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# **date-assistant**

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**date-assistant** is a Python library that give you classes and functions with intuitive names for common dates operations. Feel free to colaborate and take a look at the [repository](#)



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### 1.1 Installation

To use date-assistant, first install it using pip:

```
pip install date-assistant
```

### 1.2 Usage

Currently there are 2 approaches for using this package: the *Functions approach* and the *Class approach*.

#### 1.2.1 When to use each?

- *Functions approach*: When you are going to do a single operation with the same dates.
- *Class approach*: When you are going to do multiple operations with the same dates.

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**Note:** Please consider that the default date format is '%Y-%m-%d', eg: '2021-12-25'. Anyways, you can indicate the format of your date if you need to.

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#### Functions approach

##### Get the difference of days between 2 dates

##### Import get\_days\_diff\_between

First, import get\_days\_diff\_between from date\_assistant:

```
from date_assistant import get_days_diff_between

get_days_diff_between('2021-01-01', '2021-01-11')
# 10
```

## Pass the dates as arguments

Using the function is every easy. Just pass the dates you want use as parameters:

```
from date_assistant import get_days_diff_between

get_days_diff_between('2021-01-01', '2021-01-11')
# 10
```

---

**Note:** Please consider that the default date format is '%Y-%m-%d', eg: '2021-12-25'. Anyways, you can indicate the format of your date if you need to.

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## Indicate the format of the date

Maybe the dates you are using have a different format, you can indicate that:

```
from date_assistant import get_days_diff_between

get_days_diff_between(
    '01-01-2021',
    '01-11-2021',
    date1_format='%d-%m-%Y',
    date2_format='%m-%d-%Y',
)
# 10
```

## Use the format constants

When indicating the format of a date, it may be hard to remember which is the string that matches the format of the date. Use the format constants which have a more intuitive name for the format of the date:

```
from date_assistant import get_days_diff_between
from date_assistant.formats import DD_MM_YYYY, MM_DD_YYYY

get_days_diff_between(
    '01-01-2021',
    '01-11-2021',
    date1_format=DD_MM_YYYY,
    date2_format=MM_DD_YYYY,
)
# 10
```



## Get the difference of months between 2 dates

### Use `get_months_diff_between`

The same things described for the `get_days_diff_between` function applies when using `get_months_diff_between`. You need to import the function, pass the dates as arguments and you can indicate the format of the dates if you need to:

```
from date_assistant import get_months_diff_between
from date_assistant.formats import DD_MM_YYYY

get_months_diff_between(
    '2021-02-14',
    '14-02-2022',
    date2_format=DD_MM_YYYY,
)
# 12
```

**Note:** Notice that we didn't indicate a format for `date1`, that's because `date1` has the same format as the default format: `%Y-%m-%d`.

What happens if we use this function with the last day of a month and the first day of the next one? What do you think the output will be? Let's take a look:

```
from date_assistant import get_months_diff_between

get_months_diff_between(
    '2021-01-31',
    '2021-02-01',
)
# 0
```

As you can see, we get a 0. Because this function only counts the full months between dates. If you need to know how many months have started between 2 dates, use `get_months_started_between`.

## Get the amount of months started between 2 dates

Sometimes you need to know how many months have started between 2 dates. That means that between the last day of a month and the first day of the next one, 1 month started. Let's look explore that use case in this section.

### Import get\_months\_started\_between

First, import get\_months\_started\_between from date\_assistant:

```
from date_assistant import get_months_started_between

get_months_started_between(
    '2021-01-31',
    '2021-02-01',
)
# 1
```

### Pass the dates as arguments

Using the function is every easy. Just pass the dates you want use as parameters, in this case we are using the last day of a month and the first day of the next one as dates:

```
from date_assistant import get_months_started_between

get_months_started_between(
    '2021-01-31',
    '2021-02-01',
)
# 1
```

See how we get a 1 as result. That's because a new month started between the dates, in this case february.

