



CS3249 Project

Map Widget

dG

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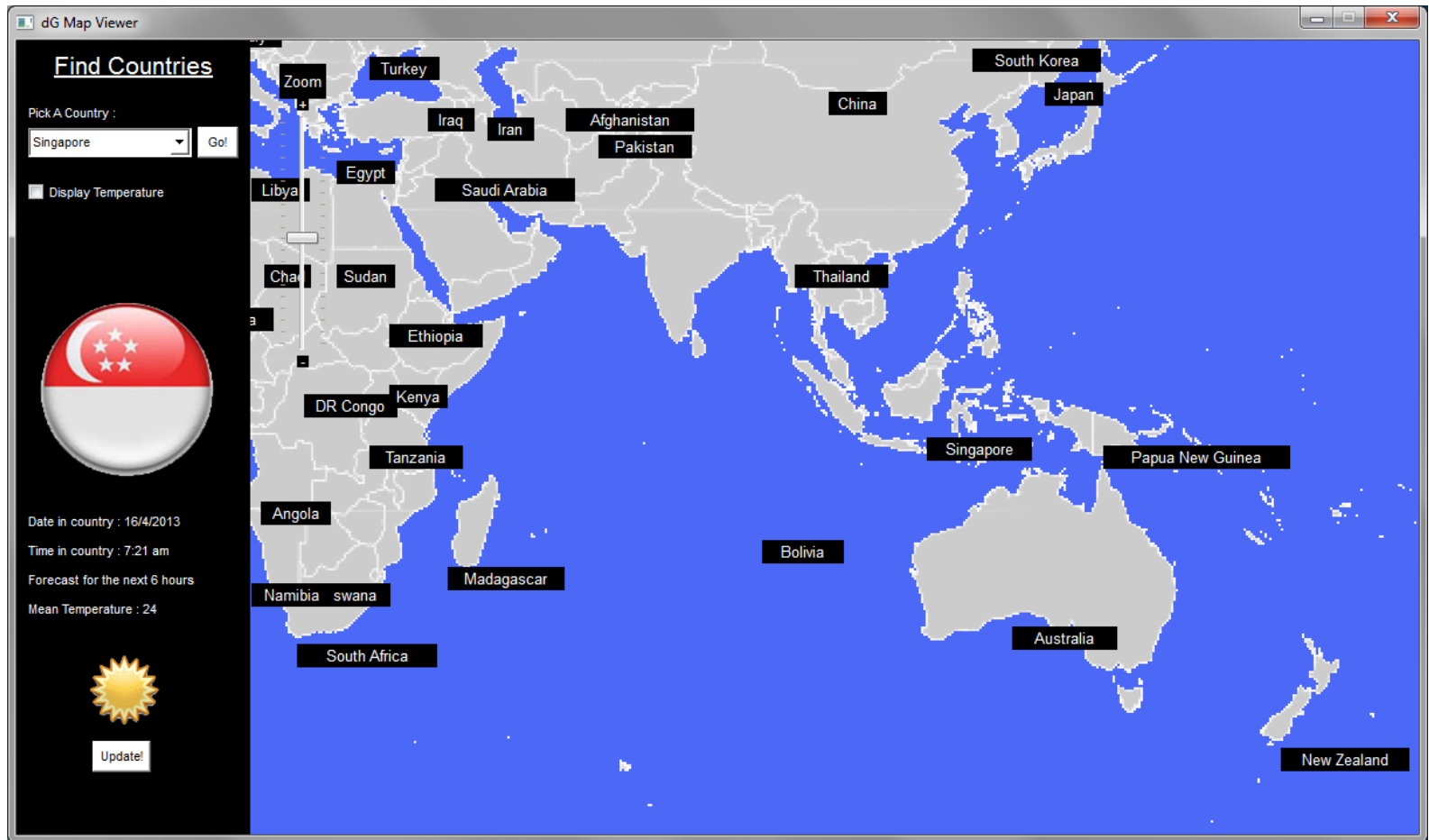
Project Outline

- Map Widget for Climate
- Client-Server Application
- The application gives the basic meteorological data of the country that is selected
- Developed for users who want to know time/weather/temperature of countries around the world

Major Design Principles

- Singleton creation pattern
- Observer behavioral pattern (Event triggered)
- Loose coupling
- Constraint user input and catch errors instead of throwing them

