REST stands for Representational State Transfer.

It is a standard form of communication between computer systems on the web in a RESTful manner, which is characterized by statelessness. This means that changes on the client side will not lead to any changes on the server side.

As long as both sides have a standard format of messages between each other, they can be separate and allow for flexibility and scalability on the server side, because multiple clients can interact with it, independently without affecting each other.

Making Requests

REST requires that a client make a request to the server in order to retrieve or modify data on the server. A request generally consists of:

- an HTTP verb, which defines what kind of operation to perform
- a *header*, which allows the client to pass along information about the request
- a path to a resource
- an optional message body containing data

HTTP Verbs

There are 4 basic HTTP verbs we use in requests to interact with resources in a REST system:

- GET — retrieve a specific resource (by id) or a collection of resources
- POST — create a new resource
- PUT — update a specific resource (by id)
- DELETE — remove a specific resource by id

We can use ServiceNow's API Explorer to see the response body, which displays to us objects for a desired record. Each object would represent fields, such as incident number, sys_id or short description.

ANGULARJS

A module is a container of the different parts of the application, such as the controllers and directives. It defines the functionality of the application via the ng-app directive.

A directive is a marker on a DOM element that allows us to attach a behavior to that element.

The **DOM** (**Document Object Model**) is an API that displays the HTML elements as objects. The programmer may manipulate the DOM in order to modify a web page instantaneously while it is being viewed by the user.

The most popular language for DOM is JavaScript. Using JavaScript allows for dynamic changes to be made to the DOM, including hiding, moving, and animating certain HTML elements (such as text, tables, images, and entire divisions).

The scope is an object that provides context for expressions. It watches for changes made to the model and helps to generate them on display for the user to view.

An expression is a single unit of code that is placed in bonds between tags.

A service is an object that is added as a dependency for a component, such as controller, directive, or other services. It is used to organize and share code across the defined application.

AngularJS extends HTML with ng-directives:

The **ng-app** directive tells us that an element, such as div, is the owner of the app.

The **ng-model** directive takes the data we manipulate with the HTML **control**, such as input type text, and connects it to the model.

The **ng-bind** directive takes the data from the model and displays it on **view** for the end user.