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### 1 – JS Frameworks list :

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Here is a list of popular JS Frameworks :

1. Prototype.js – This is very useful for creating Javascript objects.
2. JQuery – DOM manipulation independent of browser. Removes browser dependencies. This is the one that started it all.
3. RequireJS – Describes the Asynchronous Module Definition Framework. Contains some very useful functions like import, include, define and define. These can be used to Object Oriented concepts to the javascript world and to create modules and neatly package code.
4. KnockoutJS – This is being pushed heavily by Microsoft recently specially by John Papa who is the MVP for SPA apps. His Hot Towel Template uses this and it can be used for ASP.NET MVC Applications. There is a Hot Towellete version also for webforms if needed.
5. Durandal – This is great for setting up the MVVM pattern for Javascript. You can create your viewmodels using it. It has a Shell.js and inside that the various views get loaded and swapped out just like in the WPF world.
6. AngularJS – It is being promoted by Google. They recently built a 70K lines of code application using it. It has really powerfull declarative binding.
7. Modernizr – A must have for modern API building with HTML5.
8. SignalR – Great for doing push notifications and realtime processing.
9. Newtonsoft.Json – Used for serving JsonResult and making Ajax calls to Web API.
10. Upshot.js – Good library for setting up data providers to use against Web Api data services.
11. Backbone.js – Not recommended, does MVVM but you have to write a lot of boiler plate code. Good for large projects.
12. History.js – Great for mobile development and navigation.
13. Grunt.js – Great for BDD and automation.
14. Breeze.js – good for setting up work in progress and progressive saving to local storage. Has nice EntityManager API for setting up client side database calls.

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## 2 – Client side Libraries :

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jquery-1.5-vsdoc.js	jquery-1.5.1.js	jquery-ui-1.8.11.js	jquery.unobtrusive-ajax.js
jquery.validate.js	MicrosoftAjax.debug.js	MicrosoftAjax.js	jquery.validate.unobtrusive.js
MicrosoftMvcAjax.js	MicorosoftMvcAjax.debug.js	Modernizer-1.7.js	MicrosoftMvcValidation.js
respond.js			

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## 3 – Prototype.js (7000 lines) :

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Provides libraries for Ajax, DOM and OOP. Extends javascript. It has no dependencies on other scripts.

Ajax.PeriodicalUpdater	Ajax.Request	Ajax.Response	Ajax.Updater
\$	\$\$	\$F	Class.Create
Array	Function		

## 4 – Angular.js :

Topics are directives, services, filters, providers, types, global APIs and testing mocks.

Functions ( use Angular.* syntax to call)					
bind	bootstrap	copy	element	equals	extend
forEach	fromJson	identity	injector	isArray	isDefined
isElement	isFunction	isNumber	isObject	isString	isUndefined
lowercase	module	noop	toJson	uppercase	

Directives					
a	form	input	ngApp	ngBind	ngBindHtml
ngBindTemplate	ngBlur	ngchanged	ngChecked	ngClass	ngClassEven
ngClassOdd	ngClick	ngCloak	ngController	ngCopy	ngCSP
ngCut	ngDbclick	ngDisabled	ngFocus	ngForm	ngHide
ngHref	ngIf	ngInclude	ngInit	ngKeydown	ngKeyPress
ngKeyup	ngList	ngModel	ngModelOptions	ngMouseDown	ngMouseenter
ngMouseleave	ngMouseMove	ngMouseover	ngMouseup	ngNonBindable	ngOpen
ngPaste	ngPluralize	ngReadonly	ngRepeat	ngSelected	ngShow
ngSrc	ngSrcset	ngStyle	ngSubmit	ngSwitch	ngTransclude
ngValue	script	select	textarea		

Types			
angular.Module	\$CacheFactory.Cache	form.FormController	ngModel.ngModelController
\$rootScope.Scope	\$compile.directive.Attributes		

Services					
\$anchorScroll	\$animate	\$cacheFactory	\$compile	\$controller	\$document
\$exceptionHandler	\$filter	\$http	\$httpBackend	\$interpolate	\$interval
\$locale	\$location	\$log	\$parse	\$q	\$rootElement
\$rootScope	\$sce	\$sceDelegate	\$templateCache	\$timeout	\$window

Providers					
\$animateProvider	\$compileProvider	\$controllerProvider	\$filterProvider	\$interpolateProvider	
\$locationProvider	\$logProvider	\$parseProvider	\$rootScopeProvider	\$sceDelegateProvider	
\$sceProvider					

Filters					
currency	date	filter	json	limitTo	lowercase
number	orderBy	Uppercase			

Miscellaneous Things					
ngRoute	ngAnimate	ngResource	ngCookies	ngTouch	ngSanitize
ngMock					

## RESOURCES :

<http://docs.angularjs.org/api/ng>

## 5 – ExtJS :

Version 4 released by Sencha.