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**Note:** This function allows the same parameters as the previous functions we saw. For example, you can indicate the format of the dates.

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## Get the difference of years between 2 dates

### Use get\_years\_diff\_between

The same things described for the get\_days\_diff\_between function applies when using get\_years\_diff\_between. You need to import the function, pass the dates as arguments and you can indicate the format of the dates if you need to:

```
from date_assistant import get_years_diff_between
from date_assistant.formats import DD_MM_YYYY
```

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```
get_years_diff_between(  
    '2021-02-14',  
    '14-02-2022',  
    date2_format=DD_MM_YYYY,  
)  
# 1
```

**Note:** Notice that we didn't indicate a format for `date1`, that's because `date1` has the same format as the default format: `%Y-%m-%d`.

What happens if we use this function with the last day of a year and the first day of the next one? What do you think the output will be? Let's take a look:

```
from date_assistant import get_months_diff_between  
  
get_years_diff_between(  
    '2021-12-31',  
    '2022-01-01',  
)  
# 0
```

As you can see, we get a 0. Because this function only counts the full years between dates. If you need to know how many years have started between 2 dates, use `get_years_started_between`.

## Get the amount of years started between 2 dates

Sometimes you need to know how many years have started between 2 dates. That means that between the last day of a year and the first day of the next one, 1 year started. Let's look explore that use case in this section.

### Import `get_years_started_between`

First, import `get_years_started_between` from `date_assistant`:

```
from date_assistant import get_years_started_between  
  
get_years_started_between(  
    '2021-12-31',  
    '2022-01-01',  
)  
# 1
```

## Pass the dates as arguments

Using the function is every easy. Just pass the dates you want use as parameters, in this case we are using the last day of a year and the first day of the next one as dates:

```
from date_assistant import get_years_started_between

get_years_started_between(
    '2021-12-31',
    '2022-01-01',
)
# 1
```

See how we get a 1 as result. That's because a new year started between the dates, in this case the year 2022.

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**Note:** This function allows the same parameters as the previous functions we saw. For example, you can indicate the format of the dates.

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## Class approach

### Get the difference of days, months and years between 2 dates

#### Import DateAssistant

First, import DateAssistant from date\_assistant, it will grant you access to all the main methods:

```
from date_assistant import DateAssistant

my_birthday_2021 = DateAssistant('2021-07-13')
date_assistant_birthday = '2021-08-18'

my_birthday_2021.days_diff_with(date_assistant_birthday)
# 36
my_birthday_2021.months_diff_with(date_assistant_birthday)
# 1
my_birthday_2021.years_diff_with(date_assistant_birthday)
# 0
```

#### Instantiate the class and define another date as string

You don't actually need to define another variable, but it will improve the readability:

```
from date_assistant import DateAssistant

my_birthday_2021 = DateAssistant('2021-07-13')
date_assistant_birthday = '2021-08-18'
```

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```
my_birthday_2021.days_diff_with(date_assistant_birthday)
# 36
my_birthday_2021.months_diff_with(date_assistant_birthday)
# 1
my_birthday_2021.years_diff_with(date_assistant_birthday)
# 0
```

## Use the methods

Now execute the methods to get the answer as an integer:

```
from date_assistant import DateAssistant

my_birthday_2021 = DateAssistant('2021-07-13')
date_assistant_birthday = '2021-08-18'

my_birthday_2021.days_diff_with(date_assistant_birthday)
# 36
my_birthday_2021.months_diff_with(date_assistant_birthday)
# 1
my_birthday_2021.years_diff_with(date_assistant_birthday)
# 0
```

You can indicate the format of both of your dates, on the `__init__` method for the base date and on each operation method when using another date (exactly as the [Functions approach](#)).

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**Note:** Please consider that the default date format is '%Y-%m-%d', eg: '2021-12-25'. Anyways, you can indicate the format of your date if you need to.

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