GUI Overview



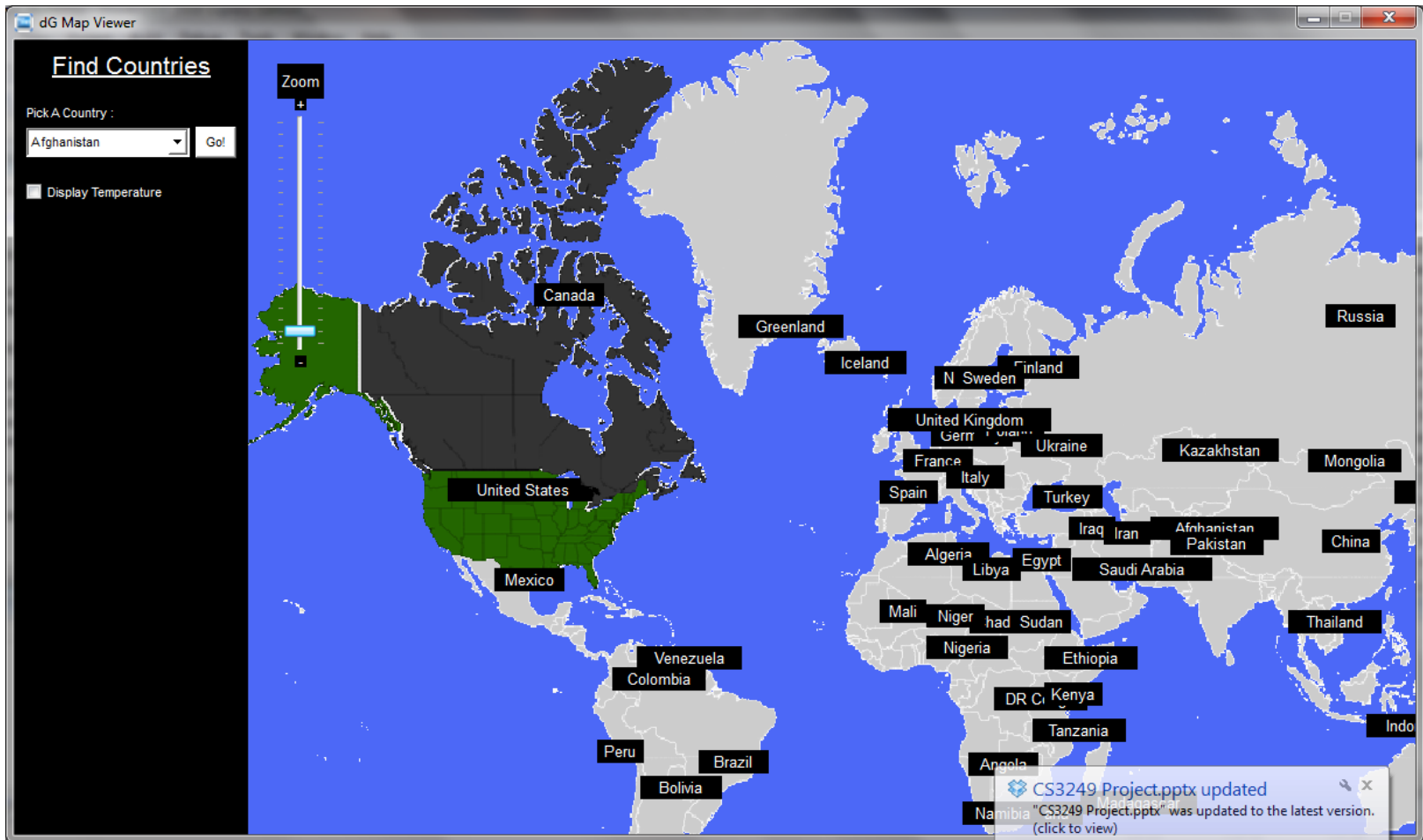
Major Functionalities

- Map Widget
- Search Widget
- SQL database querying with QT
- Time tracking for implemented countries

