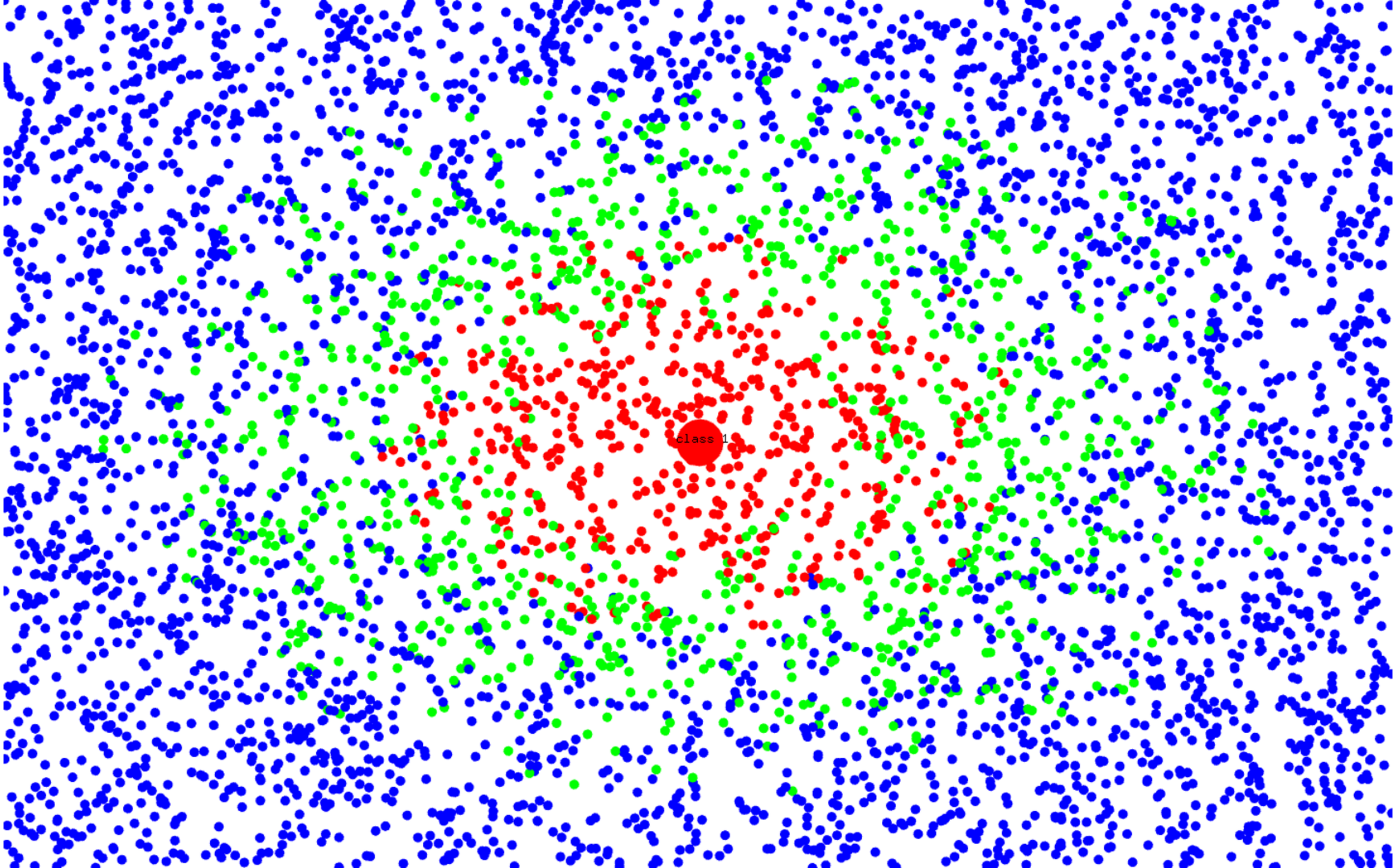
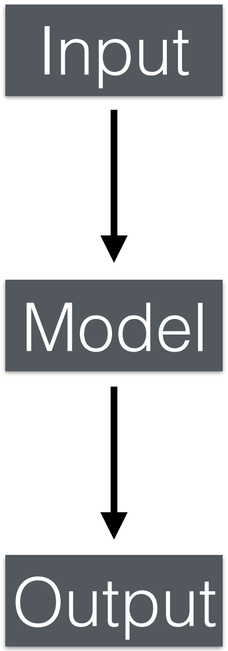
Classification

