Geometric & Graphics Programming Lab: Lecture 25

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1. Workshop N.10 – Housing: coherent assembly of plugins

2. Minimal git/github instructions

Workshop N.10 – Housing: coherent assembly of plugins

Housing: coherent assembly of plugins

Goal: Develop a parametric model of a multistorey house in Python, by coherently assembling several plugings previously designed and developed.

Figure 1: Images from Google

Design constraints

- file input (filetype `.lines`) of 2D wire-frame design (either single- or multi-storey)

The MultistoreyHouse() plugin must include (at least) parametric pluging for:

- internal/external staircase
- structure's spatial frame
- roof
- doors/windows

Look at some examples

- house 2 storey plans
- multi story house designs
- house design plans
- house plans

Some terminology

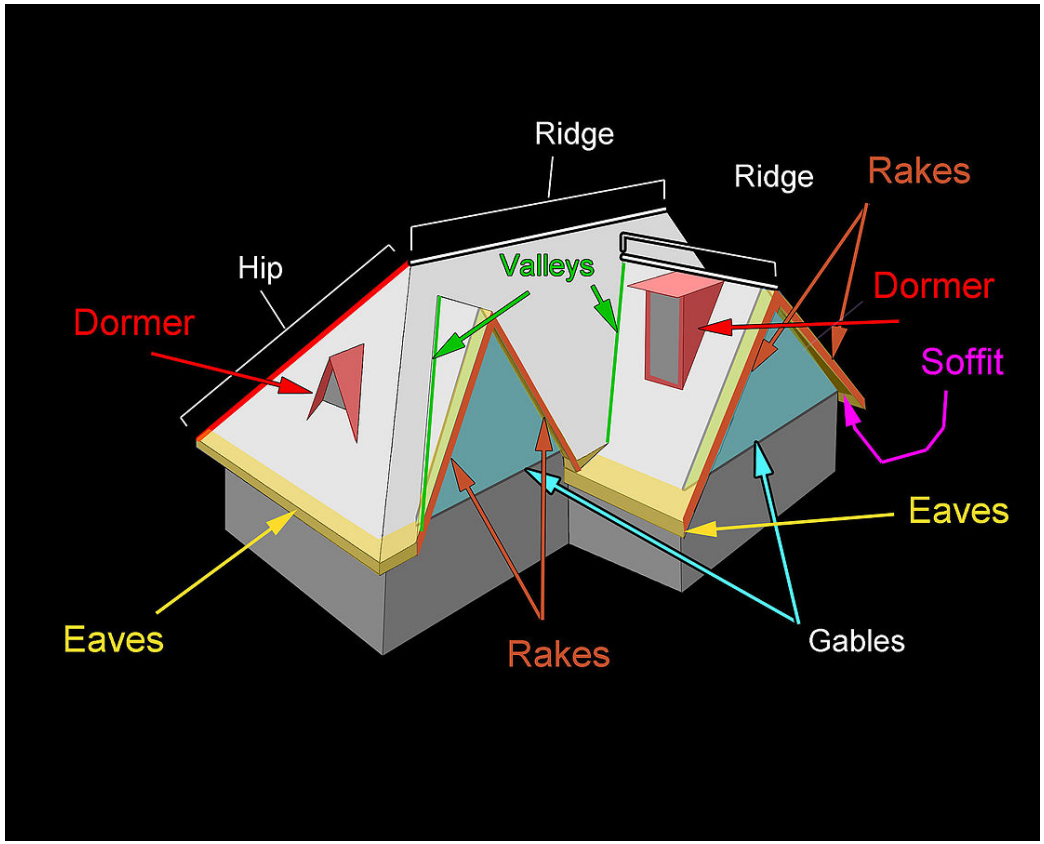

Figure 2: https://en.wikipedia.org/wiki/Roof#/

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REQUIREMENTS

- Write a single notebook, named `workshop_10.ipynb`
- Choose a notebook Title, for example `<Design_of_parametric_multistorey_house>`
- Start the notebook with a web reference and one/more image/s of your type of design
- List the variables used in your code, with a textual definition
- Include the coding of one main parametric function named `multistorey_house`
- Please currying the main function (n. of levels free):
- Choose your own formal parameters
- Provide the images generated by some executions with very different actual parameters.
- Use measures in meters (m)

Style specs

- use meaningfull identificators (variables and parameters)
- use camelCase ids
- add Python `docstrings` (google for it)
- produce a single notebook file, named workshop_10.ipynb
- file path: `your_repo/2017-01-13/workshop_10.ipynb`

Minimal git/github instructions

Minimal git/github instructions (1/2)

create your local repository

```
$ mkdir 2017-01-13
$ cd 2017-01-13
$ touch workshop_10.ipynb
```

Minimal git/github instructions (2/2)

commit your work

```
$ git add -A .
$ git commit -m "add a short note to commit"
$ git push origin master
```