Map Widget

- Basic Map Operations
- Slider
- Country Selector
- Dynamic Labels

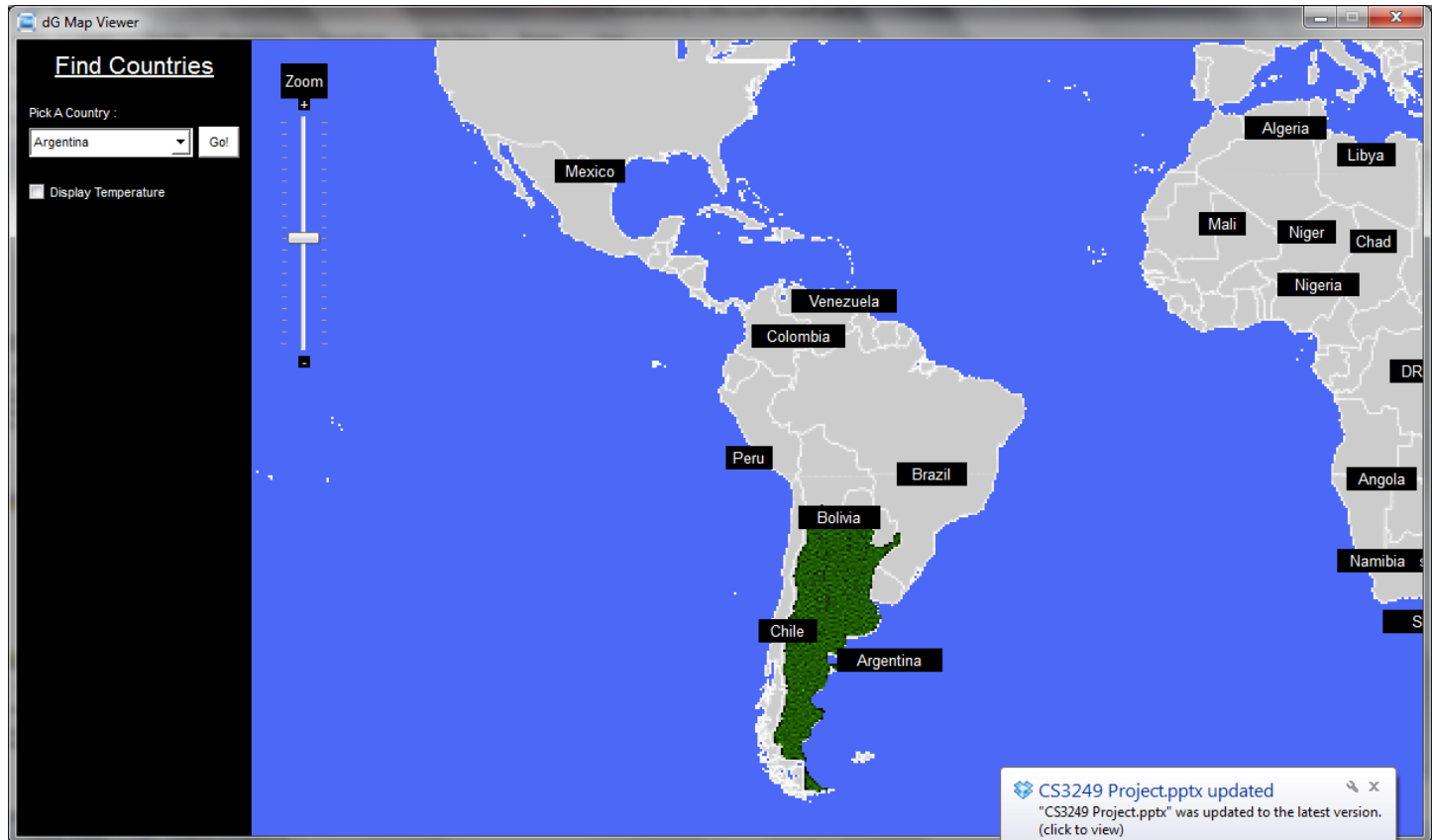
Map Widget



Search Widget

- Allows users to quickly pan and zoom to the selected country on the world map
- Location Highlighted
- Display Options