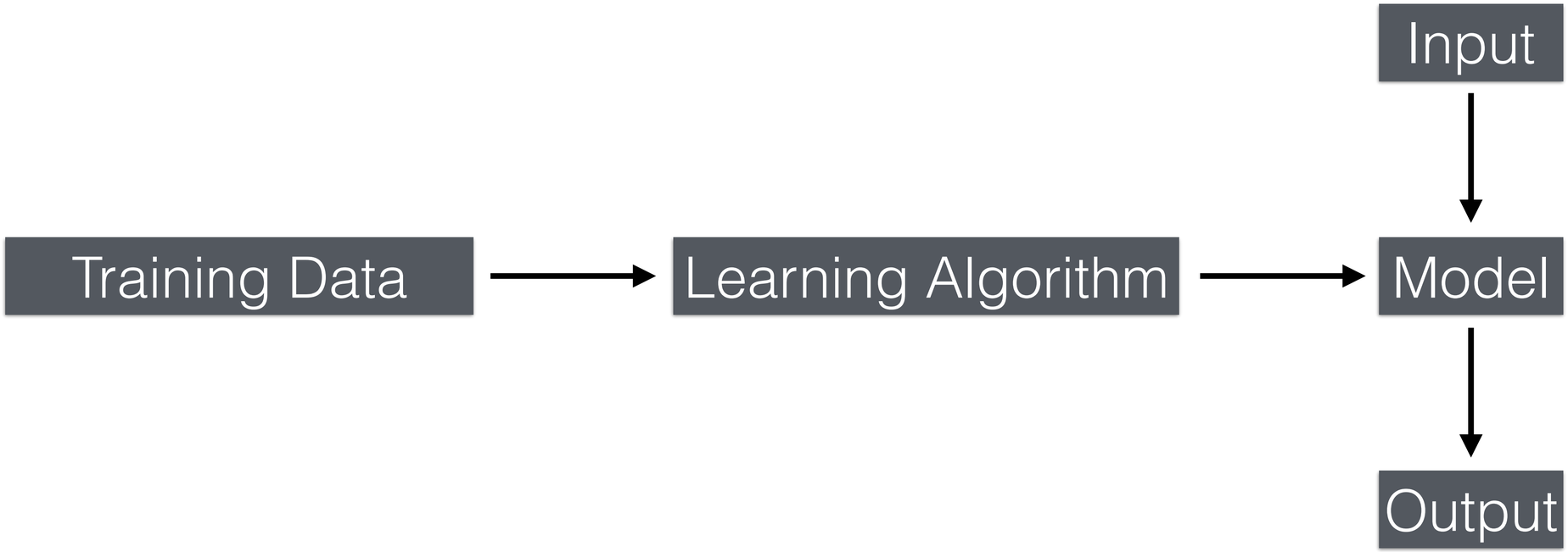
Classification

- is credit card transaction fraudulent - input past transactions
- do tests suggest medical patient has condition - input symptoms, test results
- is email spam - input keywords
- is there a face in picture, or face a particle location - presence of certain patterns of pixels
- are you going to buy product, past bought products, what websites you browse
- is music playing
- which instrument is playing
- what is the note
- will i like the song
- MUSIC Information retrieval
- what pose person in
- what bow strokes cellist is using
- what part of stage is person on
- is tweet angry
- is it raining
- will stock go up or down


