

Abstract	<b>ACureObject</b>	Superclasses: ASimulationObject Subclasses: Cure, DefectedCure
• get recovery chance		

Abstract	<b>AHealthyObject</b>	Superclasses: ASimulationObject, IMove Subclasses: HealthyHuman, ImmuneHealthyHuman
• check if object is infected		

Abstract	<b>AInfectedObject</b>	Superclasses: ASimulationObject, IMove Subclasses: InfectedHuman, MutatedInfectedHuman
• get infect chance • check if object is cured		

Abstract	<b>AMap</b>	Superclasses: JPanel Subclasses: Map
• carry out next stage • move objects • get stats		

Abstract	<b>AMedicalObject</b>	Superclasses: ASimulationObject, IMove Subclasses: MedicalHuman, InexperiencedMedicalHuman
• check if cure is successful		

Abstract	Superclasses: ACureObject, AHealthyObject, AInfectedObject, AMedicalObject <b>ASimulationObject</b>	Subclasses:
<ul style="list-style-type: none"> <li>• get x position</li> <li>• get y position</li> <li>• set x position</li> <li>• set y position</li> <li>• check if objects are equal</li> <li>• generate hash code</li> </ul>		

	Superclasses: ACureObject <b>Cure</b> Subclasses:
<ul style="list-style-type: none"> <li>• get recovery chance</li> <li>• get x position</li> <li>• get y position</li> <li>• set x position</li> <li>• set y position</li> </ul>	

	Superclasses: ACureObject <b>DefectedCure</b> Subclasses:
<ul style="list-style-type: none"> <li>• get decreased recovery chance</li> <li>• get x position</li> <li>• get y position</li> <li>• set x position</li> <li>• set y position</li> </ul>	

	Superclasses: JFrame <b>Epidemic</b> Subclasses:
<ul style="list-style-type: none"> <li>• start simulation</li> <li>• save stats</li> <li>• create map</li> </ul>	<ul style="list-style-type: none"> <li>• Statistics</li> <li>• Date</li> <li>• SimpleDateFormat</li> <li>• File</li> <li>• StackFile</li> </ul>

**HealthyHuman**

Superclasses: AHealthyObject

Subclasses:

- check if object is infected
- get move range
- get x position
- get y position
- set x position
- set y position

- RandomGenerator
- Math

**ImmuneHealthyHuman**

Superclasses: AHealthyObject

Subclasses:

- check if object is infected (with decreased chance)
- get move range
- get x position
- get y position
- set x position
- set y position

- RandomGenerator
- Math

Interface

**IMove**

Superclasses:

Subclasses:

- get move range

**InexperiencedMedicalHuman**

Superclasses: AMedicalObject

Subclasses:

- get move range
- check if cure is successful (with decreased chance)
- get x position
- get y position
- set x position
- set y position

- RandomGenerator
- Math

<b>InfectedHuman</b>	Superclasses: AInfectedObject Subclasses:
<ul style="list-style-type: none"> <li>• get infect chance</li> <li>• get move range</li> <li>• get x position</li> <li>• get y position</li> <li>• set x position</li> <li>• set y position</li> <li>• check if object is cured</li> </ul>	<ul style="list-style-type: none"> <li>• RandomGenerator</li> <li>• Math</li> </ul>

Interface	<b>IObjectedFactory</b>	Superclasses: Subclasses: ObjectFactory
<ul style="list-style-type: none"> <li>• create infected object</li> <li>• create healthy object</li> <li>• create cure object</li> <li>• create medical object</li> </ul>		<ul style="list-style-type: none"> <li>• ACureObject</li> <li>• AHealthyObject</li> <li>• AInfectedObject</li> <li>• AMedicalObject</li> </ul>

<b>Map</b>	Superclasses: AMap Subclasses:
<ul style="list-style-type: none"> <li>• carry out next stage</li> <li>• move objects</li> <li>• get stats</li> </ul>	<ul style="list-style-type: none"> <li>• ACureObject</li> <li>• AHealthyObject</li> <li>• AInfectedObject</li> <li>• AMedicalObject</li> </ul>

<b>MedicalHuman</b>	Superclasses: AMedicalHuman Subclasses:
<ul style="list-style-type: none"> <li>• get move range</li> <li>• check if cure is successful</li> <li>• get x position</li> <li>• get y position</li> <li>• set x position</li> <li>• set y position</li> </ul>	<ul style="list-style-type: none"> <li>• Math</li> </ul>

<b>MutatedInfectedHuman</b>	Superclasses: AInfectedObject Subclasses:
<ul style="list-style-type: none"> <li>• get increased infect chance</li> <li>• get increased move range</li> <li>• get x position</li> <li>• get y position</li> <li>• set x position</li> <li>• set y position</li> <li>• check if object is cured</li> </ul>	<ul style="list-style-type: none"> <li>• RandomGenerator</li> <li>• Math</li> </ul>
<b>ObjectFactory</b>	Superclasses: IObjectFactory Subclasses:
<ul style="list-style-type: none"> <li>• create infected humans</li> <li>• create healthy humans</li> <li>• create cure objects</li> <li>• create medical humans</li> </ul>	<ul style="list-style-type: none"> <li>• ACureObject</li> <li>• AHealthyObject</li> <li>• AInfectedObject</li> <li>• AMedicalObject</li> <li>• RandomGenerator</li> <li>• MutatedInfectedHuman</li> <li>• MedicalHuman</li> <li>• InfectedHuman</li> <li>• InexperiencedMedicalHuman</li> <li>• ImmuneHealthyHuman</li> <li>• HealthyHuman</li> <li>• DefectedCure</li> <li>• Cure</li> </ul>
<b>RandomGenerator</b>	Superclasses: Subclasses:
<ul style="list-style-type: none"> <li>• get random position</li> <li>• get random chance</li> <li>• get random move</li> </ul>	<ul style="list-style-type: none"> <li>• Random</li> </ul>

Superclasses:

Subclasses:

**Statistics**

- store statistics
- get string with statistics