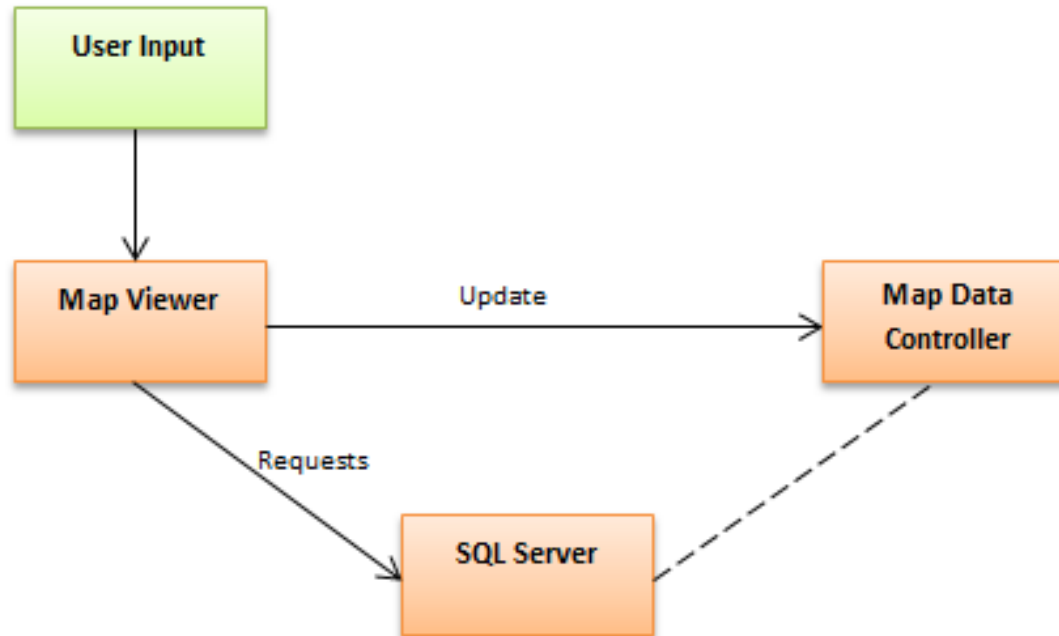
Search Widget



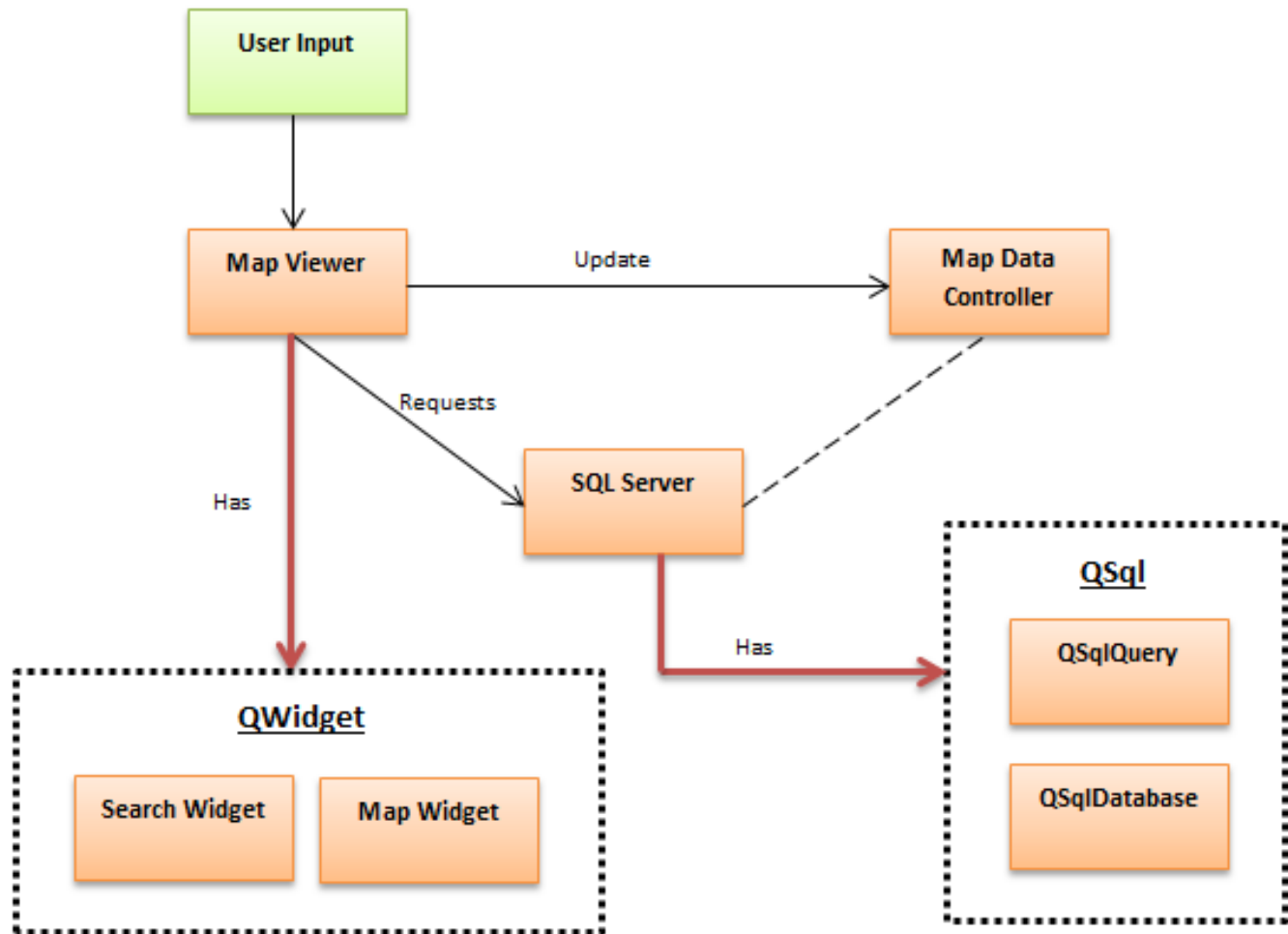
System Architecture

- QT Model-View
 - Prioritize the decoupling of model and view
 - Efficient update of view
 - SQL queries = delegate (No need to work if not called upon)

System Architecture



System Architecture





Demo!

References

- Map Segmentation Links
- www.ammmap.com/download/
- Geo Data
- <https://opendata.socrata.com/dataset/Country-List-ISO-3166-Codes-Latitude-Longitude/mnkm-8ram>