream
- Functions
- Deployment
- Settings
- Performance

Essentials

Resource group (move): [OpenAIShowroom](#)

Status: Running

Location (move): Central India

Subscription (move): [Digital App Azure IRU](#)

Subscription ID: d95c2a23-21f9-4857-836d-66a93b8a7c8e

Tags (edit): [Add tags](#)

Default domain: [datatalkisvpyrns.azurewebsites.net](#)

Operating System: Linux

App Service Plan: [ASP-datatalkisvpyrns-cfd4-f1.1.0](#)

Runtime version: 4.1036.2.2

Functions Metrics Properties Notifications (0)

Set up local environment Refresh

Filter by name...

Name	Trigger	Status	Monitor
pyrun	HTTP	Enabled	Invocations and more

Home > Resource groups > OpenAIShowroom > datatalkispyruns > pyrun

pyrun | Function Keys

datatalkispyruns

Code + Test Integration **Function Keys** Invocations Logs Metrics

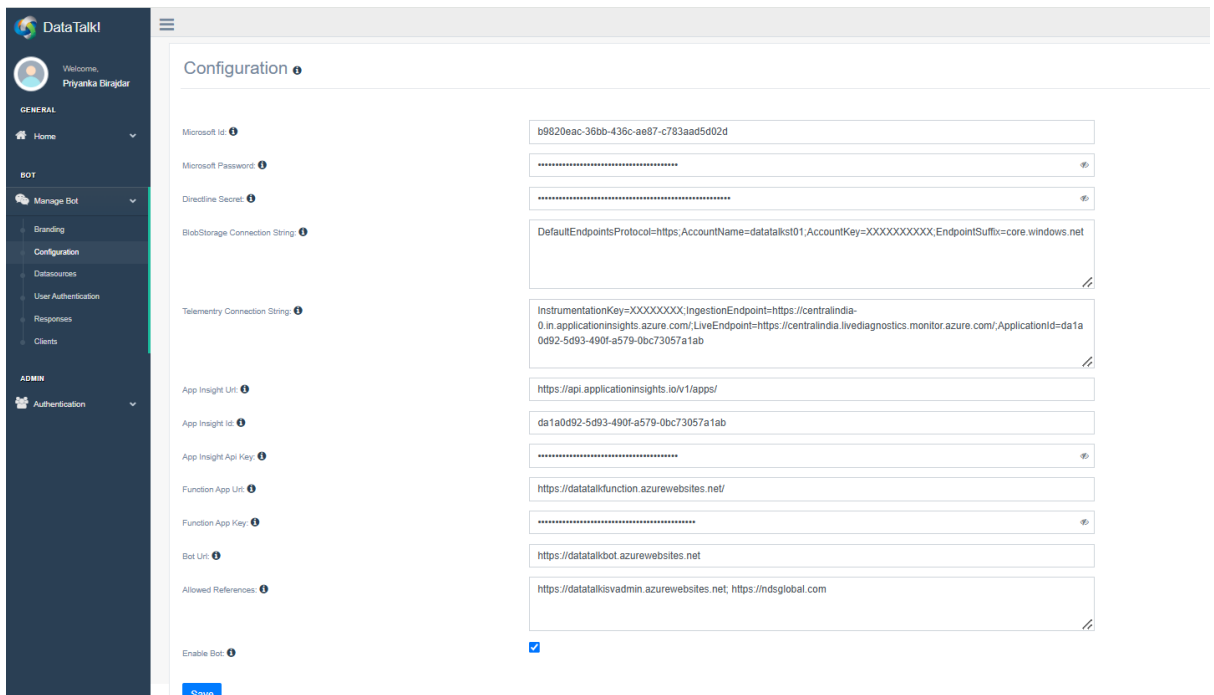
+ New function key Refresh Send us your feedback

Function keys
Function keys are scoped to this function and can be used to access this function.

