

# Software Design Patterns and Methodology Cheat Sheet by sdm7306 via cheatography.com/51374/cs/14062/

## MVC

Model stores data that is retrieved from commands by the

controller.

View generates new outputs based on changes in the model.

Controller : interactions between the model and view

#### WSDL

Web Services Description Language, describes the functionality offered by a web service. Provides a machine-readable description of how the service can be called, parameters, data structure returns.

#### Sinaleton

A software design pattern that restricts the instantiation of a class to one object. This is useful when exactly one object is needed to coordinate actions across the system. Private or protected constructor with a public static method to retrieve the instance.

# **Factory Method**

Define an interface for creating an object, but let subclasses decide which class to instantiate. Factory Method lets a class defer instantiation to subclasses

#### REST

Representational State Transfer, a way of providing interoperability between computer systems on the Internet. REST-compliant Web services allow requesting systems to access and manipulate textual representations of Web resources (XML, HTML, JSON) using a uniform and predefined set of stateless operations.

# DevOps

Strongly advocate automation and monitoring at all steps of software construction, from integration, testing, releasing to deployment and infrastructure management. Aims at shorter dev cycles, increased deployment frequency, more dependable releases, in close alignment with business objectives.

# Definition of Isomorphic

Corresponding or similar in form and relations.

# **Hypertext Transfer Protocol**

The Hypertext Transfer Protocol (HTTP) is an application protocol for distributed, collaborative, and hypermedia information systems

#### **GET**

The GET method requests a representation of the specified resource.

Requests using GET should only retrieve data and should have no other effect.

## **HEAD**

The HEAD method asks for a response identical to that of a GET request, but without the response body. This is useful for retrieving meta-information written in response headers, without having to transport the entire content.

### **POST**

The POST method requests that the server accept the entity enclosed in the request as a new subordinate of the web resource identified by the URI. The data POSTed might be, for example, an annotation for existing resources; a message for a bulletin board, newsgroup, mailing list, or comment thread; a block of data that is the result of submitting a web form to a data-handling process; or an item to add to a database.

#### PUT

The PUT method requests that the enclosed entity be stored under the supplied URI. If the URI refers to an already existing resource, it is modified; if the URI does not point to an existing resource, then the server can create the resource with that URI.

#### DELETE

The DELETE method deletes the specified resource.

## Continued

# TRACE

The TRACE method echoes the received request so that a client can see what (if any) changes or additions have been made by intermediate servers.

## **OPTIONS**

The OPTIONS method returns the HTTP methods that the server supports for the specified URL. This can be used to check the functionality of a web server by requesting '\*' instead of a specific resource.

## CONNECT

The CONNECT method converts the request connection to a transparent TCP/IP tunnel, usually to facilitate SSL-encrypted communication (HTTPS) through an unencrypted HTTP proxy.

# PATCH

The PATCH method applies partial modifications to a resource.

All general-purpose HTTP servers are required to implement at least the GET and HEAD methods,[22] and, whenever possible, also the OPTIONS method

