

# Agent validation

As discussed on the [Agent design](/dialogflow/docs/agents-design) (/dialogflow/docs/agents-design) page, the design of your agent can greatly influence the quality of your agent. To help agent designers create high-quality agents, Dialogflow provides a validation feature. Agent validation results are available automatically whenever agent training is performed and completed. You can access the results of validation from either the Dialogflow Console or the API.


The validation results are informational only. They provide a list of errors that you should correct to improve the quality and performance of your agent. If your agent has errors, you can choose to ignore them and launch your agent. Agent validation does not affect the behavior of an agent in any way.

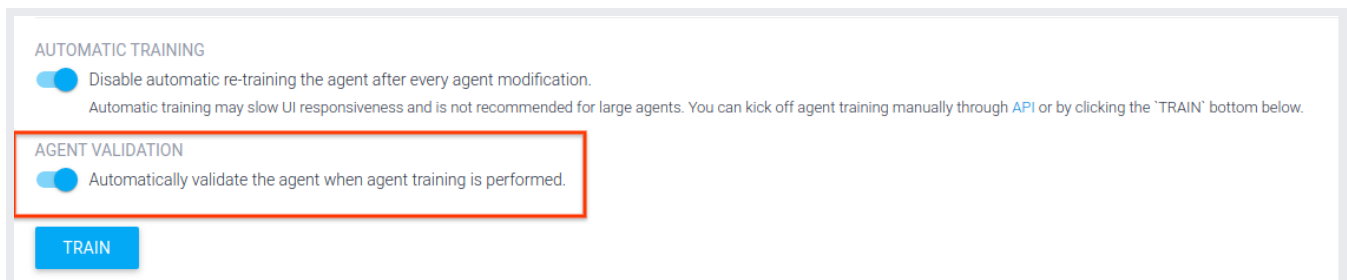
Here are some example results that you might find:

- Intent has training phrases which are too similar.
- Intent contains a parameter that is not used in enough training phrases.
- There are no negative examples for the fallback intent.
- This text is annotated in some training phrases but not others.

## Enable and disable automatic validation

By default, agent validation is automatically performed whenever the agent is trained. You can enable and disable this setting:

1. Go to the [Dialogflow Console](https://dialogflow.cloud.google.com) (https://dialogflow.cloud.google.com).
2. Select your agent.
3. Click the settings  icon next to the agent name.
4. Select the **ML Settings** tab.
5. Toggle the **Agent Validation** setting on (default) or off.



AUTOMATIC TRAINING

Disable automatic re-training the agent after every agent modification.  
Automatic training may slow UI responsiveness and is not recommended for large agents. You can kick off agent training manually through [API](#) or by clicking the 'TRAIN' button below.

AGENT VALIDATION

Automatically validate the agent when agent training is performed.


TRAIN


## Agent validation page

To access the validation data for your agent:

1. Go to the [Dialogflow Console](https://dialogflow.cloud.google.com) (<https://dialogflow.cloud.google.com>).
2. Select your agent.
3. Click **Validation** in the [sidebar menu](/dialogflow/docs/console#console_interface_layout) ([/dialogflow/docs/console#console\\_interface\\_layout](/dialogflow/docs/console#console_interface_layout)).


✓ ERROR ✓ WARNING ✓ INFO


Search agent issues 


 **Agent Issues** 1 1

There are no negative examples in the agent. Please create Default Fallback intent and fill it with examples.

There is no fallback intent in the agent.

Search intent issues 

 **Intent Issues** 4


app.current.notifications.open  2

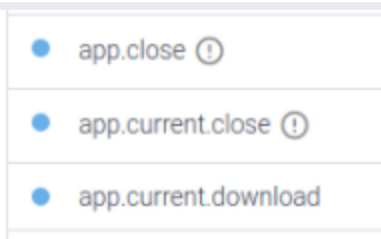
Parameter 'ad' has an empty value.


Multiple intents share training phrases which are too similar:

- Intent 'app.notifications.open': training phrase 'open notifications settings'
- Intent 'app.current.notifications.open': training phrase 'open notifications settings'

## Validation results for intents and entities

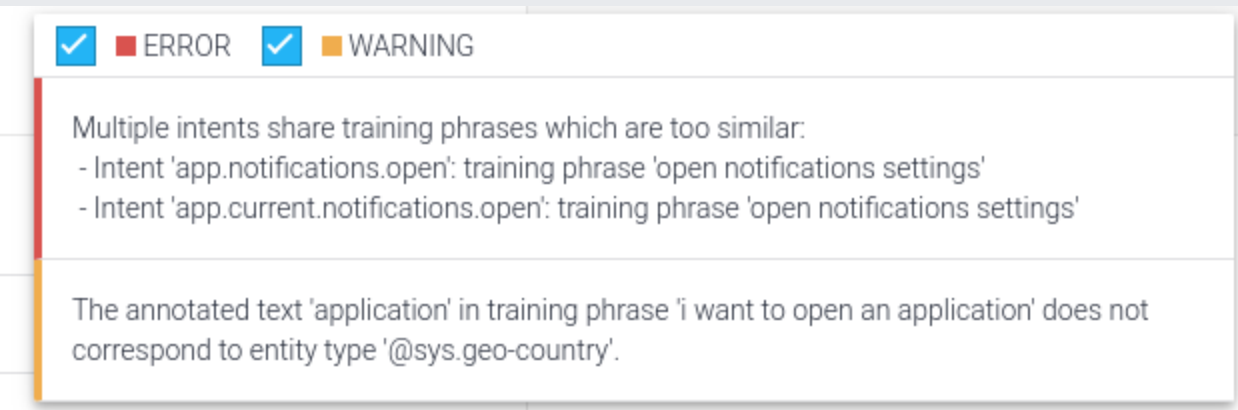
When you visit either the intents list or the entities list pages, any intents or entities with validation errors show an error  indicator next to the name.