Search

Name	Value
default

Copy to clipboard Show value Renew key value



DataTalk!
Welcome, Piyanka Birajdar

GENERAL
Home

BOT
Manage Bot

Branding
Configuration
Data sources
User Authentication
Responses
Clients

ADMIN
Authentication

Configuration

Microsoft Id: b9820eac-36bb-436c-ae87-c783aad5d02d

Microsoft Password:

Directline Secret:

BlobStorage Connection String: DefaultEndpointsProtocol=https;AccountName=datatalks101;AccountKey=XXXXXXXXXX;EndpointSuffix=core.windows.net

Telemetry Connection String: InstrumentationKey=XXXXXXXX;IngestionEndpoint=https://centralindia-0.in.applicationinsights.azure.com/LiveEndpoint=https://centralindia.livediagnostics.monitor.azure.com/ApplicationId=da1a0d92-5d93-490f-a579-0bc73057a1ab

App Insight Uri: https://api.applicationinsights.io/v1/apps/

App Insight Id: da1a0d92-5d93-490f-a579-0bc73057a1ab

App Insight Api Key:

Function App Uri: https://datatalkfunction.azurewebsites.net/

Function App Key:

Bot Uri: https://datatalkbot.azurewebsites.net

Allowed References: https://datatalksvadmin.azurewebsites.net, https://mdsglobal.com

Enable Bot:

Save

Step 6: Create Azure OpenAI Deployment

Create Azure OpenAI Deployment:

1. Navigate to the OpenAI service newly created in the DataTalk deployment.
2. Click on **Deployments** and then click on **New deployment**.
3. Select **Microsoft 40 Mini** or a higher version as the model.
4. Configure the deployment details as required.

Configure AI Settings in Admin Portal:

1. Navigate to the Admin Portal
2. Click on **Configuration**.
3. Navigate to **AI**.
4. Enter the details of the newly created Azure OpenAI deployment.

5. Save the changes.

Step 7: Add Data Sources

Adding data sources is a mandatory step in configuring DataTalk. DataTalk uses these data sources to answer user queries and provide relevant information. In Admin Portal, navigate to **DataSources** and **Add New Data Source**.

Configure Data Source:

1. Select the **Database Type** from the list of available data sources.
2. Provide the **Connection String** for the selected database.
3. Provide the **Database Version**.
4. Click **Save** to save the data source configuration.

Select Tables (Mandatory):

1. After successful saving, click on **Tables**.
2. Select only the required database tables to expose to DataTalk.
3. Click **Save** to save the selected tables.

Manage Description (Optional):

If table schemas are not self-explanatory, provide detailed descriptions of the tables and schemas in this section.

Table Schema (Mandatory):

1. Provide the **Create Table schema** for all selected tables.
2. Ensure the schema is accurate and case-sensitive, as it will be used for query generation.

Quick Actions (Mandatory):

Provide some **Quick Actions** for users to start with, along with it upload **Sample Images** to be displayed on top of the user interface.

DataTalk!

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GENERAL

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ADMIN

Authentication

All Tables

Database Name: northwind

Select All

<input checked="" type="checkbox"/> purchase_order_details	<input checked="" type="checkbox"/> purchase_order_status	<input checked="" type="checkbox"/> orders_status
<input checked="" type="checkbox"/> order_details	<input checked="" type="checkbox"/> employees	<input checked="" type="checkbox"/> suppliers
<input checked="" type="checkbox"/> order_details_status	<input checked="" type="checkbox"/> customers	<input type="checkbox"/> privileges
<input type="checkbox"/> employee_privileges	<input checked="" type="checkbox"/> inventory_transaction_types	<input checked="" type="checkbox"/> orders_tax_status
<input checked="" type="checkbox"/> orders	<input checked="" type="checkbox"/> shippers	<input type="checkbox"/> inventory_transactions
<input type="checkbox"/> strings	<input checked="" type="checkbox"/> invoices	<input checked="" type="checkbox"/> products
<input checked="" type="checkbox"/> sales_reports	<input checked="" type="checkbox"/> purchase_orders	

DataTalk!

