

### 0.0.1 Use Case Analysis

<b>Name</b>	<b>User Sign Up</b>
Actors	<i>User</i> , SafeStreets
Entry Conditions	<i>User</i> successfully installed SafeStreets application on the smartphone
Events Flow	<ol style="list-style-type: none"><li>1. <i>User</i> taps on "Sign Up" button</li><li>2. <i>User</i> fills the "email" and "password" fields</li><li>3. <i>User</i> checks the "Accept terms and conditions" checkbox</li><li>4. <i>User</i> taps on "Confirm" button</li><li>5. SafeStreets saves <i>User</i> information</li></ol>
Exit Condition	<i>User</i> successfully registered on SafeStreets
Exceptions	<ol style="list-style-type: none"><li>1. Inserted email already registered for another <i>User</i></li><li>2. Inserted password is not valid</li><li>3. Not all required fields are filled in</li><li>4. "Accept terms and conditions" checkbox is not checked</li><li>5. <i>User</i> is already signed up</li></ol> <p><i>User</i> is invited to try again signing up, reporting which error they have committed.</p>

U<sub>1</sub>

<b>Name</b>	<b>User Login</b>
Actors	<i>User</i> , SafeStreets
Entry Conditions	<i>User</i> successfully installed SafeStreets application on the smartphone and registered on SafeStreets
Events Flow	<ol style="list-style-type: none"> <li>1. <i>User</i> enters "email"</li> <li>2. <i>User</i> enters "password"</li> <li>3. <i>User</i> presses the "Confirm" button</li> <li>4. SafeStreets checks <i>User</i> credentials</li> </ol>
Exit Condition	<i>User</i> is successfully logged in
Exceptions	<ol style="list-style-type: none"> <li>1. Inserted "email" is not valid</li> <li>2. Inserted "password" is not valid</li> </ol> <i>User</i> is asked to try again to log into the system.

U<sub>2</sub>

<b>Name</b>	<b>Municipality Login</b>
Actors	<i>Municipality</i> , SafeStreets
Entry Conditions	<i>Municipality</i> is connected to the <i>Municipality</i> dedicated web site
Events Flow	<ol style="list-style-type: none"> <li>1. <i>Municipality</i> enters "Reference code"</li> <li>2. <i>Municipality</i> enters "password"</li> <li>3. <i>Municipality</i> presses the "Confirm" button</li> <li>4. SafeStreets checks <i>Municipality</i> institutional credentials</li> </ol>
Exit Condition	<i>Municipality</i> is successfully logged into the system
Exceptions	<ol style="list-style-type: none"> <li>1. Inserted "Reference code" is not valid</li> <li>2. Inserted "password" is not valid</li> </ol> <i>Municipality</i> is asked to try again to log into the system.

U<sub>3</sub>

<b>Name</b>	<b>SafeStreets sends <i>User report</i> to <i>Municipality</i></b>
Actors	<i>User</i> , SafeStreets, <i>License plate recognition service</i> , <i>Municipality</i>
Entry Conditions	<i>User</i> successfully logged into SafeStreets and installed SafeStreets application on the smartphone
Events Flow	<ol style="list-style-type: none"><li>1. <i>User</i> takes a picture of the <i>Traffic violation</i></li><li>2. <i>User</i> presses the “Confirm” button</li><li>3. SafeStreets receive <i>User picture</i> and forward it to the <i>License plate recognition service</i></li><li>4. <i>License plate recognition service</i> sends back to SafeStreets a text representing the <i>Recognized license plate</i></li><li>5. <i>User</i> selects a <i>Type of violation</i> and presses the “Send” button</li><li>6. SafeStreets stores the newly generated <i>User report</i> in its own Database</li><li>7. SafeStreets sends <i>Municipality</i> the newly generated <i>User report</i></li></ol>
Exit Condition	SafeStreets correctly collected <i>User report</i>
Exceptions	<ol style="list-style-type: none"><li>1.</li></ol> <p>.</p>

