Database Connectors

AppSynergy uses MariaDB for its SQL database. This means you can use standard MariaDB and MySQL connectors and software to access your database. The recommended connectors are linked below.

You will need to create an API Key to grant access to any external users. See *Tools > API Keys* for details.

Windows 64 bit ODBC

Click to download the MSI file. Be sure to enable *Force TLS Use* when configuring the DSN.

Java JDBC Driver

Click to download the JDBC driver.

All MariaDB Connectors

Click to visit the MariaDB Connector download page.

REST Service

You can also access your database via our REST API.

Query

Execute a SQL query and return the results in either JSON or CSV format. The Security Role assigned to the API Key determines what is accessible.

Request

```
POST https://www.appsynergy.com/api?action=EXEC_QUERY&apiKey=YOUR_API_KEY

{
  "sqlCmd": "SELECT * FROM MyTable",
  "responseFormat": "JSON"  -- enum: JSON, CSV
}
```

The *sqlCmd* can be any valid SQL query.

Response

If responseFormat was CSV:

```
Customer_ID,Name
1000,"Company A"
1001,"Company B"
```

If responseFormat was JSON:

```
{
  "status": "OK",
  "errorMessage": "",
  "errorCode": "",
  "data": {
    "columns": [
      {
        "tableName": "Customers",
        "columnName": "Customer_ID",
        "datatype": "BIGINT"
      },
      {
        "tableName": "Customers",
        "columnName": "Name",
        "datatype": "VARCHAR"
      }
    ],
    "rows": [
      {
        "values": [
          {
            "value": "1000"
          },
          {
            "value": "Company A"
          }
        ]
      },
      {
        "values": [
          {
            "value": "1001"
          },
          {
            "value": "Company B"
          }
        ]
      }
    ]
  }
}
```

The **data.rows** property is an array of row objects. Each row object has an array of value objects. Each value object has a value property. Therefore **data.rows[0].values[0].value** refers to the value in the first column of the first row.

Data Modification

Execute a SQL DML statement (e.g. INSERT, UPDATE, DELETE). The Security Role assigned to the API Key determines what can be modified.

Request

```
POST https://www.appsynergy.com/api?action=EXEC_DML&apiKey=YOUR_API_KEY

{
  "sqlCmd": "UPDATE MyTable SET MyCol = 123 WHERE ID = 100"
}
```

- *sqlCmd* - any valid SQL DML statement.

Response

```
{
  "status": "OK",
  "errorMessage": "",
  "errorCode": "",
  "data": {
    "rowsAffected": 1
  }
}
```

- *data.rowsAffected* - number of rows affected by the SQL statement.

API Limitations

Note that all API requests:

- Must provide their API Key via the URL (as shown) or via an HTTP header in *Bearer Authentication* format.
- Must complete in < 10 minutes to avoid a timeout.
- Must be < 16MB in size.
- Are rate limited to 500 connections per hour to prevent runaway usage. This is configurable via the API user's MAX_CONNECTIONS_PER_HOUR resource option.