Get Improvements

Participants: ME, MS, WebApp, WebServer, Router, ImprovementManager, MAS, ReportMiner, QueryManager, DBMS

- ME → WebApp: getImprovements
- WebApp → WebServer: handleRequest(xmlFile)
- WebServer → Router: forwardRequest(xmlFile)
- Router → ImprovementManager: getNotDoneImprovements(token,municipalityID)
- ImprovementManager → MAS: GET accidents
- MAS ⇢ ImprovementManager: List<Accident>: accidents happened
- ImprovementManager → ReportMiner: getReports(requestType=All,requestField)
- ReportMiner → QueryManager: retrieveValidReports(requestType=All,requestField)
- QueryManager → DBMS: retrieveData()

alt [ExistsAtLeastOneReport]
- DBMS ⇢ QueryManager: data
- QueryManager ⇢ ReportMiner: List<Report>: all valid reports
- ReportMiner ⇢ ImprovementManager: List<Report>: all valid reports
- ImprovementManager → ImprovementManager: updateImprovements()

  Note: Now that new improvements have been found, the improvements database must be updated

  loop [notFinished==True]
  - ImprovementManager → QueryManager: addNewImprovement(improvement)
  - QueryManager → DBMS: addData()
  - DBMS ⇢ QueryManager: confirmation
  - QueryManager ⇢ ImprovementManager: added

    alt [StillAdding]
    - notFinished=True

    alt [FinishAdding]
    - notFinished=False

alt [NotExistsAtLeastOneReport]
- DBMS ⇢ QueryManager: error
- QueryManager ⇢ ReportMiner: NoReportException
- ReportMiner ⇢ ImprovementManager: NoReportException

- ImprovementManager → QueryManager: retrieveImprovements(municipalityID)
- QueryManager → DBMS: retrieveData()

alt [ExistsAtLeastOneImprovement]
- DBMS ⇢ QueryManager: data
- QueryManager ⇢ ImprovementManager: List<Improvement>: all not done improvements
- ImprovementManager ⇢ Router: List<Improvement>: all not done improvements
- Router ⇢ WebServer: XmlFile: response
- WebServer ⇢ WebApp: XmlFile: response
- WebApp → MS: fetchMap(position)
- MS ⇢ WebApp: map
- WebApp ⇢ ME: Improvments

alt [ExistsAtLeastOneImprovementToBeSetCompleted]

  loop [notFinished=True]
  - ME → WebApp: setImprovementStatus
  - WebApp → WebServer: handleRequest(xmlFile)
  - WebServer → Router: forwardRequest(xmlFile)
  - Router → ImprovementManager: setImprovementStatus(token,municipalityID,improvementID)
  - ImprovementManager → QueryManager: updateImprovementStatus(improvementID)
  - QueryManager → DBMS: addData()
  - DBMS ⇢ QueryManager: confirmation
  - QueryManager ⇢ ImprovementManager: status set
  - ImprovementManager ⇢ Router: status set
  - Router ⇢ WebServer: XmlFile: response
  - WebServer ⇢ WebApp: XmlFile: response
  - WebApp ⇢ ME: status set

    alt [StillSetting]
    - notFinished=True

    alt [FinishSetting]
    - notFinished=False

alt [NotExistsAtLeastOneImprovement]
- DBMS ⇢ QueryManager: error
- QueryManager ⇢ ImprovementManager: NoImprovementException
- ImprovementManager ⇢ Router: NoImprovementException
- Router ⇢ WebServer: XmlFile: response
- WebServer ⇢ WebApp: XmlFile: response
- WebApp ⇢ ME: NoImprovementErrorMessage