

[Job Search documentation](https://cloud.google.com/talent-solution/job-search/) (<https://cloud.google.com/talent-solution/job-search/>)

[Documentation](#)

Custom attributes

Cloud Talent Solution provides several different job attributes out-of-the-box to support the needs of various customers. **To gain the best performance from Cloud Talent Solution, it's highly recommended you use the out-of-the-box fields as much as possible.**

In addition, Cloud Talent Solution also provides custom attributes to store generic information. Custom attributes are used to provide even more flexibility to allow customers to support their business logic. Custom attributes store either a string or numerical information, and can be filtered against in search queries by setting appropriate [filters](#) (<https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/JobQuery>).

Custom attributes features

- **Define your own custom field name:** Define a name for a particular attribute of a job. Set this attribute to be either filterable or non-filterable depending on your needs. Typically, if the UI needs a filterable facet that is not provided out-of-the-box by Cloud Talent Solution a `customAttribute` (<https://cloud.google.com/talent-solution/job-search/docs/reference/rpc/google.cloud.talent.v4beta1#customattribute>) can be used to provide the right filtering.
- **Case (in)sensitive search:** Each search request can specify whether the search against all custom attributes is case sensitive or case insensitive.
- **Range based filtering:** `customAttribute` search filters can filter jobs between a range of specified numeric values. For example, if a given `customAttribute` field is used to store the minimum GPA requirements of a job, the `customAttribute` search filter can be used to

return jobs within a certain minimum GPA range, greater than a minimum GPA value, lesser than a minimum GPA value, etc.

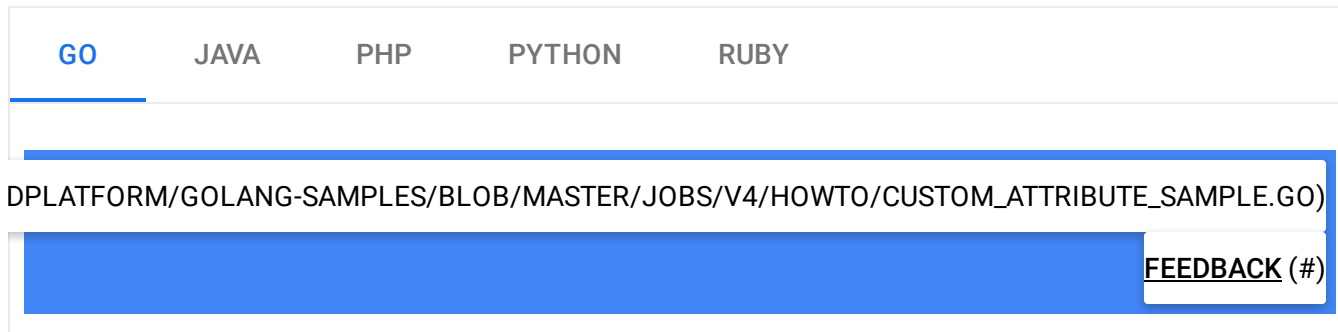
- **Cross-field filtering:** `customAttribute` also provides customers of Cloud Talent Solution with the ability to define expressions that filter a combination of custom attributes. For example, a customer has business logic that states they only want jobs that sponsor visas, or telecommute jobs. The customer stores both these fields in a different `customAttribute`. The customer can then specify a search filter with an expression that defines the logic needed. Only 3 levels of nested expressions are supported.
- **Keyword specific search:** Specify a certain `customAttribute` in the `keywordSearchableCustomAttributes` of the associated company to ensure search requests that contain a value in the specified `customAttribute` return the jobs containing this value in that `customAttribute`.
- **SQL based searches:** `customAttribute` allows you to define boolean-style expressions in the search request. Cloud Talent Solution automatically parses these expressions, applies the filters to the search request, and returns results accordingly. Only 3 levels of nesting of the boolean expressions and at most 2000 characters are allowed.
- **Define custom histogram buckets:** Custom attributes allow customers of Cloud Talent Solution to set custom buckets by which histograms can be calculated. For example, you can use a `customAttribute` to store minimum GPA information, and then create a histogram on this field. You can further create buckets from 3.0 - 3.5, 3.51 - 4.0, etc., to group all the minimum GPAs within these buckets.

