Use Case Diagram of the System

FirstResponse System

«Subsystem» User App
- Mobile Telemetry
- User Alert
- Book Appointment

«include» (Mobile Telemetry ← User Alert)
«extend» (User Alert → Alert Validation)
«extend» (Book Appointment)

«Subsystem» Automobile Alert Module
- Vehicle Telemetry
- AAM Alert
- AAM Diagnostics

«include» (Vehicle Telemetry ← AAM Alert)
«extend» (AAM Alert)
«include» (AAM Alert ← AAM Diagnostics)

«Subsystem» Overseer
- Return to Idle
- Alert Validation

«extend» +fail validation
«extend» +successful validation

System Map
- Add Emergency Location
- Remove Emergency Location
- Update Emergency Locations
- Track Road Condition
- Track Emergency Locations

«extend» +successful validation
«modifies»
«accesses»
«accesses»

System Optimizer
- Find Best-suited Hospital
- Calculate Convenience Score
- Calculate Encumbrance Score
- Calculate Overall Score
- Find Best Donor Hospital

«runs for each hospital»
«include»
«include»
«runs for each hospital»
«accesses»
«accesses»
«extend»
«modifies»

«extend» +successful validation

«Subsystem» Hospital Database
- Hospital Data
  - Location
  - Rooms
  - Personnel
  - Inventory

«modifies» (×3)

«Subsystem» Hospital Access Software
- Add Incoming Patients
- Incoming Requests
- Outgoing Requests
- Incoming Patients
- BloodBank Requests
- Manage Rooms
- Manage Personnel
- Manage Inventory
- Update Database
- Staff Validation
- Return to Login Screen

«modifies»
«extend»
«extend» +successful validation
«extend» +successful validation
«extend» +successful validation
«extend» +successful validation
«extend» +fail validation

Actors:
- User
- User's Vehicle
- Hospital
- Pair App and AAM