## Route

- # Graph< Location > \*
  cityMap
- # string mode
- # int source
- # int dest
- + Route(Graph< Location > \*map, string m, const int src, const int dt)
- + virtual ~Route()=default
- + virtual bool readFromFile (const string &filename)=0
- + virtual void writeToFile (ostream &outFile)=0
- + virtual void processRoute (ostream &outFile)=0

## **EcoRoute**

- + EcoRoute(Graph< Location > \*map)
- + EcoRoute(Graph< Location > \*map, string m, const int src, const int dt, const int mw, const vector< int > &avoidN, const vector< pair < int, int > > &avoidS)
- + bool readFromFile(const string &filename) override
- + void writeToFile(ostream &outFile) override
- + bool calculateRoute()
- + void calculateAproxSolution (ostream &outFile)
- + void processRoute(ostream &outFile) override

## IndependentRoute

- + IndependentRoute(Graph < Location > \*map)
- + IndependentRoute(Graph < Location > \*map, string m, const int src, const int dt)
- + bool readFromFile(const string &filename) override
- + void writeToFile(ostream &outFile) override
- + void calculateBestRoute()
- + void calculateAltRoute()
- + void processRoute(ostream &outFile) override

## RestrictedRoute

- + RestrictedRoute(Graph < Location > \*map)
- + RestrictedRoute(Graph < Location > \*map, string m, int src, int dt, vector < int > avoidN, vector< pair < int, int > > avoidS, int inc)
- + bool readFromFile(const string &filename) override
- + void writeToFile(ostream &outFile) override
- + void calculateRoute()
- + void processRoute(ostream &outFile) override