Accuracy Assessment of Forecasting Services

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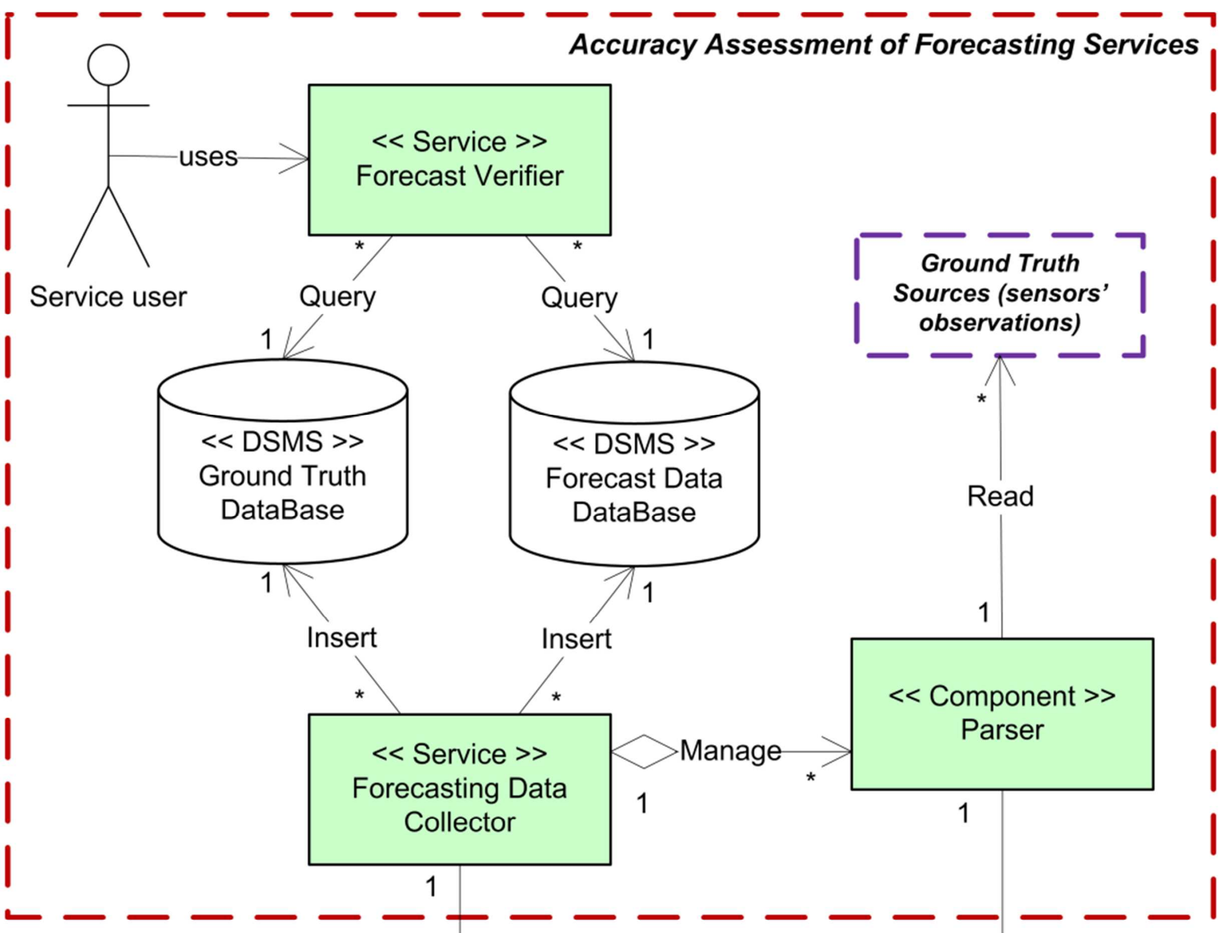
Goal: to measure how accurate are forecasting services (such as weather forecast, stock market prediction, prediction of results in betting shops…) in a service-oriented framework.

Research objectives:

- **to identify if there are frameworks which measure how accurate forecasting (web) services are;**
- **to determine which are the main quality criteria used to evaluate predicting services;**
- **to identify the domain in which such frameworks are being applied;**
- **to identify the current knowledge about parameters that determine prediction's accuracy.**

A proof-of-concept for the weather forecast domain



- **The "Forecast Verifier" web service assess web services and makes a ranking of web services based on their accuracy. To verify the correctness of forecasting services, it compares predictions with real observations. To do it, the mean squared error and the approximation error are used.**

- **The "Forecasting Data Collector" web service collects both ground truth and predictions. To do so, it manages parsers. To save observations into the database, only a parser which calls a reliable external source is needed. On the other hand, to collect predictions, the forecasting data collector uses the monitor service of SALMon.**

- **The "Monitor" web service measures the values in execution time of dynamic quality attributes (like response time or availability) and the response for every request to the web services.**

- **"Forecasting Web Services" provide weather forecasts. The forecasting services currently considered are: Weather Bug Web Services, RSS Yahoo Weather, Open data Meteocat, and Aemet.**

- **Tool available on: http://gessi.lsi.upc.edu/accuracyassessment/**