Ext API					
app	button	chart	container	data	dd
direct	draw	flash	form	fx	grid
layout	menu	panel	picker	resizer	selection
slider	state	tab	tip	toolbar	tree
util	ux	view	window		

Ext Base Classes				
AbstractManager	AbstractPlugin	Action	Ajax	Array
Base	Class	ClassManager	Component	ComponentLoader
ComponentManager	ComponentQuery	CompositeElement	CompositeElementLite	Date
DomHelper	DomQuery	Editor	Element	ElementLoader
Error	EventManager	EventObject	FocusManager	Function
Img	is	JSON	Layer	Loader
LoadMask	MessageBox	ModelManager	Number	Object
PluginManager	ProgressBar	Shadow	String	supports
TaskManager	Template	Version	WindowManager	XTemplate
ZindexManager				

Miscellaneous Objects					
Array	Boolean	Date	Function	Number	Object
RegExp	String				

## RESOURCES :

<http://docs.sencha.com/extjs/4.0.7/#!/api>

## 6 – Modernizr :

Download the library from <https://modernizr.com/download>

This library is very helpful for multiple browser support and legacy browser support. It detects which features are available in the User's Browser and provides missing features for older browsers. The latest version of this library can be installed as a nuget package using the command below :

```
// npm install -g modernizr
```

Modernizr.on(feature,cb)	Modernizr.addTest( )	Modernizr.atRule(prop)	Modernizr._domPrefixes
Modernizr.hasEvent('blur')	Modernizr.mq( )	Modernizr.prefixed(prop)	Modernizr.prefixedCSS(prop)

This library is very easy to use. Just download a link to the library and add it your page. It also comes as part of Visual Studio Project Templates now. Use Browserscope a build a list of features you would like to serve on your page and you can hide/show things using Modernizer object.

## Browserscope

modernizr2.0.4						
Top Browsers	Compare UAs	Sparse filter				
UserAgent	applicationcache	audio:m4a	audio:mp3	audio:ogg	audio:wav	
Chrome 32						
Firefox 26						
IE 9						
IE 10						
IE 11						
Safari 7.0.1						
Chrome 34						
Firefox 27						
Android 2.3						
Android 4						
Blackberry 7						
Chrome Mobile 18						
IEMobile 9						
IEMobile 10						
iPhone 7						

Browserscope thinks you are using Chrome 49.0.2623

Go to this URL to see list of features which are supported in a particular browser : <http://caniuse.com/>

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*7 – JQuery.js :*

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Download the library from <https://jquery.com/download/>

This library is very helpful for multiple browser support and legacy browser support. It detects which features are available in the User's Browser


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*8 – knockout.js, knockout.validation :*

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*9 – Require.js & Asynchronous Module Definition (AMD) :*

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*10 – upshot.js :*

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It is used to create view models on Form Load and fill them with data so they can be uploaded to ASP.NET MVC using Post method. This library has been discontinued by Microsoft and it has been replaced with Breeze JS.

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*11 – history.js :*

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*12 – Hot Towel :*

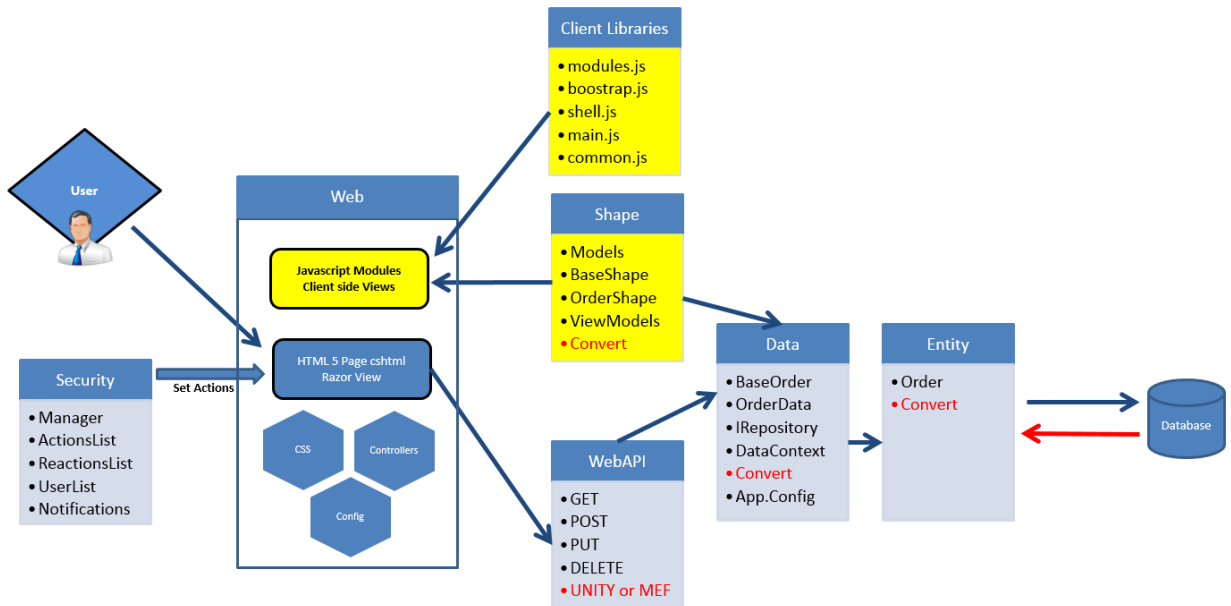
---


13 – Durandal :


14 – Backbone.js :


15 – SPA Architecture :

SPA Architecture for ExtJS.





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*14 – References for further reading :*

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Here are some useful references

<http://mediaqueri.es/>

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*15 – Code Snippets :*

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Some C# code snippets that are useful

```
// To Do
```