```
km::KMeansBase
# int k
# std::vector< Point
   > points
# std::vector< Point
   > centroids
# int number of iterations
+ KMeansBase(const int
  &k. const std::vector
  < Point > &points)
+ KMeansBase(const int &k)
+ virtual ~KMeansBase
  ()=default
+ virtual void run()=0
+ auto getPoints() const
   -> std::vector< Point >
+ auto getCentroids()
   const -> std::vector
  < Point >
+ auto getIterations
  () const -> int
```

km::KMeansMPI std::vector< std::pair

< int, Point > > local
 _points
+ KMeansMPI(const int
 &k, const std::vector
< Point > &points, std
::vector< std::pair< int,</pre>

::vector< std::pair< int,
 Point > local_points)
+ KMeansMPI(const int
 &k, std::vector< std
 ::pair< int, Point > >
 local_points)
+ void run() override