



```
!pip install pycaret

from pycaret.datasets import get_data
data= get_data ("blood")
```

```
Requirement already satisfied: llvmlite<0.42,>=0.41.0dev0 in /usr/local/lib/python3.10/
Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.10/dist-packages
Requirement already satisfied: tenacity>=6.2.0 in /usr/local/lib/python3.10/dist-packa
Requirement already satisfied: dash>=2.9.0 in /usr/local/lib/python3.10/dist-packages
Requirement already satisfied: orjson<4.0.0,>=3.8.0 in /usr/local/lib/python3.10/dist
Requirement already satisfied: tsdownsample==0.1.2 in /usr/local/lib/python3.10/dist-p
Requirement already satisfied: Cython!=0.29.18,!0.29.31,>=0.29 in /usr/local/lib/pytl
Requirement already satisfied: urllib3 in /usr/local/lib/python3.10/dist-packages (fr
Requirement already satisfied: six in /usr/local/lib/python3.10/dist-packages (from py
Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/python3.10/c
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.10/dist-packages
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.10/dist-pi
Requirement already satisfied: deprecated>=1.2.13 in /usr/local/lib/python3.10/dist-pi
Requirement already satisfied: scikit-base<0.6.0 in /usr/local/lib/python3.10/dist-pa
Requirement already satisfied: Flask<3.1,>=1.0.4 in /usr/local/lib/python3.10/dist-pa
Requirement already satisfied: Werkzeug<3.1 in /usr/local/lib/python3.10/dist-packages
Requirement already satisfied: dash-html-components==2.0.0 in /usr/local/lib/python3.1
Requirement already satisfied: dash-core-components==2.0.0 in /usr/local/lib/python3.1
Requirement already satisfied: dash-table==5.0.0 in /usr/local/lib/python3.10/dist-pa
Requirement already satisfied: typing-extensions>=4.1.1 in /usr/local/lib/python3.10/c
Requirement already satisfied: retrying in /usr/local/lib/python3.10/dist-packages (fr
Requirement already satisfied: nest-asyncio in /usr/local/lib/python3.10/dist-packages
Requirement already satisfied: wrapt<2,>=1.10 in /usr/local/lib/python3.10/dist-packa
Requirement already satisfied: jupyter-client in /usr/local/lib/python3.10/dist-packa
Requirement already satisfied: tornado>=4.2 in /usr/local/lib/python3.10/dist-packages
Requirement already satisfied: parso<0.9.0,>=0.8.3 in /usr/local/lib/python3.10/dist-p
Requirement already satisfied: attrs>=22.2.0 in /usr/local/lib/python3.10/dist-packag
Requirement already satisfied: jsonschema-specifications>=2023.03.6 in /usr/local/lib/
Requirement already satisfied: referencing>=0.28.4 in /usr/local/lib/python3.10/dist-p
Requirement already satisfied: rpds-py>=0.7.1 in /usr/local/lib/python3.10/dist-packa
Requirement already satisfied: ptyprocess>=0.5 in /usr/local/lib/python3.10/dist-packa
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Requirement already satisfied: notebook>=4.4.1 in /usr/local/lib/python3.10/dist-packa
Requirement already satisfied: platformdirs>=2.5 in /usr/local/lib/python3.10/dist-pa
Requirement already satisfied: itsdangerous>=2.0 in /usr/local/lib/python3.10/dist-pa
Requirement already satisfied: click>=8.0 in /usr/local/lib/python3.10/dist-packages
Requirement already satisfied: pyzmq<25,>=17 in /usr/local/lib/python3.10/dist-packag
Requirement already satisfied: argon2-cffi in /usr/local/lib/python3.10/dist-packages
Requirement already satisfied: nbconvert>=5 in /usr/local/lib/python3.10/dist-packages
Requirement already satisfied: Send2Trash>=1.8.0 in /usr/local/lib/python3.10/dist-pa
Requirement already satisfied: terminado>=0.8.3 in /usr/local/lib/python3.10/dist-pa
Requirement already satisfied: prometheus-client in /usr/local/lib/python3.10/dist-pa
Requirement already satisfied: nbclassic>=0.4.7 in /usr/local/lib/python3.10/dist-pa
Requirement already satisfied: jupyter-server>=1.8 in /usr/local/lib/python3.10/dist-p
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Requirement already satisfied: beautifulsoup4 in /usr/local/lib/python3.10/dist-packa
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Requirement already satisfied: defusedxml in /usr/local/lib/python3.10/dist-packages
Requirement already satisfied: entrypoints>=0.2.2 in /usr/local/lib/python3.10/dist-pa
Requirement already satisfied: jupyterlab-pygments in /usr/local/lib/python3.10/dist-p
Requirement already satisfied: mistune<2,>=0.8.1 in /usr/local/lib/python3.10/dist-pa
Requirement already satisfied: nbclient>=0.5.0 in /usr/local/lib/python3.10/dist-packa
Requirement already satisfied: pandocfilters>=1.4.1 in /usr/local/lib/python3.10/dist
Requirement already satisfied: tinycss2 in /usr/local/lib/python3.10/dist-packages (fr
Requirement already satisfied: argon2-cffi-bindings in /usr/local/lib/python3.10/dist
Requirement already satisfied: enviro<4,>=3.1.0 in /usr/local/lib/python3.10/dist-pack
```

```
blood = get_data('blood')
```

