# cheatsheet

**Version: 0.1.0**

## Launch PyAEDT

Launch an HFSS instance locally:

```
import pyaedt
# test
hfss = pyaedt.Hfss(specified_version="2023.1",
    non_graphical=False,
    new_desktop_session=True,
    projectname="Project_name",
    designname="Design_name")
```

Exit your local instance:

```
hfss.release_desktop()
```

## variable class

The `hfss.variable_manager` class handles all variables.
Create a variable that only applies to this design:

```
hfss["dim"] = "1mm"
```

## Material classes

The `hfss.materials` class is used to access the materials library.

```
my_mat = hfss.materials.add_material("myMat")
my_mat.permittivity = 3.5
my_mat.conductivity = 450000
my_mat.permeability = 1.5
```


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### References from PyAEDT documentation

- Getting Started
- HFSS
- Q3D