Arduino Naive Bayes Classifier Library

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Contents

1 Hierarchical Index

1.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

2 Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

3 File Index

3.1 File List

Here is a list of all files with brief descriptions:

4 Class Documentation

4.1 Class Class Reference

```
#include <Class.h>
```

Public Member Functions

- Class (unsigned char code)

Private Attributes

- unsigned char code

4.1.1 Detailed Description

Arduino - Naive Bayes Library.

Class.h

Class class.

Author

Dalmir da Silva dalmirdasilva@gmail.com

Definition at line 14 of file Class.h.

4.1.2 Constructor & Destructor Documentation

4.1.2.1 Class::Class (unsigned char *code*)

Definition at line 3 of file Class.cpp.

4.1.3 Member Data Documentation

4.1.3.1 unsigned char Class::code [private]

Definition at line 16 of file Class.h.

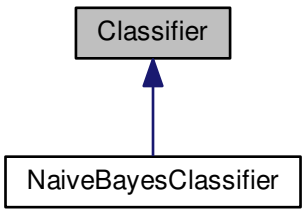
The documentation for this class was generated from the following files:

- Class.h
- Class.cpp

4.2 Classifier Class Reference

`#include <Classifier.h>`

Inheritance diagram for Classifier:



Public Member Functions

- virtual Class classify (Sample ∗sample)=0

4.2.1 Detailed Description

Arduino - Naive Bayes Library.

Classifier.h

Abstract classifier.

Author

Dalmir da Silva dalmirdasilva@gmail.com

Definition at line 14 of file Classifier.h.

4.2.2 Member Function Documentation

4.2.2.1 virtual Class Classifier::classify (Sample * *sample*) [pure virtual]

Implemented in NaiveBayesClassifier.

The documentation for this class was generated from the following file:

- Classifier.h

4.3 Feature Class Reference

`#include <Feature.h>`

4.3.1 Detailed Description

Arduino - Naive Bayes Library.

Feature.h

Feature class.

Author

Dalmir da Silva dalmirdasilva@gmail.com

Definition at line 14 of file Feature.h.

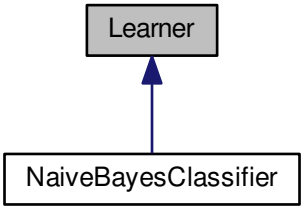
The documentation for this class was generated from the following file:

- Feature.h

4.4 Learner Class Reference

`#include <Learner.h>`

Inheritance diagram for Learner:



Public Member Functions

- virtual void learn (Sample *sample)=0

4.4.1 Detailed Description

Arduino - Naive Bayes Library.

Learner.h

Abstract learner.

Author

Dalmir da Silva dalmirdasilva@gmail.com

Definition at line 16 of file Learner.h.

4.4.2 Member Function Documentation

4.4.2.1 virtual void Learner::learn (Sample * *sample*) [pure virtual]

Implemented in NaiveBayesClassifier.

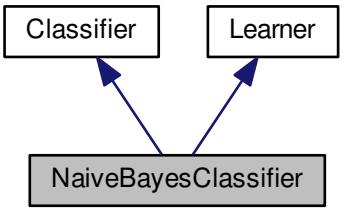
The documentation for this class was generated from the following file:

- Learner.h

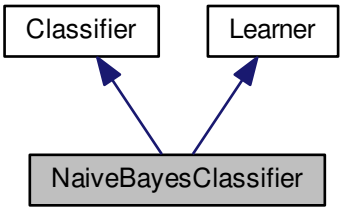
4.5 NaiveBayesClassifier Class Reference

```
#include <NaiveBayesClassifier.h>
```

Inheritance diagram for NaiveBayesClassifier:



Collaboration diagram for NaiveBayesClassifier:



Public Member Functions

- NaiveBayesClassifier ()
- virtual void learn (Sample ∗sample)
- virtual Class classify (Sample ∗sample)

4.5.1 Detailed Description

Arduino - Naive Bayes Library.

NaiveBayesClassifier.h

Naive Bayes Classifier implementation.

Author

Dalmir da Silva dalmirdasilva@gmail.com

Definition at line 16 of file NaiveBayesClassifier.h.

4.5.2 Constructor & Destructor Documentation

4.5.2.1 NaiveBayesClassifier::NaiveBayesClassifier ( )

Definition at line 3 of file NaiveBayesClassifier.cpp.

4.5.3 Member Function Documentation

4.5.3.1 Class NaiveBayesClassifier::classify (Sample * *sample*) [virtual]

Implements Classifier.

Definition at line 9 of file NaiveBayesClassifier.cpp.

4.5.3.2 void NaiveBayesClassifier::learn (Sample * *sample*) [virtual]

Implements Learner.