class 1

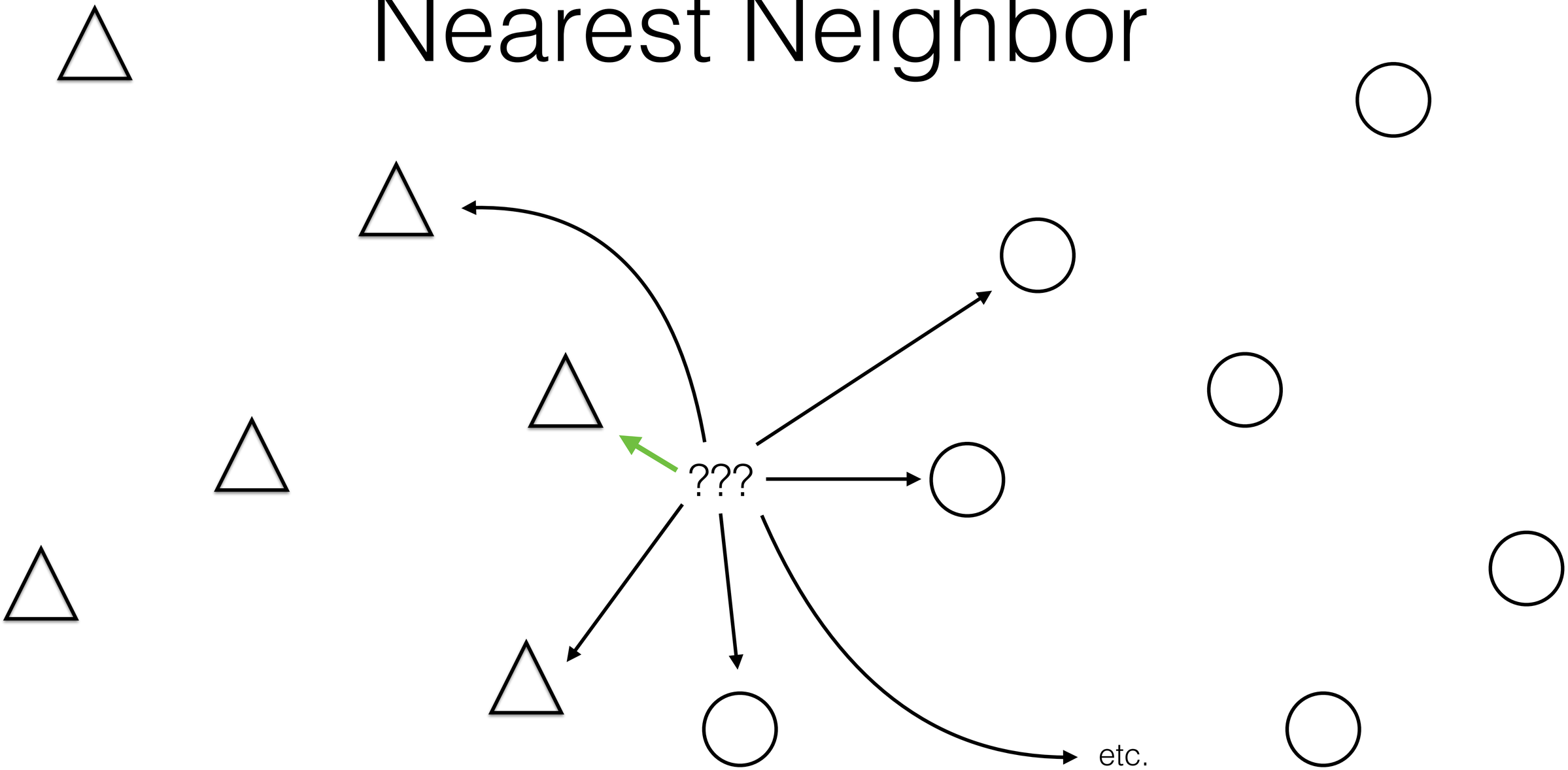

Input
Model
Output

Build a simple classifier in Processing

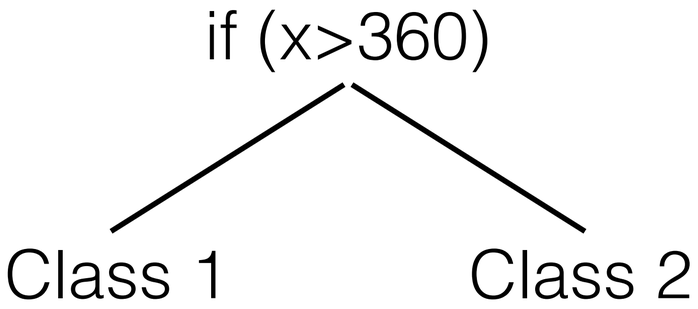

Input
Training Data
Learning Algorithm
Model
Output

Wekinator!