Using custom attributes

Create a new job with the `customAttribute`

(<https://cloud.google.com/talent-solution/job-search/docs/reference/rpc/google.cloud.talent.v4beta1#customattribute>)

field (can be used with either numeric or string values):



```
import (
    "context"
    "fmt"
    "io"

    talent "cloud.google.com/go/talent/apiv4beta1"
    "github.com/gofrs/uuid"
    talentpb "google.golang.org/genproto/googleapis/cloud/talent/v4beta1"
    money "google.golang.org/genproto/googleapis/type/money"
)

// createJobWithCustomAttributes creates a job with custom attributes.
func createJobWithCustomAttributes(w io.Writer, projectID, companyID, jobTitle string,
    ctx := context.Background())

// Initialize a job service client.
c, err := talent.NewJobClient(ctx)
if err != nil {
    return nil, fmt.Errorf("talent.NewJobClient: %v", err)
}

// requisitionID should be the unique ID in your system
requisitionID := fmt.Sprintf("job-with-custom-attribute-%s", uuid.Must(uuid.NewV4()))
jobToCreate := &talentpb.Job{
    Company:      fmt.Sprintf("projects/%s/companies/%s", projectID, companyID),
    RequisitionId: requisitionID,
    Title:        jobTitle,
    ApplicationInfo: &talentpb.Job_ApplicationInfo{
        Uris: []string{"https://googlesample.com/career"},
    },
    Description:    "Design, develop, test, deploy, maintain and improve products.",
    LanguageCode:   "en-US",
    PromotionValue: 2,
    EmploymentTypes: []talentpb.EmploymentType{talentpb.EmploymentType_FULL_TIME},
    Addresses:      []string{"Mountain View, CA"},
    CustomAttributes: map[string]*talentpb.CustomAttribute{
        "someFieldString": {
            Filterable: true,
            StringValues: []string{"someStrVal"},
        },
        "someFieldLong": {
            Filterable: true,
            LongValues: []int64{900},
        },
    },
}
```

```

        CompensationInfo: &talentpb.CompensationInfo{
            Entries: []*talentpb.CompensationInfo_CompensationEntry{
                {
                    Type: talentpb.CompensationInfo_BASE,
                    Unit: talentpb.CompensationInfo_HOURLY,
                    CompensationAmount: &talentpb.Compensation
                        Amount: &money.Money{
                            CurrencyCode: "USD",
                            Units:          1,
                        },
                },
            },
        },
    },
}

// Construct a createJob request.
req := &talentpb.CreateJobRequest{
    Parent: fmt.Sprintf("projects/%s", projectID),
    Job:    jobToCreate,
}

resp, err := c.CreateJob(ctx, req)
if err != nil {
    return nil, fmt.Errorf("CreateJob: %v", err)
}

fmt.Fprintf(w, "Created job with custom attributes: %q\n", resp.GetName())
fmt.Fprintf(w, "Custom long field has value: %v\n", resp.GetCustomAttribut

return resp, nil
}

```

Note: Cloud Talent Solution allows setting both the [filterableCustomFields](#) and the custom attributes when creating a job, however only one of either [filterableCustomFields](#) or custom attributes can be set in a single search request.

By default, the [searchJobs](#) and [searchJobsForAlert](#) endpoints only search against out-of-the-box fields. If you also need to search against customAttribute fields, use the [keywordSearchableJobCustomAttributes](#)

(<https://cloud.google.com/talent-solution/job-search/docs/reference/rpc/google.cloud.talent.v4beta1#customattribute>) field to define a list of custom attributes to search.

For example, if a recruiter wishes to use a `customAttribute` "customRequisitions" to store the requisition ids of jobs particular to a specific employer, then by setting `keywordSearchableJobCustomAttributes` to include this field, a regular search conducted by a recruiter for "ABC123" returns all jobs that have the `customAttribute` "customRequisitions" with a value of "ABC123".

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