	Recency	Frequency	Monetary	Time	Class	
0	2	50	12500	98	1	
1	0	13	3250	28	1	
2	1	16	4000	35	1	
3	2	20	5000	45	1	
4	1	24	6000	77	0	

```
data.shape
```

(748, 5)

```
data.columns
```

Index(['Recency', 'Frequency', 'Monetary', 'Time', 'Class'], dtype='object')

```
data.size
```

```
3740

748*5
```

```
3740

data.head()
```

	Recency	Frequency	Monetary	Time	Class	
0	2	50	12500	98	1	
1	0	13	3250	28	1	
2	1	16	4000	35	1	
3	2	20	5000	45	1	
4	1	24	6000	77	0	

```
data.tail()
```

	Recency	Frequency	Monetary	Time	Class	
743	23	2	500	38	0	
744	21	2	500	52	0	
745	23	3	750	62	0	
746	39	1	250	39	0	
747	72	1	250	72	0	

```
data.describe()
```

	Recency	Frequency	Monetary	Time	Class	
count	748.000000	748.000000	748.000000	748.000000	748.000000	
mean	9.506684	5.514706	1378.676471	34.282086	0.237968	
std	8.095396	5.839307	1459.826781	24.376714	0.426124	
min	0.000000	1.000000	250.000000	2.000000	0.000000	
25%	2.750000	2.000000	500.000000	16.000000	0.000000	
50%	7.000000	4.000000	1000.000000	28.000000	0.000000	
75%	14.000000	7.000000	1750.000000	50.000000	0.000000	
max	74.000000	50.000000	12500.000000	98.000000	1.000000	



```
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```

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2	1	16	4000	35	1	
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4	1	24	6000	77	0	



```
blood.columns

Index(['Recency', 'Frequency', 'Monetary', 'Time', 'Class'], dtype='object')

blood.head()
```

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25%	2.750000	2.000000	500.000000	16.000000	0.000000	
50%	7.000000	4.000000	1000.000000	28.000000	0.000000	
75%	14.000000	7.000000	1750.000000	50.000000	0.000000	
max	74.000000	50.000000	12500.000000	98.000000	1.000000	

```
blood ['Class'].value_counts()
```

```
0    570
1    178
Name: Class, dtype: int64
```

```
from pycaret.classification import *
s = setup(data=blood, target='Class')
```

	Description	Value
0	Session id	5615
1	Target	Class
2	Target type	Binary
3	Original data shape	(748, 5)
4	Transformed data shape	(748, 5)
5	Transformed train set shape	(523, 5)
6	Transformed test set shape	(225, 5)
7	Numeric features	4
8	Preprocess	True
9	Imputation type	simple
10	Numeric imputation	mean
11	Categorical imputation	mode
12	Fold Generator	StratifiedKFold
13	Fold Number	10
14	CPU Jobs	-1
15	Use GPU	False
16	Log Experiment	False
17	Experiment Name	clf-default-name
18	USI	fc4a