**Test Plan**

Google GeoCoding API service

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# Revision and Signoff Sheet

# Document History

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| Version | Date | Author | Description of Change |
| 1. | 07.01.2017 | Medina Ovcina | Draft |
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# Approvers List

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| Name | Role | Approver/Reviewer | Approval/Review Date |
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# Reference Documents

|  |  |  |
| --- | --- | --- |
| Version | Date | Document Name |
| 1.0 | 27.12.2016 | <https://developers.google.com/maps/documentation/>  geocoding/intro#Geocoding |
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# Table of Content

# **INTRODUCTION**

## Purpose

This test plan describes the testing approach and overall framework that will drive the testing of the

Google Geocoding API service. It will contain: Test Scenarios with detailed test steps.

## Project Overview

Geocoding is the process of converting addresses (like "1600 Amphitheatre Parkway, Mountain View, CA") into geographic coordinates (like latitude 37.423021 and longitude -122.083739), which you can use to place markers on a map, or position the map.

Reverse geocoding is the process of converting geographic coordinates into a human-readable address. The Google Maps Geocoding API's reverse geocoding service also lets you find the address for a given place ID.

The Google Maps Geocoding API provides a direct way to access these services via an HTTP request. The following example uses the Geocoding service through the Google Maps JavaScript API to demonstrate the basic functionality.

## Audience

Project team members perform tasks specified in this document, and provide input and

recommendations on this document.

Project Manager Plans for the testing activities in the overall project schedule, reviews the

document, tracks the performance of the test according to the task herein specified, approves the document and is accountable for the results.

Technical Team ensures that the test plan and deliverables are in line with the design, provides the environment for testing and follows the procedures related to the fixes of defects.

Business analysts will provide their inputs on functional changes.

# **TEST STRATEGY**

## Test Objectives

The objective of the test is to verify that the functionality of Google GeoCoding API Service works according to the specifications. The test will execute and verify the test scripts, identify, fix and retest all high and medium severity defects per the entrance criteria.

## Test Principles

Testing will be focused on meeting the business objectives, cost efficiency, and quality.

There will be common, consistent procedures for all teams supporting testing activities.

Testing processes will be well defined, yet flexible, with the ability to change as needed.

Testing activities will build upon previous stages to avoid redundancy or duplication of effort.

Testing environment and data will emulate a production environment as much as possible.

Testing will be a repeatable, quantifiable, and measurable activity.

Testing will be divided into distinct phases, each with clearly defined objectives and goals.

There will be entrance and exit criteria.

# **TEST SCENARIOS**

## Smoke Test - Validate JSON Format responce

In this test we will validate responce for JSON format

1. Get request from https://maps.googleapis.com/maps/api/geocode/json?address=1600+Amphitheatre+Parkway,+Mountain+View,+CA&key={{key}}
2. Verify that format responce is JSON

## Smoke Test – Validate XML Format responce

In this test we will validate responce for XML format

1. Get request from [https://maps.googleapis.com/maps/api/geocode/xml?address=1600+Amphitheatre+Parkway,+Mountain+View,+CA&key={{key}}](https://maps.googleapis.com/maps/api/geocode/xml?address=1600+Amphitheatre+Parkway,+Mountain+View,+CA&key=%7b%7bkey%7d%7d)
2. Verify that format responce is XML

## Negative Test - Verify Status zero\_results missing longitude value in request

In this test we will validate the Status zero\_results missing longitude value in request

1. Get request from https://maps.googleapis.com/maps/api/geocode/json?latlng=50.000,&result\_type=country&language=es&key={{key}}
2. Verify that zero\_results is the value of the response status

## Negative Test - Verify Status invalid\_request when we have empty address

In this test we will validate the Status invalid\_request when adress is empty in JSON format

1. Get request from https://maps.googleapis.com/maps/api/geocode/json?address=&key={{key}}
2. Verify that invalid\_request is the value of status
3. Verify array of object is empty
4. Verify that error message is present

## Negative Test - Verify Status request\_denied when we have invalid key in request

In this test we will validate the request\_denied when we have invalid key in request in JSON format

1. Get request from https://maps.googleapis.com/maps/api/geocode/json?address=bosina+and+hercegovina&key=key}}
2. Verify that request\_denied is the value of status
3. Verify array of object is empty
4. Verify that error message is present

## Positive Test - Verify Component filtering for JSON

In this test we will validate componenet fitering by postal code

1. Ger request form

[https://maps.googleapis.com/maps/api/geocode/json?address=Stone+Rd,+uk&key={{key}}](https://maps.googleapis.com/maps/api/geocode/json?address=Stone+Rd,+uk&key=%7b%7bkey%7d%7d)

1. Verify returend results are all routes not filtered with postal code
2. Get request from [https://maps.googleapis.com/maps/api/geocode/json?address=Stone+Rd,+uk&components=postal\_code:ST4&key={{key}}](https://maps.googleapis.com/maps/api/geocode/json?address=Stone+Rd,+uk&components=postal_code:ST4&key=%7b%7bkey%7d%7d)
3. Verify returend results are all with specified postal code

## Positive Test – Verify Lenguage selection

In this test we will validate that Lenguage selection is working.

1. Get request from https://maps.googleapis.com/maps/api/geocode/json?address=Via+costa,+4,+62022+castelraimondo+mc,+italy&language=hr&key={{key}}
2. Verify that set of lenguage is on Hrvatski

## Verify Address that contains establishment and locality

In this test we will validate adress component, location type place id.

1. Get request from [https://maps.googleapis.com/maps/api/geocode/xml?address=Bistrik+Brijeg,Sarajevo&key={{key}}](https://maps.googleapis.com/maps/api/geocode/xml?address=Bistrik+Brijeg,Sarajevo&key=%7b%7bkey%7d%7d)
2. Verify that XML contains place\_id, location\_type

## Verify Reverce GeoCoding by latitude/longitude (latlng) in xml format

In this test we will validate Reverce geocoding by latitude/longitude.

1. Get request from [https://maps.googleapis.com/maps/api/geocode/xml?latlng=43.8507,18.432671&key={{key}}](https://maps.googleapis.com/maps/api/geocode/xml?latlng=43.8507,18.432671&key=%7b%7bkey%7d%7d) (use the information from previous test)
2. Verify that location\_type is approximate since it is taken from previous responce

# Test Cycles

There will be two cycles for functional testing. Each cycle will execute all the scripts .

o The objective of the first cycle is to identify any blocking, critical defects, and most of thehigh defects. It is expected to use some work-around in order to get to all the scripts.

o The objective of the second cycle is to identify remaining high and medium defects, remove the work-around from the first cycle, correct gaps in the scripts and obtain performance results

# Test Envieroment

A windows environment with Internet Explorer 9, 10, 11 and with Firefox 27.0, as well as Google Chrome 32.0 and later should be available to each tester.

# Appruvals

The Names and Titles of all persons who must approve this plan.

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| **Signature** |  |
| **Role** |  |
| **Date** |  |