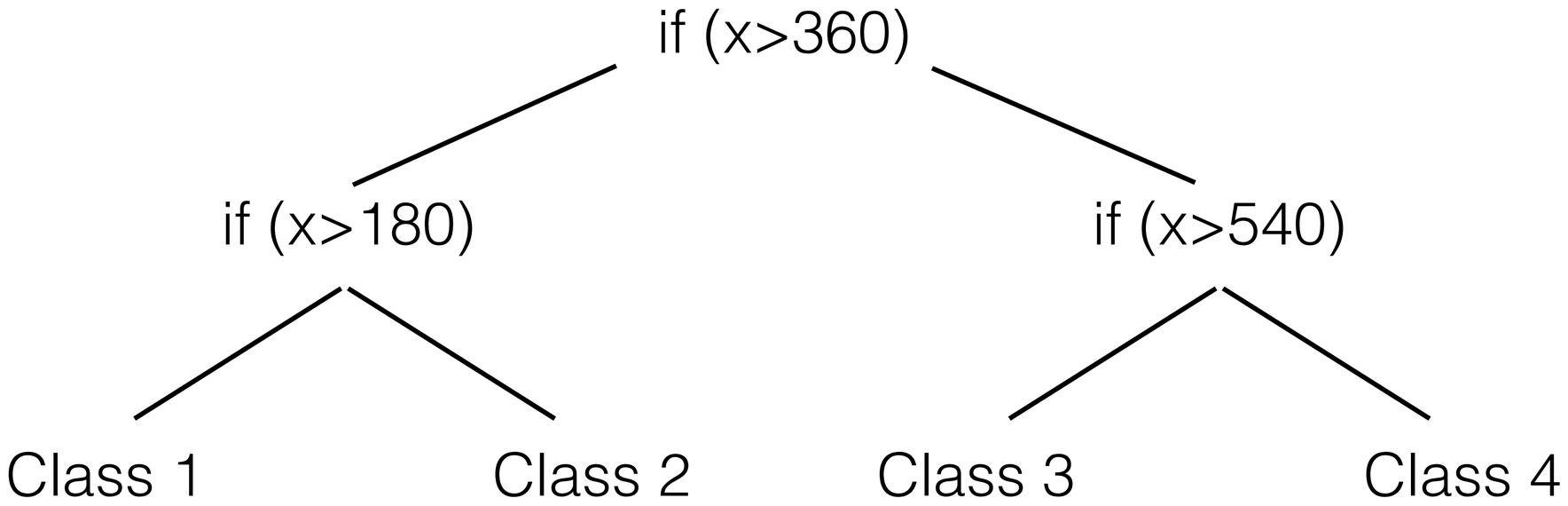
Nearest Neighbor



