Scenario 3

Mr. Donini is a police officer who works at the police station of Lecco. Every Wednesday he has the duty of fulfilling a patrol ride with the aims of discovering traffic violations in Lecco. Because of Lecco is a quite big city, it is a bit difficult to be efficient in finding traffic violations, and so he wastes a lot of his time. One day, after a football match with his colleagues, Mr. Del Forte said him that he had installed a fantastic app called SafeStreets that helps authorities in discovering traffic violations. Therefore, Mr. Donini downloaded SafeStreets app and the following Wednesday he tested it. With his surprise, that day he found more traffic violations than the times before. He followed his usual patrol ride, but each times, he received a notification by SafeStreets regarding a traffic violation, he changed course and he went to the position indicated by the app. In fact, SafeStreets app allows an authority to be notified when he is near to a new traffic violation published by the end users. The notification includes the type of traffic violation, a description of it and its position, so Mr. Donini could decide if it was useful changing course or not. If Mr. Donini decided to go to the traffic violation reported by SafeStreets, he was able to communicate it to his colleagues by sending a notification through the app. In this way, he avoided that two police officers went to the same position for a single traffic violation. Moreover, he could see if there were traffic violations, for which he was not notified (maybe because he was a bit far from them) and so he could decide to go there to verify them. In fact, if an authority opens SafeStreets app, there is a list of traffic violations published by the end users again with type of traffic violation, date, time, position and description.

Scenario 4

Mr. Ryan is the new police commissioner of the police station of Milan. Among his duties, he has also to decide in which areas of Milan it is better to control if there are traffic violations and in particular parking violations. At the beginning, he used to maintain the same areas checked by his predecessor, but there were some areas that did not present many traffic violations and so it was a waste of resources. Fortunately, he discovered SafeStreets software. By binding the past data regarding traffic violations in Milan and the new data coming from SafeStreets, the efficiency of his job improved a lot. In fact, through SafeStreets app it is possible to see in which areas there is the highest number of traffic violations, at what time there are many infringements and which are the most common types of violations.

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| Name | Notify other authorities |
| Actor | Authority |
| Entry Condition | 1. Authority wants to go to verify if a traffic violation is true 2. Authority wants to avoid that another authority goes to the same traffic violation 3. The end users published some traffic violations |
| Event Flow | 1. Authority opens SafeStreets app 2. Authority logs in 3. Authority looks for new traffic violations published by the end users 4. Authority finds a traffic violation that it can be better to verify its validity 5. Authority clicks on this traffic violation 6. Authority reads the details 7. Authority decides to go to verify if the traffic violation is true 8. Authority clicks on the button that allow to notify other authorities that he is going to verify this traffic violation |
| Exit Condition | 1. Other authorities receive the notification 2. Only one authority goes to verify the validity of a traffic violation |
| Exceptions | 1. There is a problem of internet connection and it is impossible to send or receive the notification |
| Special Requirements | If an authority decides to go to verify a traffic violation, he has to notify other authorities, otherwise it can happen that two authorities goes to verify the same traffic violation |

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| Name | Be notified for near traffic violations |
| Actor | Authority with the participation of the system |
| Entry Condition | 1. Authority is logged in the app 2. A end user publishes a new traffic violation |
| Event Flow | 1. The system takes the position of all the authorities 2. The system checks which authorities are near the new traffic violation 3. If the authority is near a traffic violation, he receive the notification of a new traffic violation 4. Authority reads the notification 5. Authority opens the notification 6. Authority read the details of the new traffic violation |
| Exit Condition | 1. Authority knows that there is a new traffic violation near him 2. Authority decides if going to verify the new traffic violation |
| Exceptions |  |
| Special Requirements |  |

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| Name | Check traffic violations statistics |
| Actor | Authority |
| Entry Condition | 1. Authority wants to know the statistics regarding traffic violations in a specific area 2. Authority wants to know the statistics regarding traffic violations at a specific time 3. Authority wants to know the statistics regarding the most common type of traffic violations |
| Event Flow | 1. Authority opens SafeStreets app 2. Authority logs in 3. Authority goes to the section of statistics 4. Authority chooses to check the areas with the highest number of traffic violations 5. Authority goes back 6. Authority chooses to check the time with the highest number of traffic violations 7. Authority goes back 8. Authority chooses to check the most common type of traffic violations |
| Exit Condition | 1. Authority knows the statistics regarding traffic violations |
| Exceptions | There are few data regarding traffic violations so the system is not able to calculate reliable statistics |
| Special Requirements | There must be a certain number of traffic violation in order to have a reliable statistics |