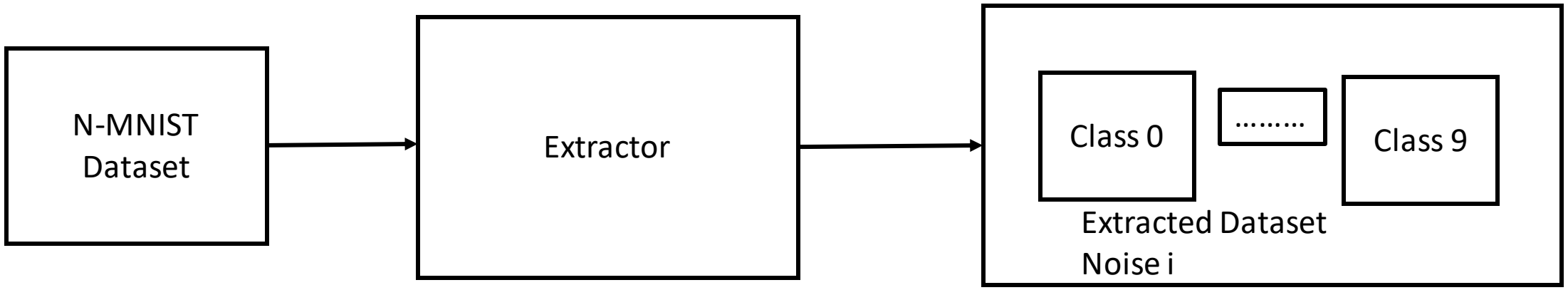
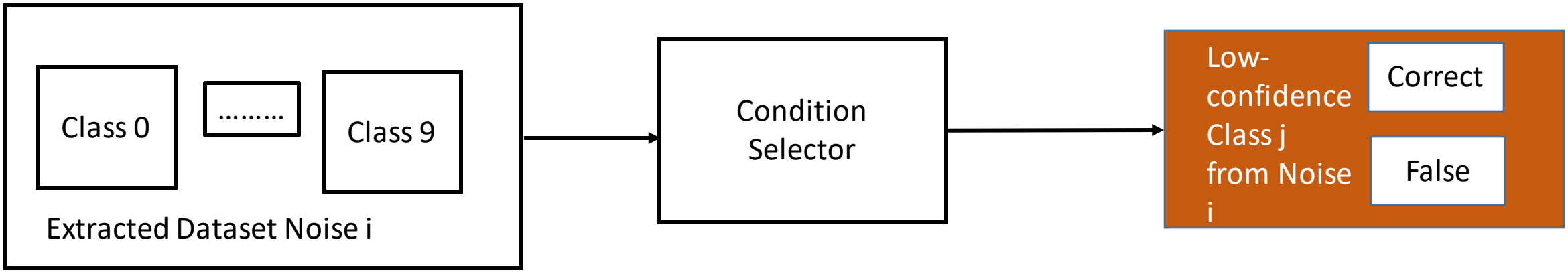


