

# Morph-Project-Examples

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## Ex-1-Connecting MySql Database and Showing Data on Markdown + Plotting a Bar graph with Plotly

### SQL Code

1. Use DUCKDB to read CSV files much faster + easier!!!

```
{{
    config(
        name = "testing_data_iowa_housing_prices",
        connection = "DUCKDB"
    )
}}

select
    SquareFeet as SquareFeet,
    SalePrice as SalePrice
from
    read_csv_auto("./data/IowaHousingPrices.csv")
```

### Python Function to Plot Data

```

import pandas as pd
import plotly.express as px
import morph
from morph import MorphGlobalContext

@morph.func
@morph.load_data("testing_data_iowa_housing_prices") # SAME NAME AS SQL
CONFIG
def testing_ShowData(context: MorphGlobalContext):
    df = context.data["testing_data_iowa_housing_prices"] # SAME NAME AS
    SQL CONFIG

    # Plot Bar Graph as a Figure to visually represent Data
    fig = px.bar(df, x="SquareFeet", y="SalePrice")
    return fig

```



## Markdown Webpage Code

```

import { defineState } from '@morph-data/components';
export const { chartType } = defineState({ chartType: 'stacked' });
export const title = "Loading CSV into SQL and Showing Data"

# Showing Data from SQL

Hello! This is a starter app.

1. Here in loadData="str", str will be the sql config name we set
2. Here in loadData="str", str will be the python function name/alias we
set

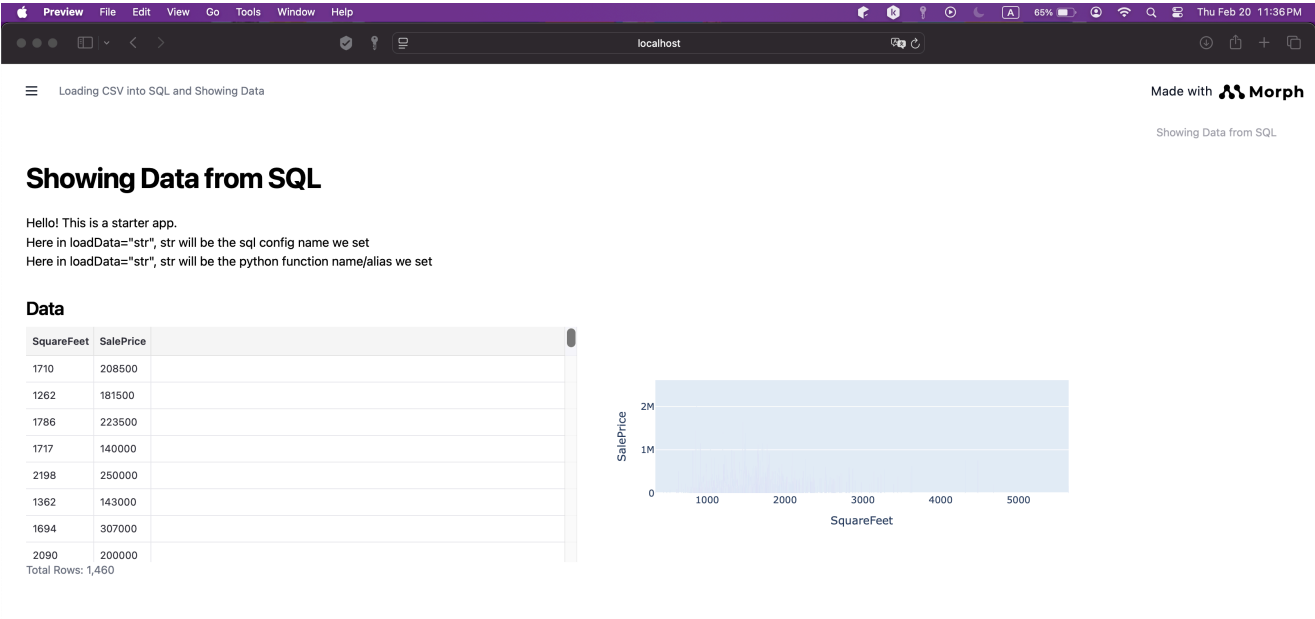
## Data

<Grid cols="2">
  <div>
    <DataTable loadData="testing_data_iowa_housing_prices" height={300} />
    <!--1. Here in loadData="str", str will be the sql config name we set-->
  </div>
  <div>
    <Embed loadData="testing_ShowData" height={300} />
    <!--2. Here in loadData="str", str will be the python function
name/alias we set-->
  </div>

```

</Grid>

# Output



Screenshot 2025-02-20 at 11.36.18 PM.png