



MDGuidelines[®] API: Job Title Search v1 Specification 1.1

Date: December 6, 2023

1 Overview

1.1 Purpose and Intended Audience

The purpose of this document is to provide detailed descriptions and specifications for the MDGuidelines® Job Title Search v1 API.

The Job Title Search API is intended to be used by MDGuidelines clients and partners who have integrated MDGuidelines into their own products and want to find job titles related to a keyword or job code.

The Job Title Search API is part of the MDGuidelines API product offering.

This specification is specific to v1 of the Job Title Search end point.

1.2 Description

The Job Title Search API provides a paginated list of job title results and content reference data to help integrated system users find and use job-related content.

Terminology

Term	Definition
Job Source ID	ID number identifying the source of the job data: 1 = DOT (Dictionary of Occupational Titles) 3 = ONET (Occupational Information Network)
Job Source	Source of the job data: DOT = Dictionary of Occupational Titles ONET = Occupational Information Network
Job Source Description	Full description of the job data source: Dictionary of Occupational Titles (DOT) was produced by the U.S. Department of Labor and contains over 12,000 job titles. It was last updated in 1991 and was subsequently replaced by O*NET. Occupational Information Network (O*NET) was produced by the U.S. Department of Labor, as well as the Employment and Training Administration. O*NET contains over 1,000 job titles and is updated several times during the year.

Term	Definition
Job Source Version	Version of the job source data. DOT: Last version is from 1991 ONET: Current version is 25.3
Job Code	Job code assigned to a specific job title. May be in either of these formats where x is a numeric value: DOT: xxx.xxx-xxx ONET: xx-xxxx.xx
Job Title	Title of the specified job
Job Description	Description of the specified job
Job Class/ Job Class Description	The job classes correspond to the strength factor classifications described in the U.S. Department of Labor's Dictionary of Occupational Titles: - Sedentary - Light - Medium - Heavy - Very Heavy For more information, visit this resource in MDGuidelines: https://app.mdguidelines.com/help-directory/jte See Section 3.1 Job Class Descriptions below.
ONET Citation	This service incorporates information from O*NET Web Services by the U.S. Department of Labor, Employment and Training Administration (USDOL/ETA). O*NET® is a trademark of USDOL/ETA.

2 API Specification

This section documents the technical usage of the Job Title Search API. General information about any of the MDGuidelines APIs may be found at <https://api.mdguidelines.com/help>.

MDGuidelines APIs are RESTful.

Responses may be formatted as XML or JSON (see Section [2.5 Input Parameters](#) below).

This information will also be published at <https://api.mdguidelines.com/help/jobTitleSearch-v1.html>. Currently, this help page includes a test harness form (see Section [2.8 Testing](#) below).

2.1 Endpoint

The Job Title Search v1 API endpoint is: <https://api.mdguidelines.com/api/v1/jobTitle/search>

2.2 Authentication

The customer's API license key must be provided via the request headers as "RG-LICENSE-KEY". This key will be provided by the customer's account executive at MDGuidelines.

2.3 Authorization

The customer's API license key provides access to all API end points without requiring additional configuration.

2.4 Version Information

The current version of this API is v1.

2.5 Input Parameters

Data Element	Data Type	Req?	Format	Data Element Description	Default Value
Job Keyword(s)	String	Yes	N/A	Name of the job title, job code, or keywords describing the job's function. A job code may be in either of these formats where x is a numeric value: DOT: xxx.xxx-xxx ONET: xx-xxxx.xx	N/A
Job Source	String	Yes	N/A	Source of the job data: - DOT - ONET - All	All
Start	Integer	No	N/A	The starting row number (result number) for returning subsequent pages of results. The row numbers start at 0. Use to return subsequent pages in paginated results.	0
Rows	Integer	No	N/A	The number of search results to return. If no value is provided, then the response will include up to 25 results. Use to set pagination size.	25

2.6 Response

Data may be returned as JSON or XML.

If using XML, the XML schema definition (XSD) may be found here:

<https://api.mdguidelines.com/xsd/JobTitleSearchV1.xsd>

Data Element	Data Type	Req?	Format	Data Element Description	Default Value
JobSourceId	Integer	Yes		ID number identifying the source of the job data: 1 = DOT (Dictionary of Occupational Titles) 3 = ONET (Occupational Information Network)	N/A
JobSource	String	Yes		Source of the data: - DOT - ONET	N/A

Data Element	Data Type	Req?	Format	Data Element Description	Default Value
JobSourceDescription	String	Yes		Full description of the job data source: - Dictionary of Occupational Titles - Occupational Information Network	N/A
JobSourceVersion	String	Yes		Version of the job data source: DOT: 1991 ONET = 25.3	N/A
JobCode	String	Yes		Job code assigned to a specific job title. May be in either of these formats where x is a numeric value: DOT: xxx.xxx-xxx ONET: xx-xxxx.xx	N/A
JobTitle	String	Yes		Title of the job	N/A
JobDescription	String	Yes		Description of the job	N/A
JobClass	String	Yes		Class of the job according to the strength factor classifications described in the U.S. Department of Labor's Dictionary of Occupational Titles: - Sedentary - Light - Medium - Heavy - Very Heavy	N/A
JobClassDescription	String	Yes		Description of the five different job classes See Section 3.1 Job Class Descriptions below.	N/A
ONETCitation	String	Yes		The following text will be returned for ONET data only: <i>"This service incorporates information from O*NET Web Services by the U.S. Department of Labor, Employment and Training Administration (USDOL/ETA). O*NET is a trademark of USDOL/ETA."</i> NULL will be returned if the data is not ONET.	