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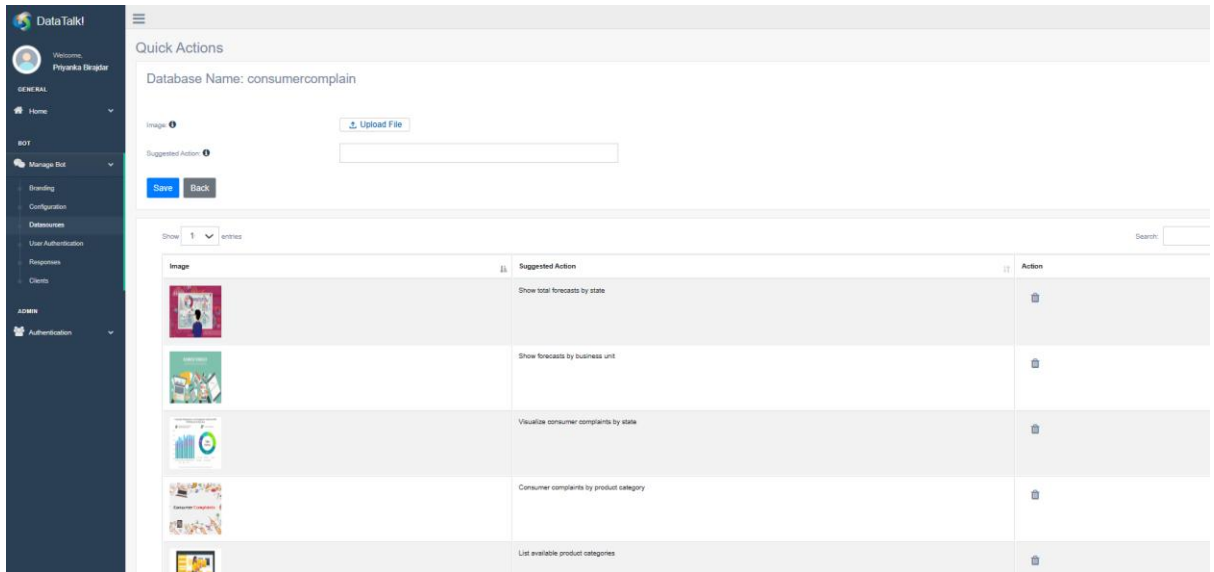
ADMIN

Authentication

Add Script

Database Name: northwind

Table Name	Table Schema
purchase_order_details	CREATE TABLE `purchase_order_details` (`id` int NOT NULL AUTO_INCREMENT, `purchase_order_id` int NOT NULL, `product_id` int DEFAULT NULL, `quantity` decimal(18,4) NOT NULL, `unit_cost` decimal(19,4) NOT NULL, PRIMARY KEY (`id`))
purchase_order_status	CREATE TABLE `purchase_order_status` (`id` int NOT NULL, `status` varchar(50) DEFAULT NULL, PRIMARY KEY (`id`))
orders_status	CREATE TABLE `orders_status` (`id` tinyint NOT NULL, `status_name` varchar(50) NOT NULL, PRIMARY KEY (`id`))
order_details	CREATE TABLE `order_details` (`id` int NOT NULL AUTO_INCREMENT, `order_id` int NOT NULL, `product_id` int DEFAULT NULL, `quantity` decimal(18,4) NOT NULL DEFAULT '0.0000', `unit_price` decimal(19,4) DEFAULT '0.0000', `discount` double NOT NULL, PRIMARY KEY (`id`))



Step 8: Configure User Authentication

DataTalk can be used by all users without authentication or can only be restricted to authenticated user. In Admin Portal, under User Authentication type either Anonymous or Authenticated. Anonymous selection does not require any configuration. For Authenticated user, configure and fill details as below

Configure User Authentication in Azure Bot:

1. Requires configuration of Azure AD authentication for the Bot.
2. Admin can use the same App Registration created in Step 1 for this purpose.
3. Refer to the Microsoft documentation for adding Azure AD authentication to Microsoft Bot DirectLine: <https://docs.microsoft.com/en-us/azure/bot-service/bot-builder-authentication>
4. Configure Azure AD authentication to enable authenticated users to access DataTalk.
5. Copy OAuth Connection name, OAuth Provider from Bot App and fill these details in Admin portal. OAuth Connection name should match exactly and is case sensitive.

Home > DataTalkBot

DataTalkBot | Configuration

Azure Bot

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- Settings
 - Bot profile
 - Configuration**
 - Channels
 - Pricing
 - Test in Web Chat
 - Encryption
 - Networking
 - Properties
 - Locks

Microsoft App ID (manage resources)

332f3825-b13e-4435-bb7f-8b46b2cae844

Application Insights Instrumentation key
Instrumentation key (Azure Application Insights key)

Application Insights API key
API key (User-Generated Application Insights API key)

Application Insights Application ID
Application ID (Application Insights Application ID)

Schema Transformation Version
V1.3
This determines how Bot Service converts messages sent between your bot and channels. [Learn more](#)

Name	Service Provider
DataTalkISVAuthentication	Azure Active Directory v2

[Add OAuth Connection Settings](#)

Apply Discard changes

DataTalkISVAuthentication

Service Provider Connection Setting

Delete Test Connection

DataTalkISVAuthentication

Service Provider
Azure Active Directory v2

Client id *
5d014f82-37aa-4de5-9910-35ad943f4e42

Client secret *

Token Exchange URL

Tenant ID
29d212f5-d1e1-4665-9f96-3a82e2863667

Scopes
openid profile email Mail.Read Mail.Send User.Rea...