U<sub>4</sub>

<b>Name</b>	<b><i>Municipality answers to a User report</i></b>
<b>Actors</b>	SafeStreets, <i>Municipality</i>
<b>Entry Conditions</b>	<i>Municipality</i> successfully logged into SafeStreets
<b>Events Flow</b>	<ol style="list-style-type: none"> <li>1. <i>Municipality</i> presses “Reports” button</li> <li>2. <i>Municipality</i> select a <i>User report</i> to answer</li> <li>3. <i>Municipality</i> taps “Confirm” or “Discard” button (in the second case selects a reason as well) to generate the <i>Ticket feedback</i></li> <li>4. SafeStreets receives the <i>Ticket feedback</i></li> </ol>
<b>Exit Condition</b>	<i>Municipality</i> correctly answered to the <i>User report</i>
<b>Exceptions</b>	<ol style="list-style-type: none"> <li>1.</li> </ol>

U<sub>5</sub>

<b>Name</b>	<b><i>User visualizes Public statistics</i></b>
<b>Actors</b>	<i>User</i> , SafeStreets
<b>Entry Conditions</b>	<i>User</i> successfully logged into SafeStreets
<b>Events Flow</b>	<ol style="list-style-type: none"> <li>1. <i>User</i> presses “Public statistics” button</li> <li>2. <i>User</i> select a “period of time”, a “<i>Type of violation</i>” and a “specific zone”</li> <li>3. SafeStreets show the <i>User</i> the required statistics</li> </ol>
<b>Exit Condition</b>	<i>User</i> correctly visualizes the required <i>Public statistics</i>
<b>Exceptions</b>	<ol style="list-style-type: none"> <li>1. No value was chosen for the parameters to be set; <i>User</i> is asked to select at least one value for the parameters to be set.</li> </ol>

U<sub>6</sub>

Name	<i>Municipality visualizes Detailed statistics</i>
Actors	<i>Municipality, SafeStreets</i>
Entry Conditions	<i>Municipality</i> successfully logged into SafeStreets
Events Flow	<ol style="list-style-type: none"><li>1. <i>Municipality</i> presses the “Stats” button</li><li>2. <i>Municipality</i> select the parameters</li><li>3. SafeStreets shows <i>Municipality</i> the required statistics</li></ol>
Exit Condition	<i>Municipality</i> correctly visualizes the required <i>Detailed statistics</i>
Exceptions	<ol style="list-style-type: none"><li>1. No value was chosen for the parameters to be set;</li></ol> <p><i>Municipality</i> is asked to select at least one value for the parameters to be set.</p>

U<sub>7</sub>

<b>Name</b>	<b><i>SafeStreets</i> suggests <i>Possible interventions</i> to <i>Municipality</i></b>
Actors	<i>Municipality</i> , SafeStreets
Entry Conditions	<i>Municipality</i> grants SafeStreets access to its own <i>Accidents</i> Database
Events Flow	<ol style="list-style-type: none"> <li>1. A certain number of <i>User report</i> for a particular zone of the city is reached</li> <li>2. SafeStreets identifies the precise area in which a <i>Possible intervention</i> could be carried out</li> <li>3. SafeStreets send to <i>Municipality</i> the <i>Possible intervention</i></li> </ol>
Exit Condition	<i>Municipality</i> correctly receives the suggested <i>Possible intervention</i>
Exceptions	No Exceptions.

U<sub>8</sub>

<b>Name</b>	<b><i>User</i> visualizes his/her contribution to SafeStreets</b>
Actors	<i>User</i> , SafeStreets
Entry Conditions	<i>User</i> successfully logged into SafeStreets
Events Flow	<ol style="list-style-type: none"> <li>1. <i>User</i> taps “My reports” button</li> <li>2. <i>User</i> chooses one of his/her previous <i>User report</i> to check</li> <li>3. <i>User</i> visualizes all the details about that particular <i>User report</i></li> </ol>
Exit Condition	<i>User</i> correctly visualizes the details about the chosen <i>User report</i>
Exceptions	<ol style="list-style-type: none"> <li>1. <i>User</i> has not yet reported any <i>Traffic violation</i>;</li> </ol> <p>A warning is shown and <i>User</i> is sent back to the main page.</p>

U<sub>9</sub>