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# **mutalyzer-client Documentation**

***Release latest***

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This package provides a client library and a command line interface for the [Mutalyzer](#) web service.

Please see [ReadTheDocs](#) for the latest documentation.



# CHAPTER 1

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## Installation

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The software is distributed via [PyPI](#), it can be installed with `pip`:

```
pip install mutalyzer-client
```

### 1.1 From source

The source is hosted on [GitHub](#), to install the latest development version, use the following commands.

```
git clone https://github.com/mutalyzer/client.git mutalyzer-client
cd mutalyzer-client
pip install .
```





## CHAPTER 2

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### Usage

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This package provides a command line interface that takes subcommands as its first parameter. To see the full list of subcommands, use the `-h` parameter.

```
mutalyzer_client -h
```

To get more information about a subcommand, use the `-h` option again.

```
mutalyzer_client vcf_to_hgvs -h
```



## CHAPTER 3

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### Library

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The `Mutalyzer` class contains all relevant methods. A class instance is created by providing a build name.

```
>>> from mutalyzer_client import Mutalyzer
>>>
>>> mutalyzer = Mutalyzer('GRCh37')
```

The `hgvs_to_db` can be used to convert an **HGVS** description to a simple format to be used in databases.

```
>>> mutalyzer.hgvs_to_db('NC_000001.10:g.12783G>A')
('chr1', 12783, 'G', 'A')
```

To work with VCF files, we recommend to use the **PyVCF** library.

```
>>> from vcf import Reader
>>>
>>> reader = Reader(open('data/sample.vcf'))
>>> record = next(reader)
```

To convert a VCF record to HGVS, use the `vcf_to_hgvs` method.

```
>>> mutalyzer.vcf_to_hgvs(record.CHROM, record.POS, record.REF, record.ALT[0])
'NC_000001.10:g.12783G>A'
```

To convert a VCF record to database format, use the `vcf_to_db` method.

```
>>> mutalyzer.vcf_to_db(record.CHROM, record.POS, record.REF, record.ALT[0])
('chr1', 12783, 'G', 'A')
```



## CHAPTER 4

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### Contributors

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Find out who contributed:

```
git shortlog -s -e
```