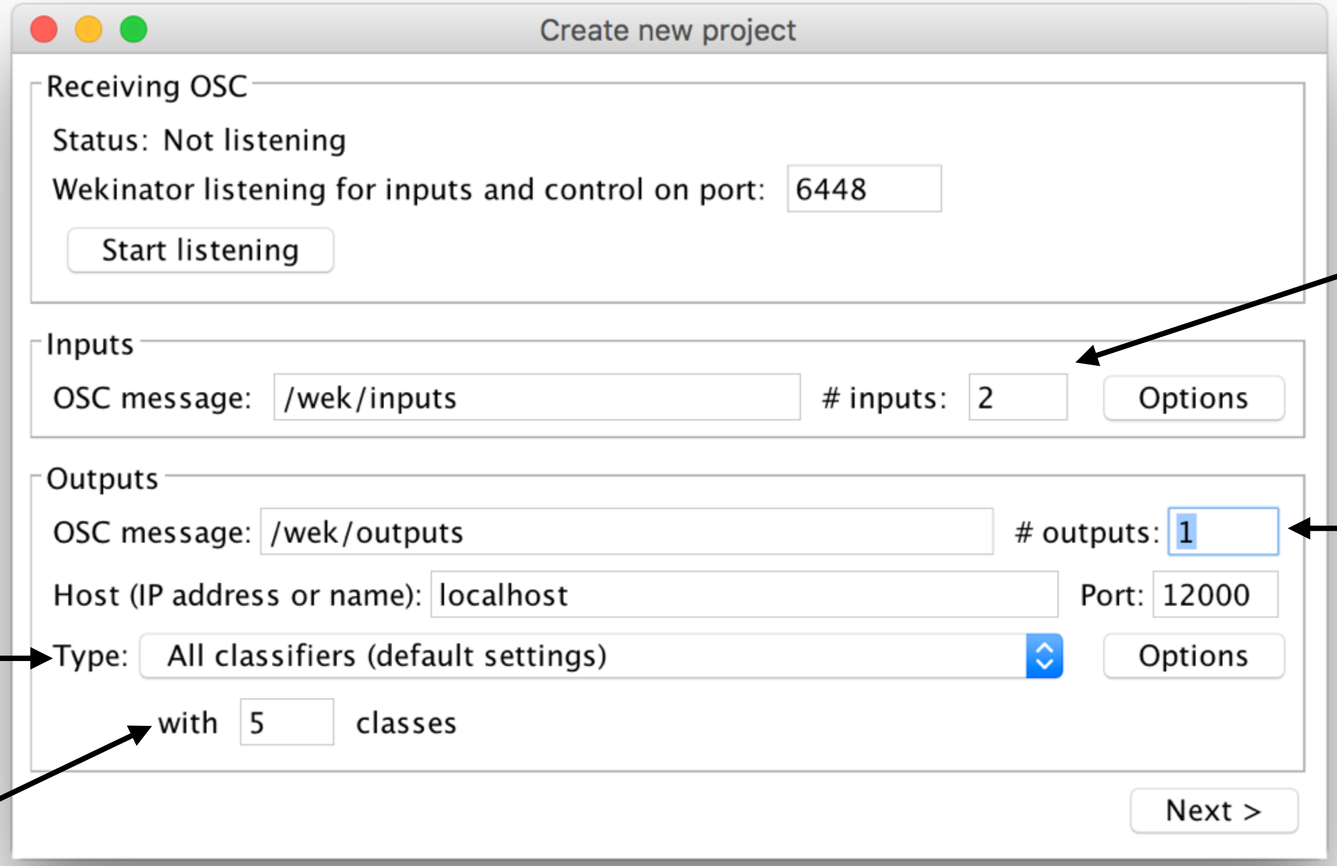
Decision Stump



Decision Tree



Wekinator