Definition at line 6 of file NaiveBayesClassifier.cpp.

The documentation for this class was generated from the following files:

- NaiveBayesClassifier.h
- NaiveBayesClassifier.cpp

4.6 Sample Class Reference

```
#include <Sample.h>
```

4.6.1 Detailed Description

Arduino - Naive Bayes Library.

Sample.h

Abstract classifier.

Author

Dalmir da Silva dalmirdasilva@gmail.com

Definition at line 14 of file Sample.h.

The documentation for this class was generated from the following file:

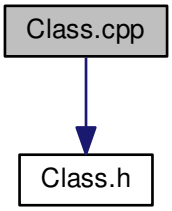
- Sample.h

5 File Documentation

5.1 Class.cpp File Reference

```
#include "Class.h"
```

Include dependency graph for Class.cpp:

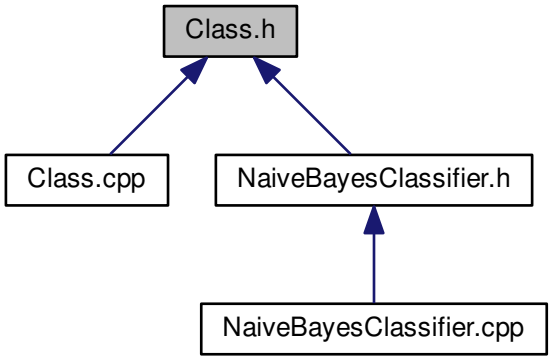


5.2 Class.cpp

```
00001 #include "Class.h"
00002
00003 Class::Class(unsigned char code) : code(code) {
00004 }
```

5.3 Class.h File Reference

This graph shows which files directly or indirectly include this file:



Classes

- class Class

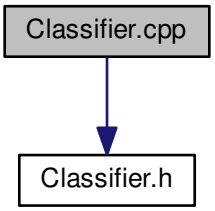
5.4 Class.h

```
00001
00011 #ifndef __ARDUINO_NAIVE_BAYES_CLASS_H__
00012 #define __ARDUINO_NAIVE_BAYES_CLASS_H__ 1
00013
```

```
00014 class Class {
00015
00016     unsigned char code;
00017
00018 public:
00019
00020     Class(unsigned char code);
00021 };
00022
00023 #endif // __ARDUINO_NAIVE_BAYES_CLASS_H__
```

5.5 Classifier.cpp File Reference

`#include "Classifier.h"`
Include dependency graph for Classifier.cpp:

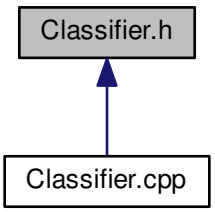


5.6 Classifier.cpp

```
00001 #include "Classifier.h"
```

5.7 Classifier.h File Reference

This graph shows which files directly or indirectly include this file:



Classes

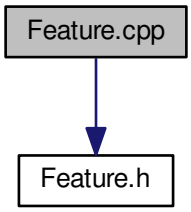
- class Classifier

5.8 Classifier.h

```
00001
00011 #ifndef __ARDUINO_NAIVE_BAYES_CLASSIFIER_H__
00012 #define __ARDUINO_NAIVE_BAYES_CLASSIFIER_H__ 1
00013
00014 class Classifier {
00015
00016 public:
00017
00018     virtual Class classify(Sample *sample) = 0;
00019 };
00020
00021 #endif // __ARDUINO_NAIVE_BAYES_CLASSIFIER_H__
```

5.9 Feature.cpp File Reference

`#include "Feature.h"`
Include dependency graph for Feature.cpp:

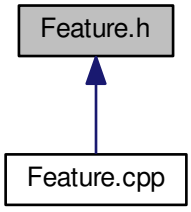


5.10 Feature.cpp

```
00001 #include "Feature.h"
```

5.11 Feature.h File Reference

This graph shows which files directly or indirectly include this file:



Classes

- class Feature

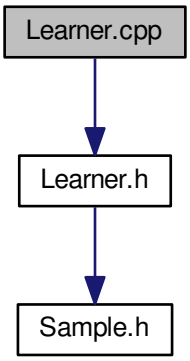
5.12 Feature.h

```
00001
00011 #ifndef __ARDUINO_NAIVE_BAYES_FEATURE_H__
00012 #define __ARDUINO_NAIVE_BAYES_FEATURE_H__ 1
00013
00014 class Feature {
00015
00016 public:
00017
00018 };
00019
00020 #endif // __ARDUINO_NAIVE_BAYES_FEATURE_H__
```

5.13 Learner.cpp File Reference

```
#include "Learner.h"
```

Include dependency graph for Learner.cpp:

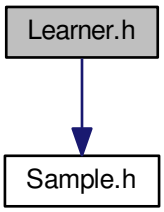


5.14 Learner.cpp

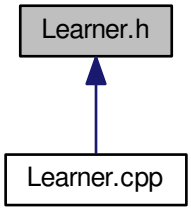
```
00001 #include "Learner.h"
```

5.15 Learner.h File Reference

`#include <Sample.h>`
Include dependency graph for Learner.h:



This graph shows which files directly or indirectly include this file:



Classes

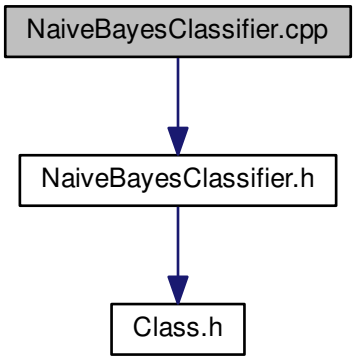
- class Learner

5.16 Learner.h

```
00001
00011 #ifndef __ARDUINO_NAIVE_BAYES_LEARNER_H__
00012 #define __ARDUINO_NAIVE_BAYES_LEARNER_H__ 1
00013
00014 #include <Sample.h>
00015
00016 class Learner {
00017
00018 public:
00019
00020     virtual void learn(Sample *sample) = 0;
00021 };
00022
00023 #endif // __ARDUINO_NAIVE_BAYES_LEARNER_H__
```

5.17 NaiveBayesClassifier.cpp File Reference

`#include "NaiveBayesClassifier.h"`
Include dependency graph for NaiveBayesClassifier.cpp:

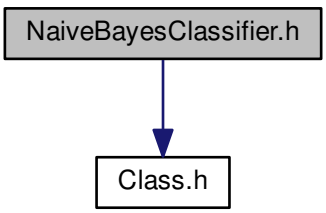


5.18 NaiveBayesClassifier.cpp

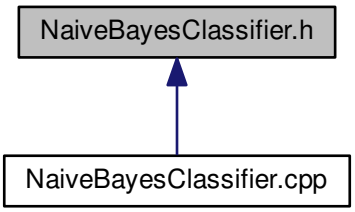
```
00001 #include "NaiveBayesClassifier.h"
00002
00003 NaiveBayesClassifier::NaiveBayesClassifier() {
00004 }
00005
00006 void NaiveBayesClassifier::learn(Sample *sample) {
00007 }
00008
00009 Class NaiveBayesClassifier::classify(Sample *sample) {
00010 }
```

5.19 NaiveBayesClassifier.h File Reference

`#include <Class.h>`
Include dependency graph for NaiveBayesClassifier.h:



This graph shows which files directly or indirectly include this file:



Classes

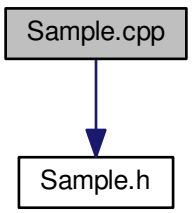
- class NaiveBayesClassifier

5.20 NaiveBayesClassifier.h

```
00001
00011 #ifndef __ARDUINO_NAIVE_BAYES_CLASSIFIER_H__
00012 #define __ARDUINO_NAIVE_BAYES_CLASSIFIER_H__ 1
00013
00014 #include <Class.h>
00015
00016 class NaiveBayesClassifier : public Classifier, public
      Learner {
00017
00018 public:
00019
00020     NaiveBayesClassifier();
00021
00022     virtual void learn(Sample *sample);
00023
00024     virtual Class classify(Sample *sample);
00025 };
00026
00027 #endif // __ARDUINO_NAIVE_BAYES_CLASSIFIER_H__
```

5.21 Sample.cpp File Reference

`#include "Sample.h"`
Include dependency graph for Sample.cpp:

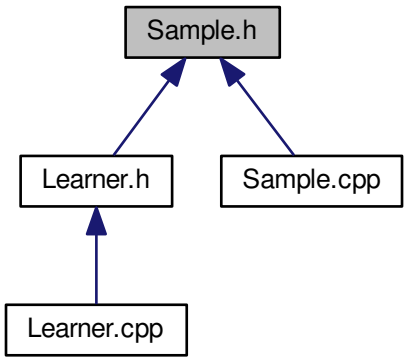


5.22 Sample.cpp

```
00001 #include "Sample.h"
```

5.23 Sample.h File Reference

This graph shows which files directly or indirectly include this file:



Classes

- class Sample

5.24 Sample.h

```
00001
00011 #ifndef __ARDUINO_NAIVE_BAYES_SAMPLE_H__
00012 #define __ARDUINO_NAIVE_BAYES_SAMPLE_H__ 1
00013
00014 class Sample {
00015
00016 public:
00017
00018 };
00019
00020 #endif // __ARDUINO_NAIVE_BAYES_SAMPLE_H__
```

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