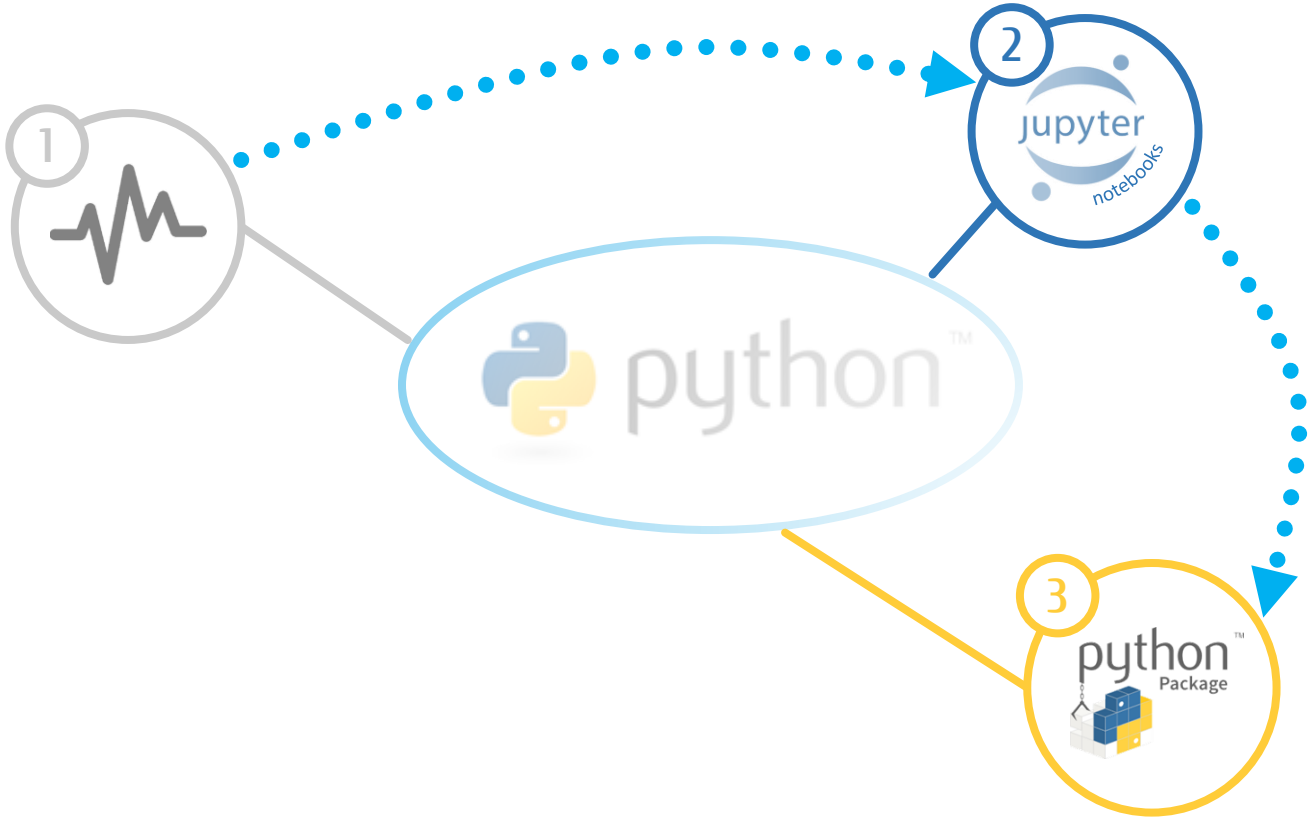

bioroots
notebooks

Description

Through Python language, some signal processing tasks (1) are illustrated following a step by step methodology supported by Jupyter Notebook (2) environment. This interactive experience can be complemented and developed with the biosignalsnotebooks (3) Python package, which synthesises the described processing functionalities in different modules and their functions.



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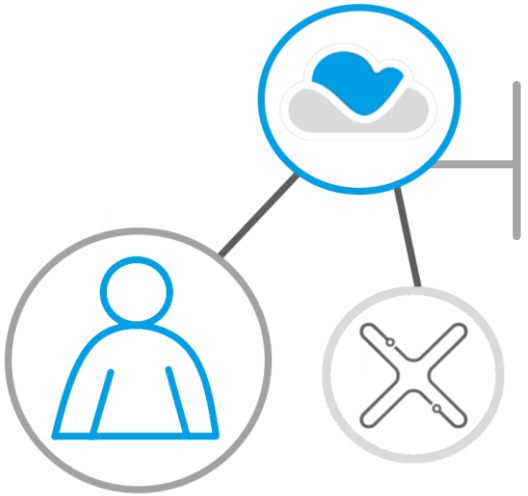
Purposes

Extension of OpenSignals



Open Contribution to the User

Facilitates Learning

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Notebook Categories

Data Acquirement

Record
- Configurate
- Indicate
- Archive

Load
- Open
- Read
- Convert

Visualise
- Draw
- Interpret
- Zoom

- Pre and Post Record Tasks
- Data Access
- Graphical Data Visualisation

Signal Processing

Pre-Process
- Smooth
- Normalise
- Denoise
- Filter

Detect
- Recognise
- Segment
- Annotate

Extract
- Calculate
- Generate
- Vectorise
- Optimise

- Multichannel Signal Processing
- Automatic Event Detection
- Parameter Extraction