Classifier Setup

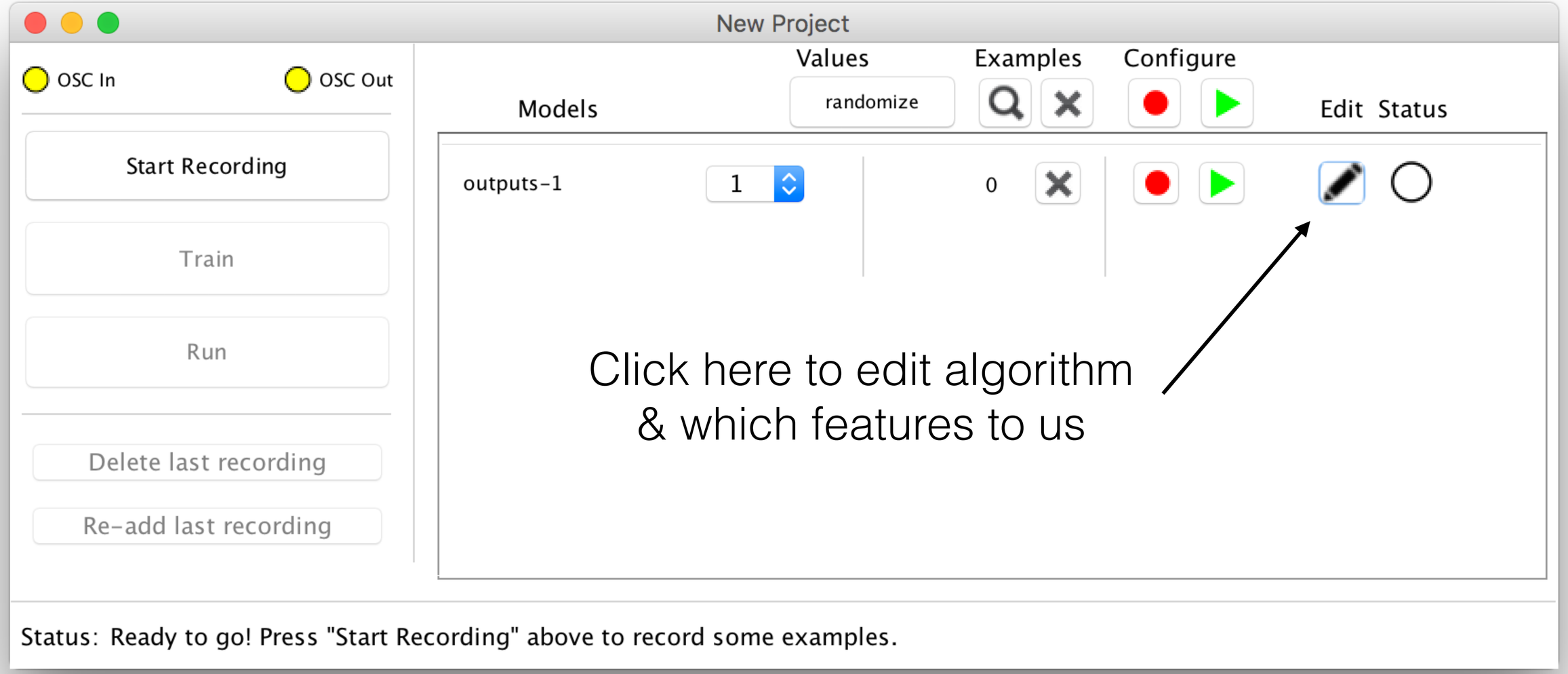


