Empezando con DataSnap para Windows y Linux 64 bits

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AGENDA

- Arquitectura Multicapa
- DataSnap
  - Conceptos Generales
  - Modelos Soportados
  - Estándar REST/JSON
- Demos

ARQUITECTURA MULTICAPA

Presentation tier

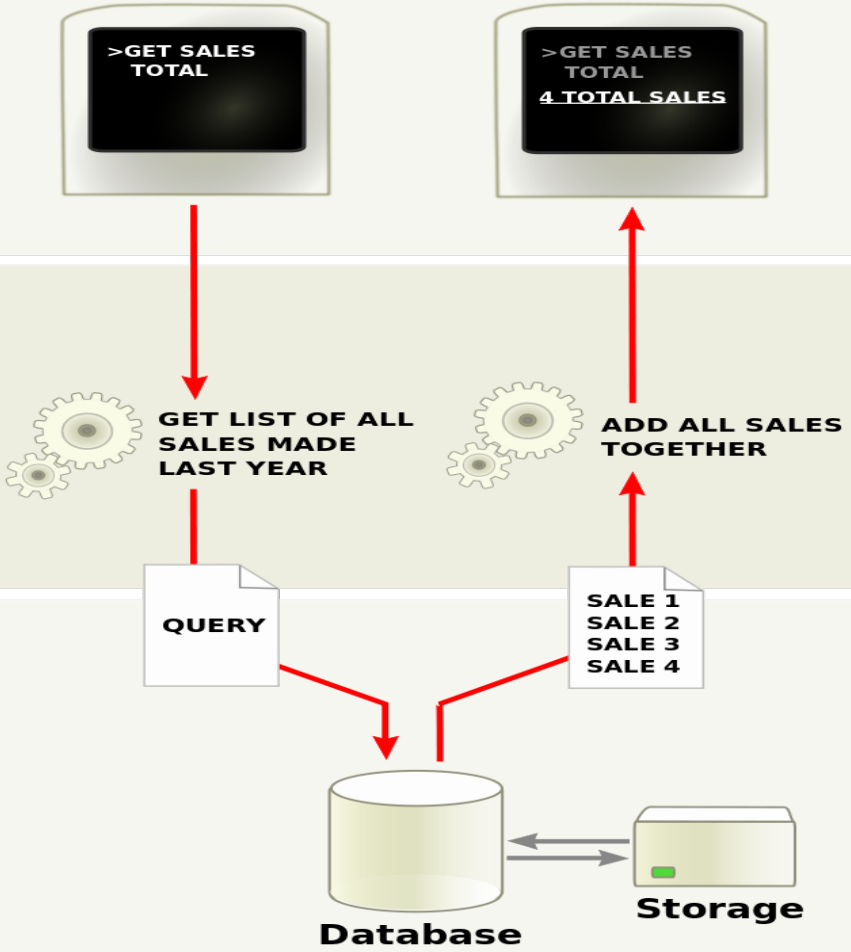
The top-most level of the application is the user interface. The main function of the interface is to translate tasks and results to something the user can understand.

Logic tier

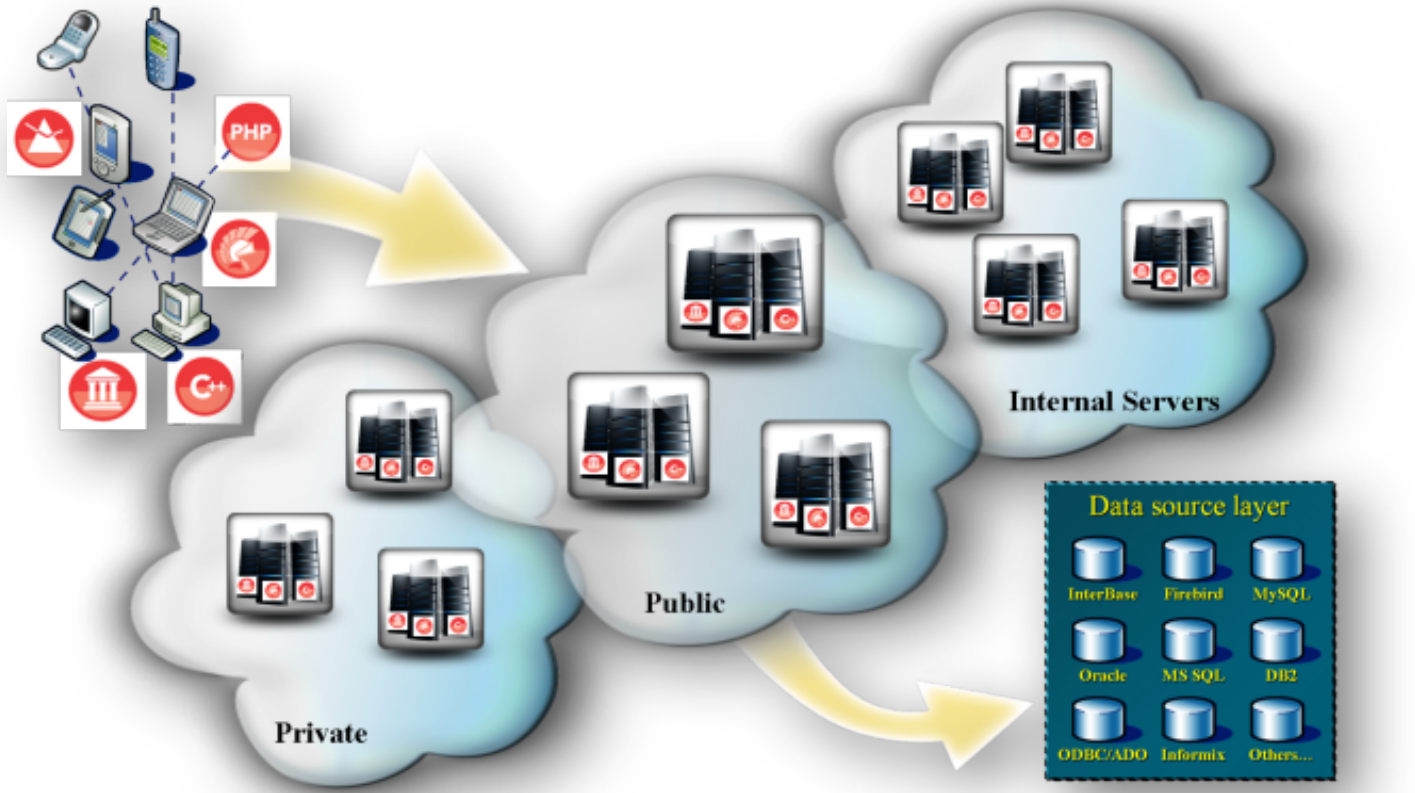
This layer coordinates the application, processes commands, makes logical decisions and evaluations, and performs calculations. It also moves and processes data between the two surrounding layers.