2.7 Exception Conditions and Troubleshooting

The service may provide response codes, for success or errors. The common response codes implemented in the MDGuidelines API are documented at <https://api.mdguidelines.com/help>.

Response Status

Status Code	Cause(s)
200	<p>Message:</p> <ul style="list-style-type: none"> OK <p>This status may occur with an empty data set in the response data. When this happens, it means that the request was correctly formed, however no job title results match the request.</p> <p>This would be the typical response for a keyword search with no matches (e.g., supercalifragilistic).</p>
400	<p>Messages:</p> <ul style="list-style-type: none"> Invalid parameter specified: <i>[parameter name]</i> The following parameter is required: <i>[parameter name]</i>
401	<p>Message:</p> <ul style="list-style-type: none"> License code not authorized. <p>This response will be returned in the following scenarios:</p> <ul style="list-style-type: none"> License key is expired License key is missing License key is otherwise invalid
403	<p>Message:</p> <ul style="list-style-type: none"> License does not provide access to the requested resource
500	<p>If the server, API site, or this service failed, the response will be a 500 server error.</p>

2.8 Testing

MDGuidelines supports these methods for integration testing:

1. Test Harness Page
 - <https://api.mdguidelines.com/help/jobTitleSearch-v1.html>
 - Requires production license key configuration (RG-LICENSE-KEY)
2. API Testing tool, such as Postman
 - <https://www.getpostman.com/apps>

2.9 Sample Code

JQuery

```
var uri = "https://api.mdguidelines.com/api/v1/jobtitle/search"; uri += "/Nurse";
uri += "/All";
uri += "&start=0"; uri
+= "&rows=25";

$.ajax({ url:
uri, type:
'GET',
dataType: 'json',
headers: { 'RG-LICENSE-KEY': 'XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXXX', },
success: function (data) { handleData(data) },
error: function (xhr, status, error) { handleError(xhr, status, error) }
})
```

2.10 Helpful Hints

MDGuidelines offers these helpful hints for searching the job title data:

1. Overall, ONET job codes are more generalized when compared to DOT job codes. For example, the ONET job code for “Farmers, Ranchers, and Other Agricultural Manager” is 11-9013.00. However, DOT has 27 various job codes that are similar in nature to 11-9013.00 including:
 - 403.161-010 – FARMER, TREE-FRUIT-AND-NUT CROPS (agriculture) alternate titles: orchardist
 - 413.161-010 – BEEKEEPER (agriculture) alternate titles: apiarist; bee farmer; bee raiser; bee rancher; honey producer
 - 180.167-046 – MANAGER, POULTRY HATCHERY (agriculture)

Therefore, if a very specific job title is needed, it is suggested that the user search for only DOT job codes by setting Job Source input parameter to “DOT”.

2. The user may enter either keyword(s) or an actual job code in the Job Keyword(s) input parameter. If an actual DOT or ONET job code is entered in the required format, then only that job title will be returned. For example, entering “29-1141.00” as input will only return the ONET job title “Registered Nurse”.
3. If a keyword is entered, the search will look for the keyword in the job title first. It will then search based on job synonyms and finally job descriptions.
4. If the keyword entered appears earlier in the job title, then generally that job title will be listed first. For example, if the keyword “manager” is entered, the job title “MANAGER, BRANCH” will be returned in the results before the job title “Human Resources Managers”.

3 Appendices

This section includes additional references for interpreting the data.

3.1 Job Class Descriptions

Job Class	Job Class Description
Sedentary	Exerting up to 10 pounds (4.5 kg) of force occasionally and/or a negligible amount of force frequently or constantly to lift, carry, push, pull, or otherwise move objects, including the human body. Sedentary work involves sitting most of the time, but may involve walking or standing for brief periods of time. Jobs are sedentary if walking and standing are required only occasionally and other sedentary criteria are met.
Light	Exerting up to 20 pounds (9.1 kg) of force occasionally and/or up to 10 pounds (4.5 kg) of force frequently, and/or negligible amount of force constantly to move objects. Physical demand requirements are in excess of those for Sedentary Work. Light Work usually requires walking or standing to a significant degree. However, if the use of the arm and/or leg controls requires exertion of forces greater than that for Sedentary Work and the worker sits most the time, the job is rated Light Work.
Medium	Exerting up to 50 (22.7 kg) pounds of force occasionally, and/or up to 25 pounds (11.3 kg) of force frequently, and/or up to 10 pounds (4.5 kg) of forces constantly to move objects.
Heavy	Exerting up to 100 pounds (45.4 kg) of force occasionally, and/or up to 50 pounds (22.7 kg) of force frequently, and/or in excess of 20 pounds (9.1 kg) of force constantly to move objects.
Very Heavy	Exerting in excess of 100 pounds (45.4 kg) of force occasionally, and/or in excess of 50 pounds (22.7 kg) of force frequently, and/or in excess of 20 pounds (9.1 kg) of force constantly to move objects.

Document Revision History

Date	Reason For Changes	Document Version
7/1/2021	Initial Version	1.0
12/6/2023	Minor Changes and Corrections	1.1