When you visit a page for a specific intent or entity that has validation errors, an error  indicator is shown near the **Save** button.



Clicking this button shows a list of errors for the intent or entity. By default, only errors with a severity of **CRITICAL** or **ERROR** are shown. You can toggle the types of severities to also show **WARNING** and **INFO**.



You may also see error indicators for specific training phrases and parameters, and you can hover over these indicators to see the details.

Training phrases ? ? Search training phrases Q ^ Set-up **GO**

- ” Add user expression
- ” your notifications settings
- ” I'd like to see your notifications settings
- ” where can I find your notifications
- ” open notifications settings !
- ” could you show me your notifications
- ” open your notifications

Multiple intents share training phrases which are too similar:  
- Intent 'app.notifications.open': training phrase 'open allo notifications settings'  
- Intent 'app.current.notifications.open': training phrase 'open notifications settings'

## Validation results for versions and environments

When viewing [versions and environments](/dialogflow/docs/agents-versions) (/dialogflow/docs/agents-versions), each agent version may have unique validation errors. If any errors are present, the validation icon appears next to the version.

**Draft** ?  
Unversioned changes (latest) | [View all versions](#) NO CHANGES DETECTED

LAST MODIFIED	LAST VERSION CREATED	CONNECTED INTEGRATIONS
Aug 26, 2019, 12:54 PM	Sep 10, 2019, 3:47 PM	-

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### Custom environments

Environment <span>?</span>	Last modified	Version <span>?</span>	Connected integrations <span>?</span>
Prod	Sep 10, 2019, 3:47 PM	4 <input checked="" type="checkbox"/>	

Clicking the icon will show the details.

## Validation Errors

Validation errors associated with Version 2.

Select Language  
en

ERROR  WARNING  INFO

Agent Issues

Search intent issues

Intent Issues 1 87

1 OF 4

Account	1
ChangeAccount	1
CreateAccount	2
DeleteAccount	1
QueryAccount	4
CloseAccount	2
BankAccount	1

CLOSE

## Validation results with the API

In most cases, you will view validation results using the Dialogflow Console. However, you can access this data from the API as well.

## REST & CMD LINE

Call the `getValidationResult` method on the `Agents` (`/dialogflow/docs/reference/common-types#agents`) type.

Before using any of the request data below, make the following replacements:

- **`project-id`**: your GCP project ID

HTTP method and URL:

```
GET https://dialogflow.googleapis.com/v2/projects/project-id/agent/validationR
```

To send your request, expand one of these options:

### **curl (Linux, macOS, or Cloud Shell)**

**Note:** Ensure you have set the `GOOGLE_APPLICATION_CREDENTIALS` (`/docs/authentication/production`) environment variable to your service account private key file path.

Execute the following command:

```
curl -X GET \  
-H "Authorization: Bearer "$(gcloud auth application-default print-access-token \  
https://dialogflow.googleapis.com/v2/projects/project-id/agent/validationResul
```

### **PowerShell (Windows)**

**Note:** Ensure you have set the `GOOGLE_APPLICATION_CREDENTIALS` (`/docs/authentication/production`) environment variable to your service account private key file path.

Execute the following command:

```
$cred = gcloud auth application-default print-access-token
$headers = @{ "Authorization" = "Bearer $cred" }

Invoke-WebRequest `
  -Method GET `
  -Headers $headers `
  -Uri "https://dialogflow.googleapis.com/v2/projects/project-id/agent/validat
```

You should receive a JSON response similar to the following:

```
{
  "validationErrors": [
    {
      "severity": "ERROR",
      "entries": [
        "projects/my-project/agent/intents/58b44b2d-4967-4a81-b017-12623dcd5d2"
      ],
      "errorMessage": "Parameter 'test' has an empty value."
    },
    {
      "severity": "WARNING",
      "entries": [
        "projects/my-project/agent/intents/271e3808-3c91-4e6b-89e8-47951abcec8"
      ],
      "errorMessage": "Intent 'app.current.update' does not have enough unique"
    },
    {
      "severity": "ERROR",
      "entries": [
        "projects/my-project/agent/intents/26e64b1b-eea7-4ce2-be46-631a501fccb"
        "projects/my-project/agent/intents/58b44b2d-4967-4a81-b017-12623dcd5d2"
      ],
      "errorMessage": "Multiple intents share training phrases which are too s"
    }
  ]
}
```



## Severity States

Validation can show the following severity states:

Severity	Description
INFO	The agent doesn't follow the best practice.
WARNING	The agent might not behave as expected.
ERROR	The agent may experience partial failures.
CRITICAL	The agent may completely fail.
SEVERITY_UNSPECIFIED	Not specified. This value should never be used. (This severity is possible through the API)

## Force validation

Agent validation results are available automatically whenever agent training is performed and completed. To force new validation results, you can disable automatic validation, and trigger it manually. See the [Agent ML settings \(/dialogflow/docs/agents-settings#ml\)](/dialogflow/docs/agents-settings#ml) page on the console.

## Handling many issues

When a large number of issues are found, you should consider the following:

- Fix issues in small batches. If there are many similar issues, fixing one issue may fix similar issues after you retrain the agent.
- At most 5000 issues are shown at a time. If you have over 5000 issues, you may not see a count reduction until less than 5000 remain.

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