

# Cloud SDK Sample Application Python IDE Functional Specifications

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# 1. Change history

Date	What/Why
2022/11/16	Initial draft
2023/1/30	Unified the swinging of expressions Updated the PDF build environment

# 2. Introduction

• This book is functional specifications of a Codespaces development environment for Python.

# 3. Terms/Abbreviations

Terms/Abbreviations	Meaning
Console Access Library	SDK that provides access to the Console for AITRIOS
Codespaces	Cloud-hosted and containerized VS Code environment from GitHub

# 4. Reference materials

- Codespaces documentation (external link)
  - https://docs.github.com/ja/codespaces

# 5. Expected use case

- Provide a Codespaces development environment for Python.
  - Users can launch Codespaces from the repository and get a development environment for Python with SDK-provided libraries and tools to aid development.

### 6. Functional overview/Algorithm

#### **Functional overview**

- Users can launch Codespaces from the repository and get a development environment for Python.
  - As an editor, VS Code's UI runs in the browser.
- Provide an environment in which SDK-provided libraries required for application development can be used.
  - Add submodules from the GitHub repository to the environment.
- Provide an environment where development aids can be used.
  - Add extensions to the environment to facilitate development work, such as input completion and debugging aids.

#### **Algorithm**

- 1. Build a container environment using a specified Python base image.
- 2. Visit the VS Code's marketplace to install the extension.
  - Python
     Features for the Python development environment are available.
  - Pylance
     Input completion is available in the Python environment.
  - Jupyter
  - Jupyter Keymap
     Jupyter Notebook is available on VS Code as a debugging aid for Python development.
- 3. Run shell scripts to add libraries to the environment as submodules.
  - Console Access Library
     Provide access to the Console for AITRIOS.

#### **Under what condition**

- You have access to Codespaces.
- You have access to the private repository for the Console Access Library.

#### <u>API</u>

• None

# Others exclusive conditions/Specifications

• None

# 7. User interface specifications

#### **How to start**

Procedures to build an environment with Codespaces
 User forks the development environment (repository) and launches Codespaces on the replicated repository. After launch, a prep screen provided by Codespaces is displayed while the environment is being built.

# 8. API parameters in each block

None

# 9. Target performances/Impact on performances

None

# 10. Assumption/Restriction

• None

# 11. Unconfirmed items

None