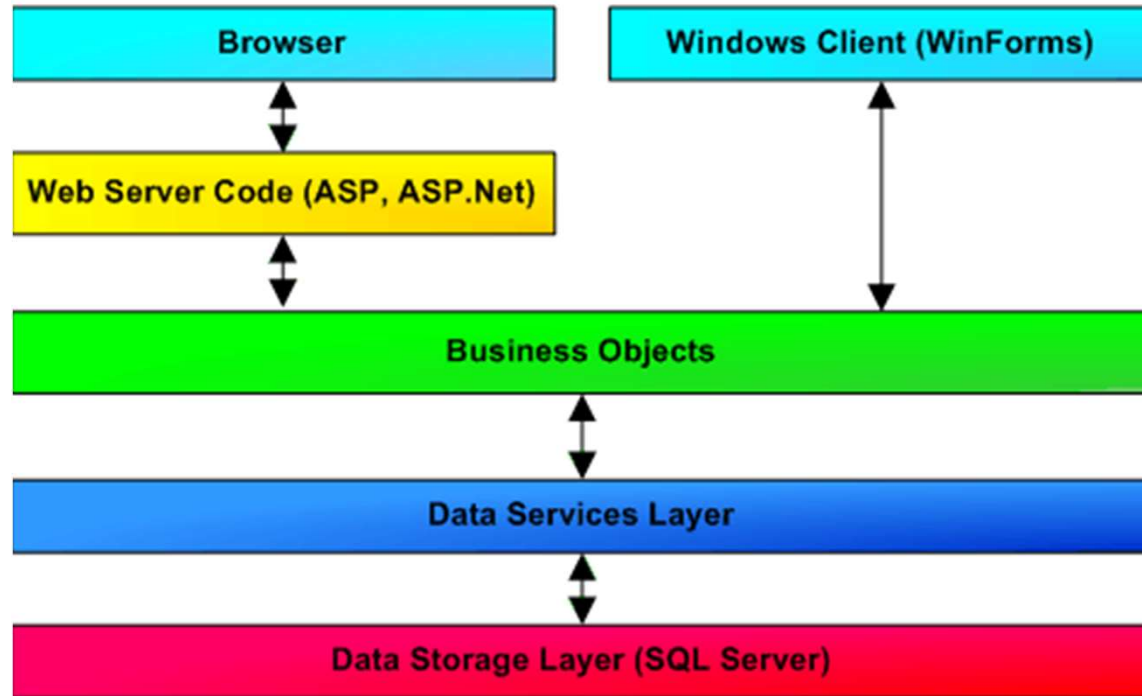# Projeto parte III
(enquadramento)

Programando em camadas

Programando em camadas

vantagens vs desvantagens

Programando em camadas

- Porquê usar stored procedures?
  - Remove o código SQL das outras camadas do aplicativo
  - Previne ataques SQL injection
  - Evita procura e modificações de dados

CRUD

CRUD

- **C**reate, **R**ead, **U**pdate e **D**elete

Create	Read (Retrieve)	Update	Delete (Destroy)
INSERT	SELECT	UPDATE	DELETE

CRUD

- Mapear entidades
com casos de utilização

Use Case / Entity	Order	Chemical	Requester	Vendor Catalog
Place Order	C	R	R	R, L
Change Order	U, D		R	R, L
Manage Chemical Inventory		C, U, D		
Report on Orders	R	R, L	R, L	
Edit Requesters			C, U, L	

https://www.slideshare.net/VenkadeshNarayananMB/identifying-stakeholders

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CRUD

- Mapear entidades
com casos de utilização

Data Entity	CRUD	Resulting Use Case
Customer	Create	Add New Customer
	Read/Report	Find Customer
		Generate Customer List
	Update	Update Customer Information
	Delete	Delete inactive customer
Order	Create	Create New Order
	Read/Report	View Order
		View Order History
	Update	Update Order
	Delete	Cancel Order

https://businessanalystlearnings.com/ba-techniques/2013/3/13/techniques-for-identifying-use-cases
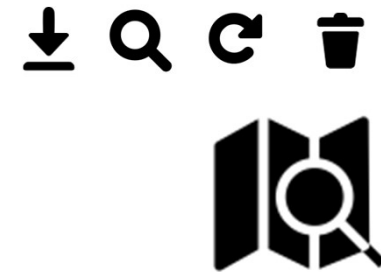
CRUD

- Mapear entidades com funcionalidade

Entity Process	Customer	Customer Order	Customer Account	Customer Invoice	Vendor Invoice	Product
Receive Customer Order	R	C	CR			
Process Customer Order	CRU		RU			R
Maintain Customer Order	U		U		RU	
Terminate Customer Account	U		U		RU	
Fill Customer Order	RU		RU			RU
Ship Customer Order			U		C	
Validate Vendor Invoices					R	
Pay Vendor Invoices					RU	
Invoice Customer	RU		RU	C		
Maintain Inventory						CRUD

http://it.toolbox.com/blogs/enterprise-solutions/building-crud-diagrams-15327

CRUD

- ## Mapear entidades com funcionalidade

Business Activity Names	Arrest Event	Arresting (Booking) Officer	Associate	Biometrics	Booking Event	Detention Location	FBI ID Record "Rap Sheet"	Judicial Case	Subject	Technology Resources	Vehicles
Component Level Activities											
Create a New Booking Record	R*	R*	C	C	C	R*	C	R*	C		C
Update an Existing Booking Record	R	R	RUD	RUD	RUD	R	RUD	R	RUD		RUD
Query JABS/IAFIS for Existing Booking Information	R	R	R	R	R	R	R	R	R		R
Manage the Component Level Booking Station										CRUD	
Department-Level Activities											
Provide Department-wide Program Management for JABS										CRUD	
Provide Department-wide Technical Support for JABS										CRUD	

Data Entities

Legend: C - Create,   R - Reference,   U - Update,   D - Delete

* Some data entities are created by activities that are out of the scope of this analysis

https://www.justice.gov/archive/jmd/irm/imss/2002itplan/appendix_f.htm

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CRUD

- Matrizes CRUD permitem a análise de:
  - Rastreabilidade
    - Existe pelo menos um CRUD para cada entidade?
    - Cada funcionalidade interage com pelo menos uma entidade?
  - Cobertura
  - Cluster

Projeto parte III