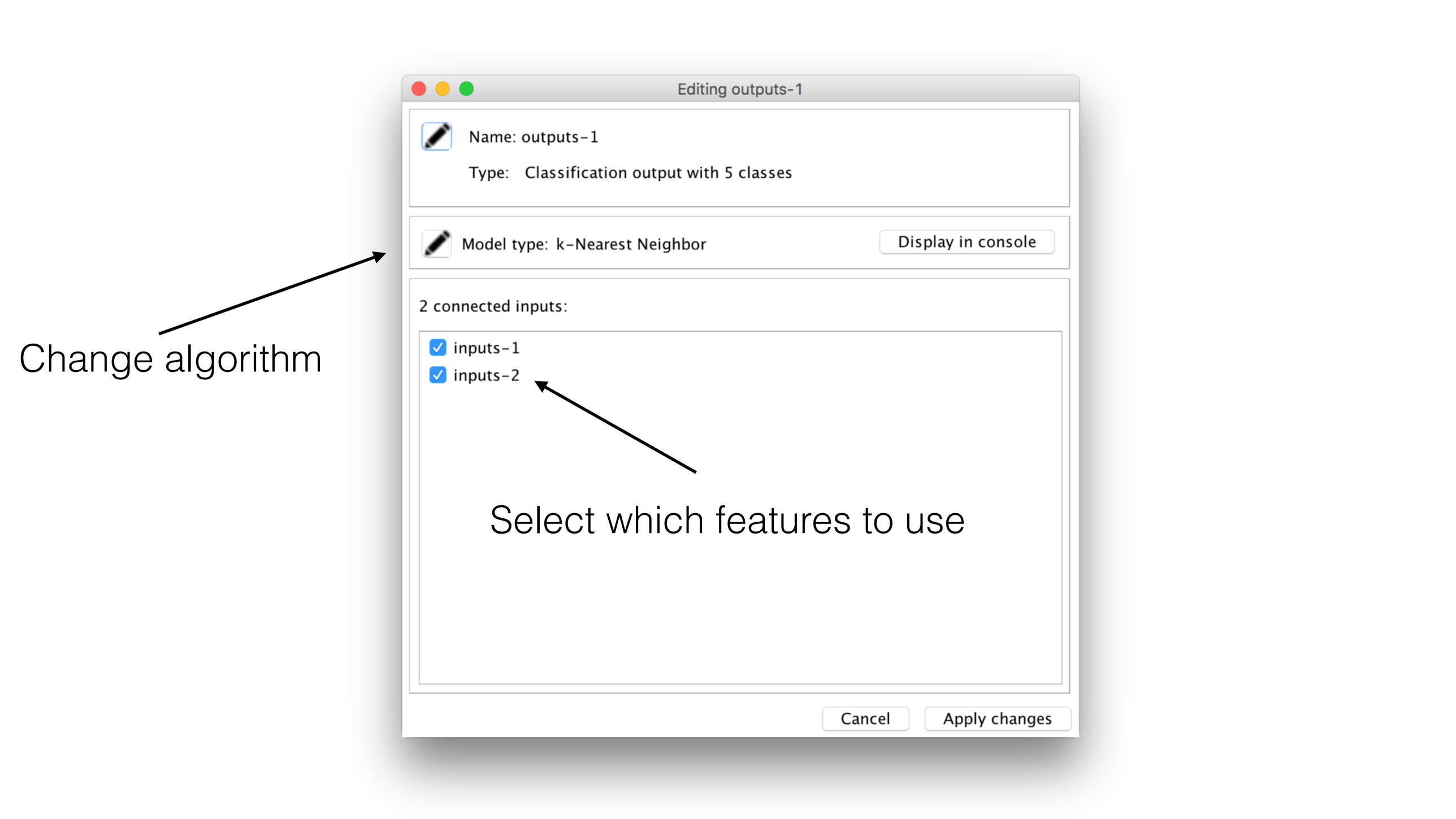
Select how many features you have (2 for mouse x,y)