Machine Learning

Train
- Model
- Tune
- Train

Classify
- Decide
- Decode

Understand
- Analyse
- Explain
- Interact
- Imitate

Evaluate
- Compare
- Characterise
- Validate
- Report

- Feature Vector Generation
- Application of Learned Knowledge
- Data Explanation
- Results Analysis

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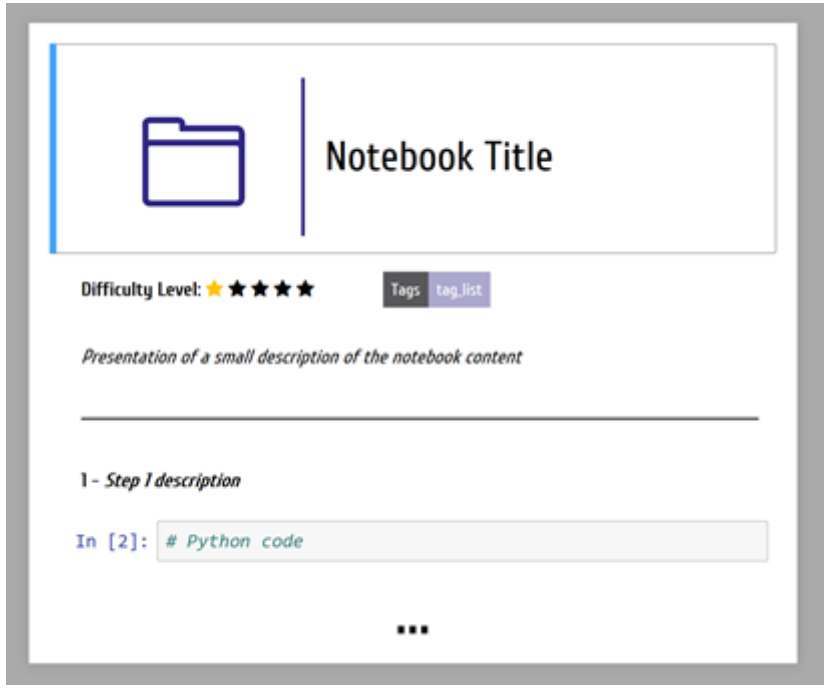
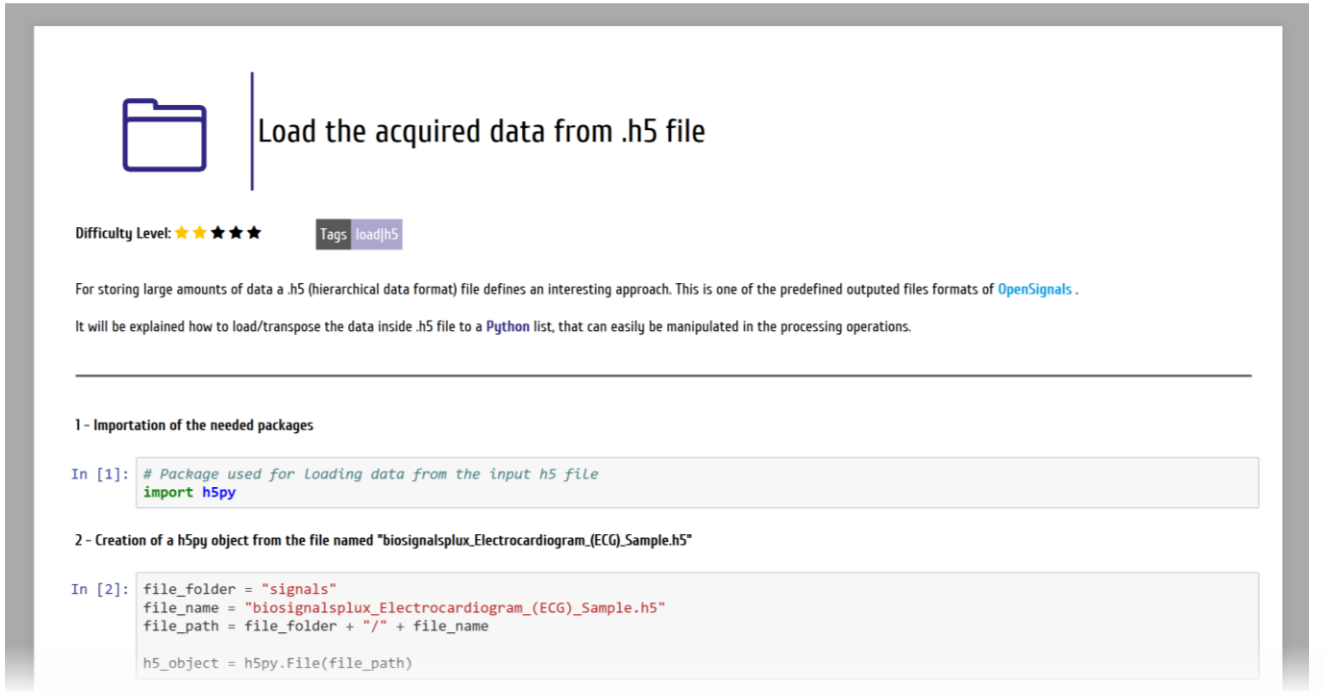
Notebook Example





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Link to biosignalsnotebooks

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