Data tier

Here information is stored and retrieved from a database or file system. The information is then passed back to the logic tier for processing, and then eventually back to the user.



DATASNAP



CONCEPTOS GENERALES

- Inicialmente conocido como MIDAS
- Aplicación **Server**
  - Delphi e C++ Builder
- Aplicación **Cliente**
  - Delphi, C++ Builder
  - Cualquier plataforma - de acuerdo con el protocolo elegido
- Diferentes arquitecturas y protocolos a través del tiempo
  - COM/DCOM, TCP/IP (Socket), HTTP/HTTPs, REST/JSON

MODELOS SOPORTADOS

- MIDAS (IAppServer)
  - COM/DCOM
  - SOCKET (TCP/IP)
- SQLConnection (TSQLConnection)
  - TCP/IP
  - HTTP, HTTPs
- RestConnection (TDSRestConnection)
  - HTTP, HTTPs

ESTÁNDAR REST/JSON

- Arquitectura (no es un protocolo)
- **Re**presentational **S**tate **T**ransfer
- Consolidado y soportado por todas las plataformas modernas
  - Desktop, Mobile e WEB
- Un protocolo cliente/servidor sin estado: cada mensaje HTTP contiene toda la información necesaria para comprender la solicitud
- Un conjunto de operaciones bien definidas
  - POST, GET, PUT e DELETE

ESTÁNDAR REST/JSON

- Cada recurso (o método) REST tiene su propio identificador
  - **GET** http://jsonplaceholder.typicode.com/posts/1
- Notación **JSON** (**J**avaScript **O**bject **N**otation)
  - Más sencillo y ligero en comparación con XML

```
/* will return
{
  id: 1
  title: 'foo',
  body: 'quia et suscipit [...]',
  userId: 1
}
*/
```

DEMOS

Recursos Adicionales

- **Documentación**
  - http://docwiki.embarcadero.com/RADStudio/Seattle/en/DataSnap_Overview_and_Architecture
  - http://docwiki.embarcadero.com/RADStudio/Berlin/en/Developing_DataSnap_Applications
  - http://docwiki.embarcadero.com/RADStudio/Seattle/en/Tutorial:_Using_a_DataSnap_Server_with_an_Application
  - http://docwiki.embarcadero.com/RADStudio/Seattle/en/Tutorial:_Using_a_REST_DataSnap_Server_with_an_Application
  - http://docwiki.embarcadero.com/RADStudio/Berlin/en/Tutorial:_Using_a_REST_DataSnap_Server_with_an_Application_and_FireDAC

Recursos Adicionales

- **Blogs e Tutoriales**
  - https://pt.wikipedia.org/wiki/Arquitetura_multicamada
  - http://www.slideshare.net/hburakcetinkaya/rest-res-tful-web-services
  - http://etutorials.org/Programming/mastering+delphi+7/Part+III+Delphi+Database-Oriented+Architectures/Chapter+16+Multitier+DataSnap+Applications/
  - http://www.slideshare.net/kmerlotti/datasnap-avanado-respostas-para-um-sistema-robusto-embarcadero-conference-2015
  - https://www.embarcadero.com/rad-in-action/datasnap-xe
  - https://www.embarcadero.com/rad-in-action/delphi-labs
  - https://www.embarcadero.com/rad-in-action/datasnap-rest

Recursos Adicionales

- **Configuración Ubuntu y RedHat**
  - http://chapmanworld.com/2016/12/29/configure-delphi-and-redhat-or-ubuntu-for-linux-development/
- **Configuración Interbase Linux 64**
  - https://community.embarcadero.com/blogs/entry/installing-interbase-xe7-on-linux

GRACIAS!

Preguntas?

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