Provisioning an Azure Cosmos DB through the Azure Portal involves several steps. Here’s a step-by-step guide to help you set up Cosmos DB:

**Step 1: Log in to the Azure Portal**

1. Navigate to the [Azure Portal](https://portal.azure.com/).
2. Sign in with your Azure account credentials.

**Step 2: Create an Azure Cosmos DB Account**

1. **Navigate to the Cosmos DB service**:
   * In the Azure Portal, click on "Create a resource".
   * Search for "Azure Cosmos DB" and select it from the results.
2. **Create a Cosmos DB Account**:
   * Click on "Create" to start the setup process.
   * Choose the desired API for your Cosmos DB account. Options include:
     + Core (SQL) - for SQL API
     + Azure Cosmos DB for MongoDB API
     + Cassandra
     + Azure Table
     + Gremlin (graph)
3. **Basic Settings**:
   * **Subscription**: Select your Azure subscription.
   * **Resource Group**: Select an existing resource group or create a new one.
   * **Account Name**: Enter a globally unique name for your Cosmos DB account.
   * **API**: Select the API you want to use (e.g., Core (SQL)).
   * **Location**: Choose the region where you want to deploy the account.
   * **Capacity mode**: Choose between Provisioned throughput or Serverless.
4. **Global Distribution**:
   * Configure the geo-replication options. You can add regions to replicate your data for high availability and low latency.
5. **Network**:
   * Configure the network options, such as Virtual Network integration and firewall rules to control access.
6. **Backup Policy**:
   * Choose a backup policy that suits your requirements (e.g., Periodic or Continuous).
7. **Tags**:
   * Add tags to organize your Azure resources.
8. **Review + Create**:
   * Review all the settings you have configured.
   * Click "Create" to provision the Cosmos DB account.

**Step 3: Configure the Database and Containers**

1. **Access the Cosmos DB Account**:
   * Once the account is created, navigate to the Cosmos DB account resource in the Azure Portal.
2. **Create a Database**:
   * In the left-hand menu, click on "Data Explorer".
   * Click on "New Database".
   * Enter a unique name for the database.
   * Set the throughput (Request Units per second) for the database. You can use the default shared throughput or configure dedicated throughput.
3. **Create a Container**:
   * After creating the database, click on "New Container".
   * Enter a unique name for the container.
   * Specify the partition key path. The partition key is essential for scaling and distributing data.
   * Set the throughput for the container if you didn’t set it at the database level.

**Step 4: Connect to Azure Cosmos DB**

1. **Get Connection String**:
   * In the Azure Portal, navigate to the "Keys" section of your Cosmos DB account.
   * Copy the URI and Primary Key for your Cosmos DB account.
2. **Connect Using SDK or Tools**:
   * Use the connection string details to connect to Cosmos DB from your application using the appropriate SDK.
   * For SQL API, you can use Azure Cosmos DB Explorer, Azure Data Studio, or any supported SDK (e.g., .NET, Java, Python).

Example connection string for SQL API:

json

Copy code

{

"AccountEndpoint": "https://<your-account-name>.documents.azure.com:443/",

"AccountKey": "your-primary-key"

}

**Step 5: Manage and Monitor**

1. **Monitor Performance**:
   * Use the "Metrics" section in the Azure Portal to monitor the performance, throughput, and latency of your Cosmos DB account.
2. **Set Alerts**:
   * Configure alerts to notify you of any issues or thresholds being reached.
3. **Scale Throughput**:
   * You can adjust the throughput settings for your databases and containers as needed.

By following these steps, you can successfully provision and manage an Azure Cosmos DB account through the Azure Portal. Let me know if you need further assistance!