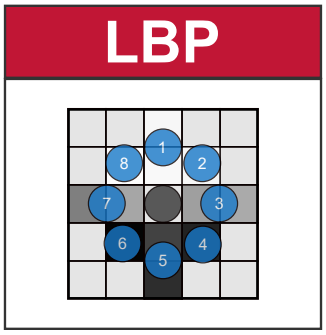
1 Setup Environment

- Please read the setup instructions in python-setup.pdf and install anaconda and the environment in ml-course3.6-env.yml.
- Open the *Python and Jupyter - Introduction* notebook in jupyter notebook. And work through it to get used to python and our packages.

2 Exercise - Local Binary Patterns

In this exercise your task is to implement the Local Binary Pattern feature extractor in python using the ImageTools as discussed during the lecture. Your goal is to implement a function that takes a numpy array as input and computes a dense feature vector (a histogram) using the LBP methodology as discussed during the course.



- Implement it as a function in a jupyter notebook.
- You can use a simple 8-pixel neighborhood.
- Verify your results on data of our choice (I suggest using the cifar10 images provided by tensorflow - see the introduction notebook) by visualizing the features of some real images of your choice (use the `draw_histogram()` function to look at our dense features.)
- Send in your jupyter notebook until Wednesday 31.03.2021 via `ilias.fhv.at`.