activites_categories

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Adnan Akbas # activity categories ## activities.csv

[1]:
```
from utils import read_functions
import os
import numpy as np
```

[20]:
```
def extract_activities_from_correspondent(correspondent):
    # Getting dataset for a correspodent
    activities_df = read_functions.read_activities(correspondent)

    return np.unique(activities_df.index.to_numpy())
```

[21]:
```
def extract_activities():
    all_activities = []

    for directory in os.walk('../../data'):
        if directory[0] == '../../data':
            for respDirect in directory[1]:
                if respDirect not in ['output', 'throughput', '.
 ↪ipynb_checkpoints']:
                    correspondent_activities =␣
 ↪extract_activities_from_correspondent(respDirect)
                    all_activities = np.concatenate([all_activities,␣
 ↪correspondent_activities])

    print("Done extracting activities")

    return np.unique(all_activities)
```

[22]:
```
activities = extract_activities()
```

```
Done extracting activities
```

[23]:
```
activities
```

[23]:
```
array(['fietsen licht', 'fietsen zwaar', 'lopen', 'rennen', 'springen',
       'staan', 'traplopen', 'zitten'], dtype=object)
```

After conversation with one of our experts we have decided to exclude cycling.

This means the categories that will be used are :

Dutch	English
lopen	walking
rennen	running
springen	jumping
staan	standing
traplopen	walking stairs
zitten	sitting
fietsen licht	Cycling light
fietsen zwaar	Cycling hard

[24]:
```
activities = ['lopen', 'rennen', 'springen', 'staan', 'traplopen', 'zitten']
```

0.1 Vyntus

[25]:
```
from utils import read_functions
from sensors.vyntus import *

import os
import numpy as np

vyntus = Vyntus()
```

[27]:
```
def extract_activities_from_vyntus(correspondent):
    # Getting dataset for a correspodent
    vyntus_df = vyntus.read_data(correspondent)

    return np.unique(vyntus_df['vyn_activity'].to_numpy())

def extract_activities_from_all_vyntus_data():
    all_activities = []

    for directory in os.walk('../../data'):
        if directory[0] == '../../data':
            for respDirect in directory[1]:
                if respDirect not in ['output', 'throughput', '.
↪ipynb_checkpoints']:
                    try:
                        correspondent_activities =␣
↪extract_activities_from_vyntus(respDirect)
                        all_activities = np.concatenate([all_activities,␣
↪correspondent_activities])
```

```
                    except:
                        print(respDirect, 'something went wrong')

    print("Done extracting activities")

    return np.unique(all_activities)


activites = extract_activities_from_all_vyntus_data()
```

```
extracting:  BMR099
extracting:  BMR025
Could not read file: ../../data/BMR025/vyntus.csv
BMR025 something went wrong
extracting:  BMR060
No data for respondnet: BMR060
extracting:  BMR012
extracting:  BMR035
extracting:  BMR030
extracting:  BMR051
extracting:  BMR044
extracting:  BMR043
extracting:  BMR004
extracting:  BMR011
extracting:  BMR098
extracting:  BMR034
extracting:  BMR014
extracting:  BMR036
extracting:  BMR052
extracting:  BMR002
extracting:  BMR031
extracting:  BMR097
extracting:  BMR008
extracting:  BMR015
extracting:  BMR033
extracting:  BMR100
extracting:  BMR064
extracting:  BMR055
extracting:  BMR027
No data for respondnet: BMR027
extracting:  BMR041
extracting:  BMR053
extracting:  BMR042
extracting:  BMR018
extracting:  BMR058
extracting:  BMR040
extracting:  BMR032
```

```
Done extracting activities
```

[19]:
```
activites
```

[19]:
```
array(['fietsen', 'lopen', 'staan', 'zitten'], dtype=object)
```

[ ]:
```

```