location

+ locationId:int

-city:String

- locName:String

+getLocationId:int

+setLocationId:void -getLocName:String

-setLocName:void -getStreet:String -setStreet:void -getCity:String -setCity:void

-getState:String -setState:void

-getZipCode:String

-getLongitude:BigDecimal

-getLatitude:BigDecimal

superpower

-setZipCode:void

-setLongitude:void

-setLatitude:void

+ superpowerId:int

-superpower:String

+getSuperpowerId:int

+setSuperpowerId:void

-getSuperpower:String

-setSuperpower:void

- locDescription:String locName:String -street:String -zipCode:String

#### superhero

- + superherold:int
- + name:String - description:String
- + getSuperherold:int
- +setSuperherold:int
- -getName:String - setName:String
- -getDescription:String -setDescription:String

#### organisation

- + organisationId:int
- + orgName:String
- -orgStreet:String -orgCity:String
- -orgState:String -orgZipCode:String
- -orgContact:String
- + getOrganisationId:int
- +setOrganisationId:void +getOrgName:String
- +getOrgName:void
- -getOrgStreet:String
- -setOrgStreet:void
- -getOrgState:String -setOrgState:void
- -getOrgCity:String
- -setOrgCity:void -getOrgZipCode:String
- -setOrgZipCode:void -getOrgContact:String -setOrgContact:void
- sighting
- +sightingId:int
- +sightingDate:date
- +sightingLocation:Location +sightingSuperhero:Superhero
- + getSightingId:int
- +setSightingId:void
- +getsightingDate:date
- +setSightingDate:void
- +getsightingLocation:Location +setSightingLocation:void
- +getsightingSuperhero:Superhero +setSightingSuperhero:void

DAOs

#### Interface

#### SuperheroDaoImpl

- sql prepared statement
- + addSuperhero(Superhero superhero):void + getSuperhero(int superheroId):superhero
- +removeSuperhero(int superheroId):void
- + editSuperhero(Superhero superhero):superhero
- +getAllSuperheros:List<Superhero> +getAllSuperherosByOrganisation(int organisationId):List<Superhero> +getAllSuperherosByLocation(int

#### OrganisationDaoImpl

#### sql prepared statement

- + addOrganisation(Organisation organisation):void
- + getOrganisation(int organisationId):Organisation + removeOrganisation(int organisationId):void
- + editOrganisation(int organisationId):Organisation +getAllOrganisations:ArrayList<Organisation>
- +getAllOrganisationsBySuperhero(int superherold):List<Organisation>

#### LocationDaoImpl

#### sql prepared statement

- + addLocation(Location location):void
- + getLocation(int locationId):Location + removeLocation(int locationId):void
- + editLocation(int locationId):Location
- +getAllLocations:List<Location> +getAllLocationsSuperhero(int superheroId):List<Location>

# SightingDaoImpl

# sql prepared statement

locationId):List<Superhero>

- +addSighting(Sighting sighting):void
- +getSighting(int sightingId):Sighting +removeSighting(int sightingId):void
- +editSighting(int sightingId):Sighting +getAllSighting:List<Sighting>
- +getAllSighting(LocalDate date):List<Sighting>
- +getAllSightingSuperhero(LocalDate
- date):List<Superhero> +getAllSightingLocation(LocalDate date):List<Location>

# SuperpowerDaoImpl

# sql prepared statement

- +addSuperpower(Superpower superpower):void +getSuperpower( superpowerId):Superpower
- +removeSuperpower( superpowerId):void +editSuperpower( superpowerId):Superpower

# **SERVICES**

# ServiceInterface

# SuperheroServiceLayerImpl

- + addSuperhero( Superhero superhero):void
- + getSuperhero(int superherold):superhero +removeSuperhero(int superherold):void
- + editSuperhero(Superhero superhero):superhero
- +getAllSuperheros:List<Superhero>
- +getAllSuperherosByOrganisation(int organisationId):List<Superhero>
- +getAllSuperherosByLocation(int locationId):List<Superhero>

# OrganisationServiceLayerImpl

- + addOrganisation(Organisation organisation):void
- + getOrganisation(int organisationId):Organisation
- + removeOrganisation(int organisationId):void + editOrganisation(int organisationId):Organisation
- +getAllOrganisations:ArrayList<Organisation> +getAllOrganisationsBySuperhero(int
- superherold):List<Organisation>

# LocationServiceLayerImpl

- + addLocation(Location location):void
- + getLocation(int locationId):Location
- + removeLocation(int locationId):void + editLocation(int locationId):Location
- +getAllLocations:List<Location>
- +getAllLocationsSuperhero(int superherold):List<Location>

# SightingServiceLayerImpl

- +addSighting(Sighting sighting):void +getSighting(int sightingId):Sighting
- +removeSighting(int sightingId):void +editSighting(int sightingId):Sighting
- +getAllSighting:List<Sighting> +getAllSighting(LocalDate date):List<Sighting>
- +getAllSightingSuperhero(LocalDate date):List<Superhero> +getAllSightingLocation(LocalDate
- date):List<Location>

# SuperpowerServiceLayerImpl

- +addSuperpower(Superpower superpower):void
- +getSuperpower( superpowerId):Superpower
- +removeSuperpower( superpowerId):void +editSuperpower( superpowerId):Superpower