07. GOOGLE MAPS Reference.

7.1. The Map() Constructor

Create a Google Map:

Example:

```
var map = new google.maps.Map(mapCanvas, mapOptions);
```

7.2. Definition and Usage

The Map() constructor creates a new map inside a specified HTML element (typically a element).

Syntax:

```
new google.maps.Map(HTMLElement,MapOptions)
```

7.3. Parameter Values

Parameter	Description
HTMLElement	Specifies in what HTML element to put the map
MapOptions	A MapOptions object that holds the map initialization variables/options

7.4. Methods of Map()

Method	Return Value	Description
fitBounds(*LatLngBounds*)	None	Sets the viewport to contain the given

		bounds
getBounds()	*LatLng,LatLng*	Returns the south-west latitude/longitude and the north-east latitude/longitude of the current viewport
getCenter()	*LatLng*	Returns the lat/lng of the center of the map
getDiv()	*Node*	Returns a DOM object that contains the map
getHeading()	*number*	Returns the compass heading of aerial imagery (for SATELLITE and HYBRID map types)
getMapTypeId()	HYBRID ROADMAP SATELLITE TERRAIN	Returns the current map type
getProjection()	*Projection*	Returns the current Projection
getStreetView()	*StreetViewPanorama*	Returns the default StreetViewPanorama bound to the map
getTilt()	*number*	Returns the angle of incidence for aerial imagery in degrees (for SATELLITE and HYBRID map types)
getZoom()	*number*	Returns the current zoom level of the map
panBy(*xnumber,ynumber*)	None	Changes the center of the map by the given distance in pixels
panTo(*LatLng*)	None	Changes the center of the map to the given LatLng
panToBounds(*LatLngBounds*)	None	Pans the map by the minimum amount necessary to contain the given LatLngBounds
setCenter(*LatLng*)	None	Sets the lat/lng of the center of the map
setHeading(*number*)	None	Sets the compass heading for aerial imagery measured in degrees from cardinal direction North
setMapTypeId(*MapTypeId*)	None	Sets the map type to display
setOptions(*MapOptions*)	None	
setStreetView(*StreetViewPanorama*)	None	Binds a StreetViewPanorama to the map
setTilt(*number*)	None	Sets the angle of incidence for aerial imagery in degrees (for SATELLITE and HYBRID map types)

setZoom(*number*)	None	Sets the zoom level of the map

7.5. Properties of Map()

Property	Type	Description
controls	*Array.<MVCArray.<Node>>*	Additional controls to attach to the map
mapTypes	*MapTypeRegistry*	A registry of MapType instances by string ID
overlayMapTypes	*MVCArray.<MapType>*	Additional map types to overlay

7.6. Events of Map()

Event	Arguments	Description
bounds_changed	None	Fired when the viewport bounds have changed
center_changed	None	Fired when the map center property changes
click	*MouseEvent*	Fired when the user clicks on the map
dblclick	*MouseEvent*	Fired when the user double-clicks on the map
drag	None	Fired repeatedly while the user drags the map
dragend	None	Fired when the user stops dragging the map
dragstart	None	Fired when the user starts dragging the map
heading_changed	None	Fired when the map heading property changes
idle	None	Fired when the map becomes idle after panning or zooming
maptypeid_changed	None	Fired when the mapTypeId property changes
mousemove	*MouseEvent*	Fired whenever the user's mouse moves over the map container
mouseout	*MouseEvent*	Fired when the user's mouse exits the map container
mouseover	*MouseEvent*	Fired when the user's mouse enters the map container
projection_changed	None	Fired when the projection has changed
resize	None	Fired when the map (div) changes size

rightclick	*MouseEvent*	Fired when the user right-clicks on the map
tilesloaded	None	Fired when the visible tiles have finished loading
tilt_changed	None	Fired when the map tilt property changes
zoom_changed	None	Fired when the map zoom property changes

7.7 Overlays

Constructor/Object	**Description**
Marker	Creates a marker. (Note that the position must be set for the marker to display)
MarkerOptions	Options for rendering the marker
MarkerImage	A structure representing a Marker icon or shadow image
MarkerShape	Defines the marker shape to use in determination of a marker's clickable region (type and coord)
Animation	Specifies animations that can be played on a marker (bounce or drop)
InfoWindow	Creates an info window
InfoWindowOptions	Options for rendering the info window
Polyline	Creates a polyline (contains path and stroke styles)
PolylineOptions	Options for rendering the polyline
Polygon	Creates a polygon (contains path and stroke+fill styles)
PolygonOptions	Options for rendering the polygon
Rectangle	Creates a rectangle (contains bounds and stroke+fill styles)
RectangleOptions	Options for rendering the rectangle
Circle	Creates a circle (contains center+radius and stroke+fill styles)
CircleOptions	Options for rendering the circle
GroundOverlay	
GroundOverlayOptions	
OverlayView	
MapPanes	
MapCanvasProjection	

7.8. Events

Constructor/Object	Description
MapsEventListener	It has no methods and no constructor. Its instances are returned from addListener(), addDomListener() and are eventually passed back to removeListener()
event	Adds/Removes/Trigger event listeners
MouseEvent	Returned from various mouse events on the map and overlays

7.9. Controls

Constructor/Object	Description
MapTypeControlOptions	Holds options for modifying a control (position and style)
MapTypeControlStyle	Specifies what kind of map control to display (Drop-down menu or buttons)
OverviewMapControlOptions	Options for rendering of the overview map control (opened or collapsed)
PanControlOptions	Options for rendering of the pan control (position)
RotateControlOptions	Options for rendering of the rotate control (position)
ScaleControlOptions	Options for rendering of the scale control (position and style)
ScaleControlStyle	Specifies what kind of scale control to display
StreetViewControlOptions	Options for rendering of the street view pegman control (position)
ZoomControlOptions	Options for rendering of the zoom control (position and style)
ZoomControlStyle	Specifies what kind of zoom control to display (large or small)
ControlPosition	Specifies the placement of controls on the map