Save Cancel

Home > DataTalkBot

DataTalkBot | Direct Line

Azure Bot

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Close + New site Delete site Delete channel Refresh

Direct Line App Service extension

Configure communication between your bot and end users with Direct Line. The following sites are configured for this bot.

Sites
Configure the sites that bind with the bot for Direct Line channel.

Site name	Enabled	Authentication method
Default Site	Yes	Secrets

Configure the site

version

Select which versions of the Direct Line protocol are enabled on this site. More information about these versions can be found in the [Direct Line reference documentation](#).

1.1

3.0

Block attachment upload from user

Enhanced authentication options

For bots using [Azure Bot Service authentication](#), enable tamper-proof user IDs and the ability to specify trusted client hosts. Learn more about enhanced Direct Line [authentication features](#).

Enabled

Trusted origin
https://datatalkisvadmin.azurewebsites.net

[+ Add a trusted origin](#)

Apply Cancel

DataTalk!

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GENERAL

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ADMIN

Authentication

User Authentication

Anonymous Authenticated

Authentication Configuration Name: DataTalkISVAuthentication

Authentication Provider: https://graph.microsoft.com/oidc/userir

Timeout in Minutes: 30

Save

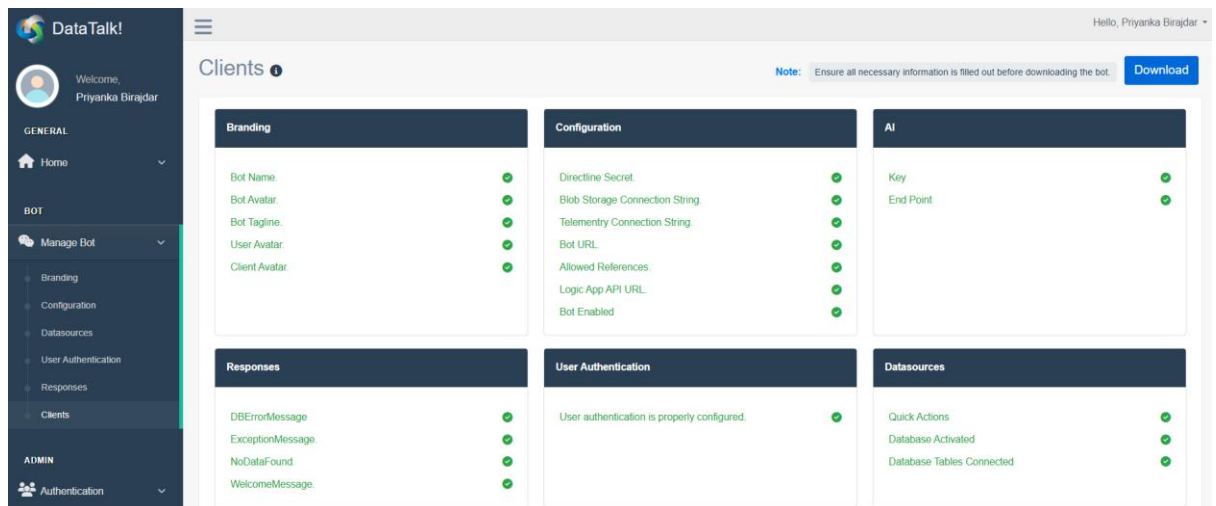
Step 9: Download and Integrate DataTalk Script

Download DataTalk script from Client tab in Admin portal

Integrate and Start Using DataTalk:

