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## Introduction

The solution was structured on 2 different applications:

1. JsonServices App: used to provide restful web methods to all the client applications and cut direct access to the database

All the applications was made it separately to give the ability to run every process on different server, machine, etc

## Dependency application diagram



# Application Design

## Json Services

This application uses the rest api “Casa Blanca” to provide json methods to the client applications, also this app is the only one with direct access to the database.

## Arguments

[Connection String] [Service Address]

The application receive two arguments

1. Connection string: is the database connection string, used to establish a connection to a MS SQL data base. Example: “DRIVER={SQL Server};Server=127.0.0.1,1433;Database=pcstats;UID=sa;PWD=elmismo;”
2. Service Address: It is the address through which the application would provide services. Example: http://localhost:1984

## Services Provided

All the services have a respective store procedure in the database; these services are used to communicate the clients with the database without direct connection in order to ensure security.

## Example Methods

1. Search Vehicle: Method to execute searches into the database, after the values are returned the query will be stored in the database.

Json Definition

```
{
  "method": "SearchVehicle",
  "parameters": {
    "make": "<param_value>",
    "model": "<param_value>",
    "owner": "<param_value>",
    "registration": "<param_value>",
    "text": "<param_value>"
  }
}
```

## Return value

All the methods return the same structure and this is defined on json format, is It is made up of the following fields:

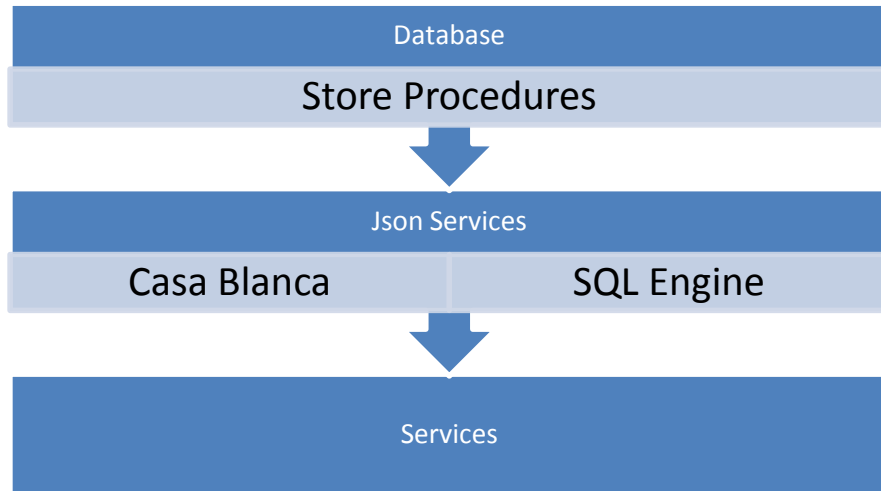
- Data: Stores all the data rows.
- Header: Stores all the column names.
- Result: Stores the result value:
  - Value 0: Execution complete

Json Definition

```
{
  "Data": [ <Rows> ],
  "Header": [ <Column Names> ],
  "Result": <Return Value>
```

}

### Diagram



### Workflow Diagram