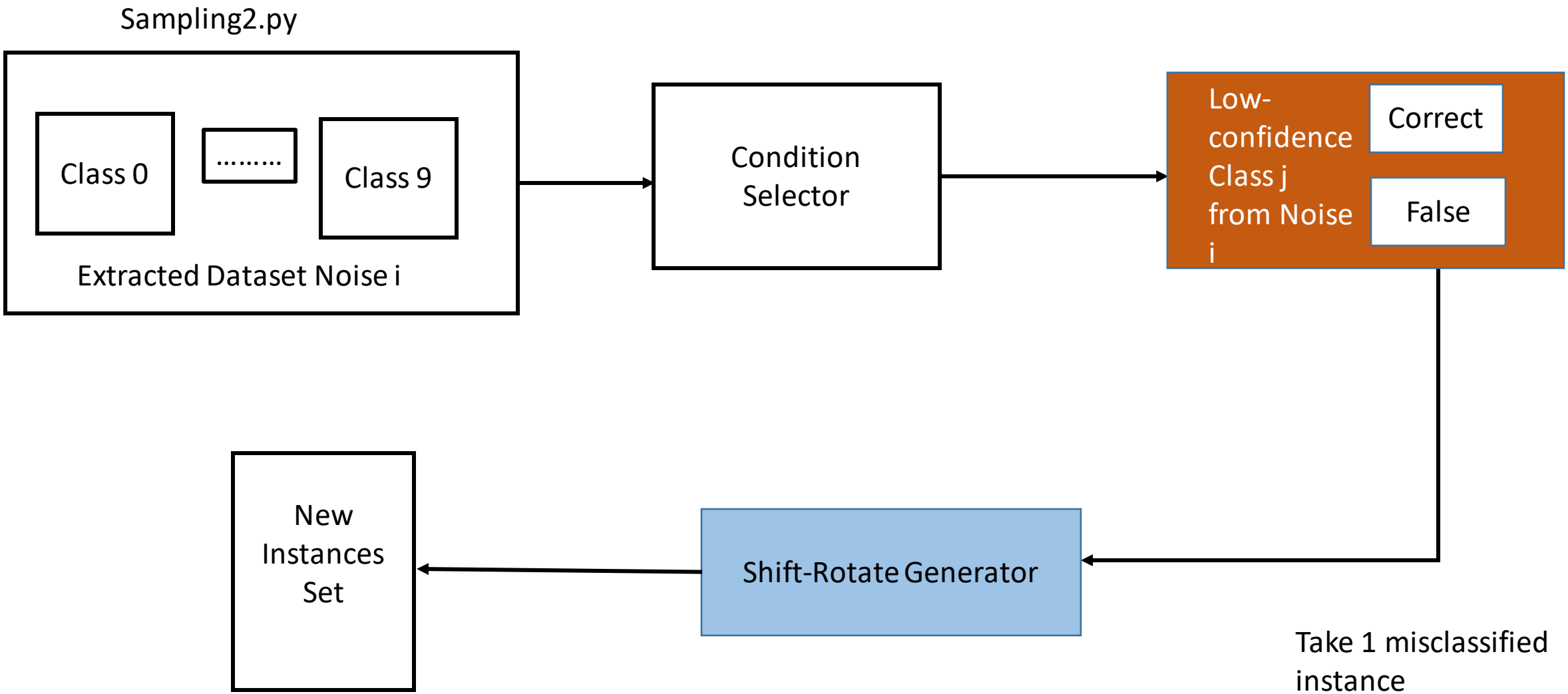
i = ‘awgn’, ‘motion’, reduced

Extract_Noise_Dataset.py

Sampling1.py

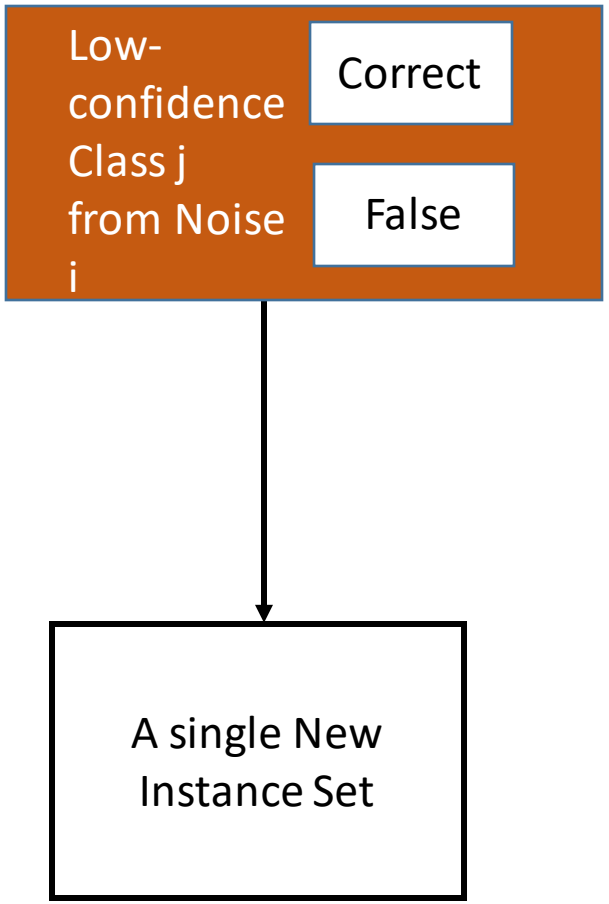


Condition Selector: If the initial model has an accuracy lower than the specified threshold, that class would be selected.



In Shift-Rotate Generator, you can specify the accuracy of initial model on the shifted-rotated set

Assembly



Parameters can be specified:

1.Noise i

2.Size of new Instance Set

3.Accuracy of initial model on new instance

4.Class j

Please be aware that class j should be those selected by the condition selector

Assembly

noise_functions_in_each_set_list = [‘awgn’,’motion’,’reduced’]

It means ‘awgn’ noise in Set 1, ‘motion’ noise in set 2, ‘reduced’ noise in set

classes_in_each_pattern_dict = {‘awgn’: 4, ‘motion’: 9, ‘reduced’: 1}

It means digit 4 from ‘awgn’ is in Set 1, digit 9 from ‘motion’ in Set 2, and digit 1 from ‘reduced’ in Set 3.

Accuracy_of_each_class_in_each_pattern_dict = {‘awgn’:{ 4:0.5}, ‘motion’: {9:0.5}, ‘reduced’: {1:0.5}}

For instance, in Set 1, the initial model have 50% accuracy on digit 4 from ‘awgn’

Size_of_each_class_in_each_pattern_dict = {‘awgn’:{ 4:20}, ‘motion’: {9:20}, ‘reduced’: {1:20}}

For instance, in Set 1, the initial model have 20 digit 4 from ‘awgn’