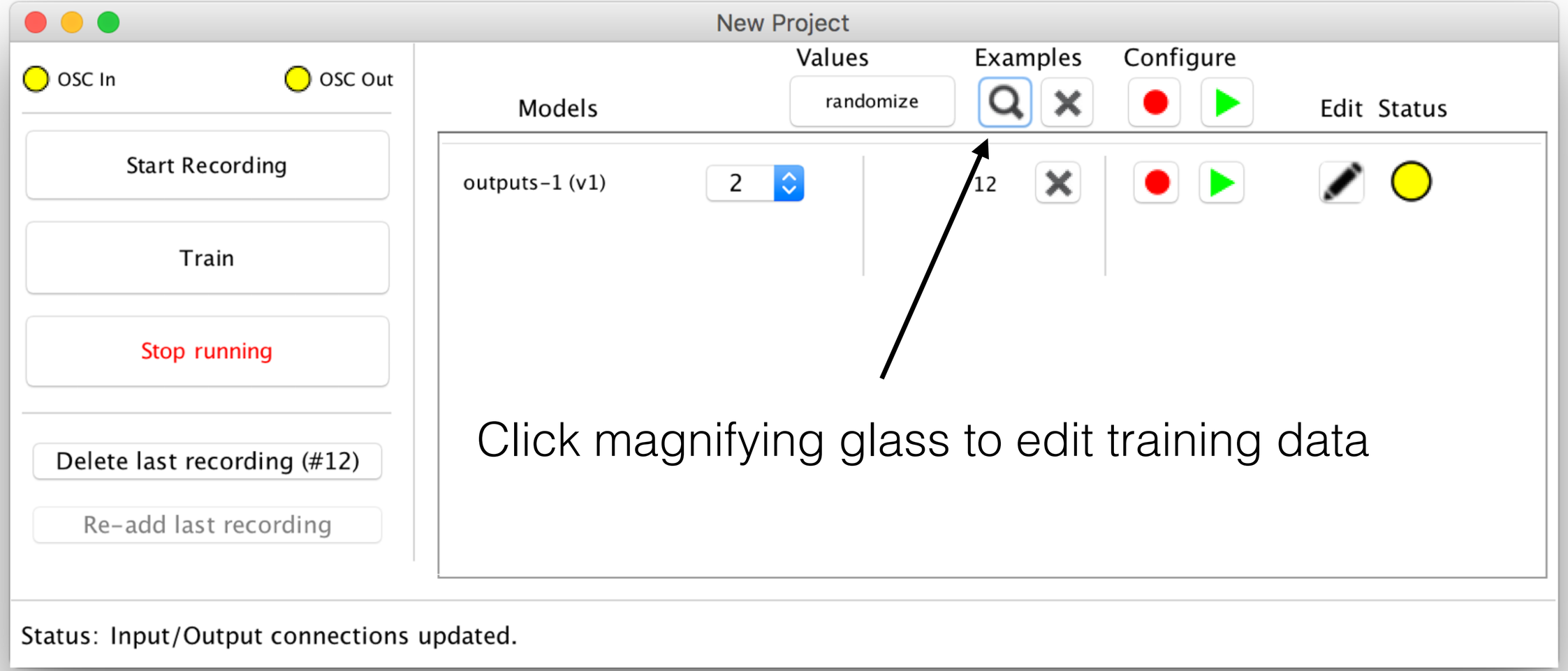
Select 1 Output

Select *All Classifiers*

Default 5 classes is fine


New Project
OSC In
OSC Out
Start Recording
Train
Run
Delete last recording
Re-add last recording
Values
Examples
Configure
Models
randomize
Edit
Status
outputs-1
1
0
Click here to edit algorithm
& which features to us
Status: Ready to go! Press "Start Recording" above to record some examples.


Change algorithm
Editing outputs-1
Name: outputs-1
Type: Classification output with 5 classes
Model type: k-Nearest Neighbor
Display in console
2 connected inputs:
inputs-1
inputs-2
Select which features to use
Cancel
Apply changes


New Project
OSC In
OSC Out
Start Recording
Train
Stop running
Delete last recording (#12)
Re-add last recording
Values
Examples
Configure
Models
randomize
Edit
Status
outputs-1 (v1)
2
12
Click magnifying glass to edit training data
Status: Input/Output connections updated.

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- Can save projects and classifiers and reload later, no need to retrain!
    - Saved model needs same number of features in future use