

Connecting with Java


This guide explains how to establish a connection between a Java application and a Valkey database using the Jedis library. It walks through the necessary setup, configuration, and execution of a simple Valkey command.

Variables

Certain parameters must be provided to establish a successful connection to a Valkey database. Below is a breakdown of each required variable, its purpose, and where to find it. Here’s what each variable represents:

Variable	Description	Purpose
HOST	Valkey hostname, from the Elestio service overview page	The address of the server hosting your Valkey instance.
PORT	Port for Valkey connection, from the Elestio service overview page	The network port used to connect to Valkey. The default port is 6379.
PASSWORD	Valkey password, from the Elestio service overview page	The authentication key required to connect securely to Valkey.

These values can usually be found in the Elestio service overview details as shown in the image below, make sure to take a copy of these details and add it to the code moving ahead.

 **valkey**

Valkey

Cluster

Running

[Open terminal](#)[Delete cluster](#)[Add node](#)

Overview

Nodes

Backups

Audit

Termination protection

Disabled. VM can be powered off and terminated.

Protection deactivated

Auto-Failover

Enabled. In case of failure, the cluster will automatically attempt to recover

Auto-Failover activated

Nodes

2 Nodes: 1 Primary, 1 Replica

Add node

Database Admin

Display your database credentials

Hide DB Credentials

Host	valkey-u7774.vm.elestialo.app	
Port	26379	
User	root	
Password	*****	Show password
CLI	redis-cli -h valkey-u7774.vm.elestialo.app -p 26379 --user default --pass '*****'	Show password

Prerequisites

Install Java

Check if Java is installed by running:

```
java -version
```

If not installed, download it from [oracle.com](https://www.oracle.com/in/java/technologies/javase-downloads.html) and install.

Download Jedis and Dependencies

The Jedis library enables Java applications to interact with Valkey. You need to download two JAR files manually:

1. **Jedis JAR** (Jedis 5.1.0):
<https://repo1.maven.org/maven2/redis/clients/jedis/5.1.0/jedis-5.1.0.jar>
2. **Apache Commons Pool2 JAR** (Required by Jedis):

<https://repo1.maven.org/maven2/org/apache/commons/commons-pool2/2.11.1/commons-pool2-2.11.1.jar>

Place both JAR files in the same directory as your Java file.

Code

Once all prerequisites are set up, create a new file named Valkey.java and add the following code:

```
import redis.clients.jedis.JedisPooled;

public class Valkey {
    public static void main(String[] args) {
        String host = "HOST";
        int port = PORT; // e.g., 6379
        String password = "PASSWORD";

        JedisPooled jedis = new JedisPooled(host, port, password);

        try {
            jedis.set("testKey", "Hello Valkey");
            String value = jedis.get("testKey");

            System.out.println("Connected to Valkey");
            System.out.println("Retrieved value: " + value);

        } catch (Exception e) {
            System.out.println("Valkey connection or operation failed: " + e.getMessage());
        }
    }
}
```

To execute the script, open the terminal or command prompt and navigate to the directory where Valkey.java is located. Once in the correct directory, run the following commands:

On Linux/macOS :

```
javac -cp "jedis-5.1.0.jar:commons-pool2-2.11.1.jar" Valkey.java
java -cp ".:jedis-5.1.0.jar:commons-pool2-2.11.1.jar" Valkey
```

On Windows :

```
javac -cp "jedis-5.1.0.jar;commons-pool2-2.11.1.jar" Valkey.java  
java -cp ".;jedis-5.1.0.jar;commons-pool2-2.11.1.jar" Valkey
```

If the connection is successful, the terminal will display output similar to:

```
Connected to Valkey  
Retrieved value: Hello Valkey
```

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