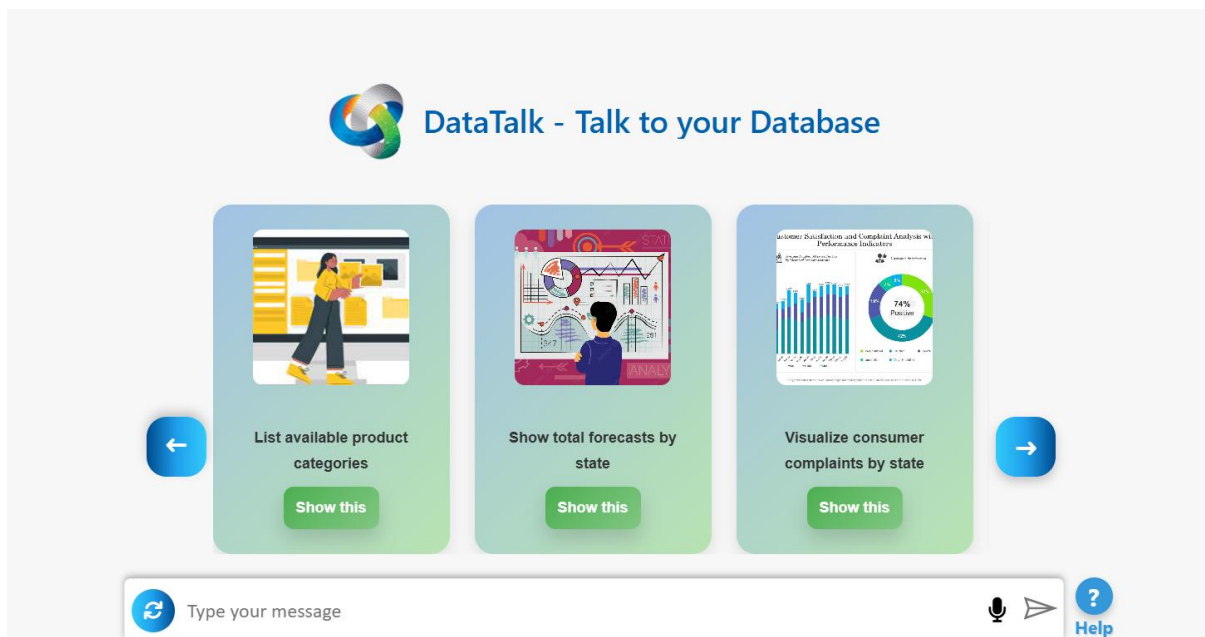
1. Integrate the downloaded script into your application or website.
2. Start talking to your configured databases using DataTalk.
3. Ask questions, and DataTalk will provide answers based on the data in your configured databases.

Congratulations! You have successfully configured and deployed DataTalk.



The screenshot shows the 'Clients' configuration page in the DataTalk Admin Portal. The page is divided into several sections, each with a list of settings and their status (indicated by green checkmarks):

- Branding:** Bot Name, Bot Avatar, Bot Tagline, User Avatar, Client Avatar.
- Configuration:** Directline Secret, Blob Storage Connection String, Telemetry Connection String, Bot URL, Allowed References, Logic App API URL, Bot Enabled.
- AI:** Key, End Point.
- Responses:** DBErrorMessage, ExceptionMessage, NoDataFound, WelcomeMessage.
- User Authentication:** User authentication is properly configured.
- Datasources:** Quick Actions, Database Activated, Database Tables Connected.



The screenshot shows the DataTalk chat interface. At the top, it says 'DataTalk - Talk to your Database'. Below this, there are three example queries displayed in a grid:

- List available product categories** (with a 'Show this' button)
- Show total forecasts by state** (with a 'Show this' button)
- Visualize consumer complaints by state** (with a 'Show this' button)

At the bottom of the chat interface, there is a 'Type your message' input field, a microphone icon, and a 'Help' button.

Consumer complaints by Product category by state and business unit

2 minutes ago



Fetching data for consumer complaints by Product Category, State, and Business Unit...



Here are the consumer complaints categorized by product, state, and business unit:

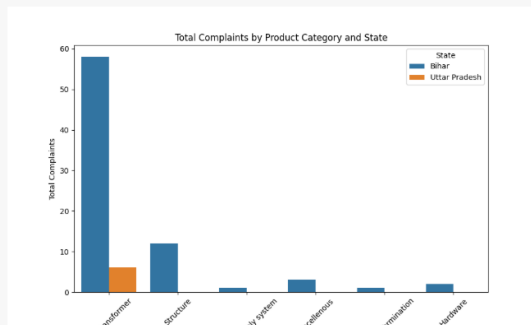
Product Category	State	Business Unit	Total Complaints
DTR Transformer	Bihar	Power Distribution	58
Structure	Bihar	Power Distribution	12
Electric Supply system	Bihar	Power Distribution	1
DTR Transformer	Uttar Pradesh	Power Distribution	6
Miscellaneous	Bihar	Power Distribution	3
Electrical Termination	Bihar	Power Distribution	1
Hardware	Bihar	Power Distribution	2

New messages

Type your message



Let me try to generate visual representation for these details. Hang in there...



2 minutes ago

New messages

Type your message

