# google.maps.Map API:

## Methods Of Map

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| **Method** | **Return Value** | **Description** |
| fitBounds(*LatLngBounds*) | None | Sets the viewport to contain the given bounds |
| [getBounds()](https://www.w3schools.com/graphics/tryit.asp?filename=trymap_ref_getbounds) | *LatLng,LatLng* | Returns the south-west latitude/longitude and the north-east latitude/longitude of the current viewport |
| [getCenter()](https://www.w3schools.com/graphics/tryit.asp?filename=trymap_ref_getcenter) | *LatLng* | Returns the lat/lng of the center of the map |
| [getDiv()](https://www.w3schools.com/graphics/tryit.asp?filename=trymap_ref_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()](https://www.w3schools.com/graphics/tryit.asp?filename=trymap_ref_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()](https://www.w3schools.com/graphics/tryit.asp?filename=trymap_ref_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*)](https://www.w3schools.com/graphics/tryit.asp?filename=trymap_ref_setmaptypeid) | None | Sets the map type to display |
| setOptions(*MapOptions*) | None |  |
| setStreetView(*StreetViewPanorama*) | None | Binds a StreetViewPanorama to the map |
| [setTilt(*number*)](https://www.w3schools.com/graphics/tryit.asp?filename=trymap_ref_settilt) | None | Sets the angle of incidence for aerial imagery in degrees (for SATELLITE and HYBRID map types) |
| [setZoom(*number*)](https://www.w3schools.com/graphics/tryit.asp?filename=trymap_ref_setzoom) | None | Sets the zoom level of the map |

## Events of Map:

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| **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 |

## Overlays:

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| **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 |  |

## Properties of Map()

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| **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 |

## Events

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| **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 |

## Controls

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| **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 |