

# UltraQuery v0.0.9 Documentation

## Release Info

Release Date: July 27, 2025

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GitHub: <https://github.com/krishna-agarwal44546/UltraQuery>

PyPI: <https://pypi.org/project/UltraQuery/>

## Overview

UltraQuery is a fast and lightweight Python module + CLI tool for:

- Reading .csv, .txt, and .sqlite files
- Viewing data or building DataFrame-like structures
- Plotting directly from terminal using CLI flags
- Powered by a custom C++ engine for high performance

## Installation

```
pip install ultraquery
```

## Python Usage

```
from ultraquery import UltraQuery

uq = UltraQuery.UltraQuery()
uq.viewdata("cars.csv", limit=20)
uq.df("cars.csv", limit=100)
uq.plot("cars.csv", xcol="year", ycol="price", graph_type="line")
```

## CLI Usage

```
ultraquery -f cars.csv -l 50 -df
ultraquery -f cars.csv -l 100 -plt -x year -y price -typ line
```

## CLI Flags

- -f: Path to CSV/SQL file
- -l: Limit number of rows to load
- -df: Show data as a table
- -plt: Enable graph plotting
- -x: Set X-axis column

# UltraQuery v0.0.9 Documentation

- -y: Set Y-axis column
- -typ: Type of plot (bar, pie, etc.)
- -sql: Enable SQLite mode
- -table: Specify SQLite table
- -col: View column list
- -vc: View raw column data

## Available Functions

- viewcolumn(file): List columns from a CSV
- viewdata(file, n): Display top n rows
- df(file, n): Load data into custom frame structure
- viewsql(file, table, n): Load rows from SQLite table
- plot(file, x, y, typ): Plot the selected columns

Supported plot types: bar, line, scatter, pie, histogram

## Example

```
ultraquery -f sales.csv -l 100 -plt -x month -y revenue -typ bar
```

## Features

- Ultra-fast CSV reading via C++ engine
- Native Python class interface
- CLI for quick data exploration
- Easy-to-use plotting with matplotlib
- SQLite table reading support

## Engine Details

- Uses native shared library (engine.dll / engine.so)
- Loaded via ctypes
- Engine functions: readcsv, columnsget, getdata, dataframe

## Contributors

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