**RASD DOCUMENT – v0.1**

12/10/19

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**1.INTRODUCTION  
1.A Purpose**This is the Goals of the SafeStreets system:  
- G1: Give information about violations, and identify potentially unsafe areas  
- G2: Accept notification about the violations  
- G3: Suggest possible interventions  
- G4: Allows the Municipality to retrieve submitted violations

**2.OVERALL DESCRIPTION  
2.A**The SafeStreets system is designed as a ***Progressive Web App***, so this will <https://developers.google.com/web/progressive>  
web-apps.

The world in which the SafeStreets system will work is modelled as:

Violations storage

Plate Recognition

License Plate Storage

User Storage

Retrive violations  
 from SafeStreet

Traffic Violations

Notify violations   
by User

Municipality

Access violations   
by Municipality

Users

User Registration

Suggested   
intervention

Data analysis

The notify violations is a shared phenomena that is triggered by the User (that has to be registered in the system) or it can be retrieved by the services offered by the municipality , the violation includes the date, the time, one or more pictures with the main picture contains the License Plate that will be recognized by the system or inserted by the user, the position that can insert by the user or retrieved by the Location system of the device, the type of the violation and the Users that has notify the violation. The violation accessed by the service offered by the Municipality are verified, while the violations notify by the users need to be verified.

The SafeStreet system has also to perform Data Analysis on the streets and vehicle by highlighting the highest frequency violations, that can be useful for the User and the Municipality, that will have different level of granularity: so the user will see the aggregate Data( for example he can see the street with the highest violations), while the Municipality can see also who committed the violations.

Another Shared Phenomena is triggered by the Data Analysis that by looking at the violation frequency can suggest the road that need some intervention.

**CLASS DIAGRAM**

**2.B Product functions**The requirements of the SafeStreet system are:  
- R1: Store the notifications about the violation  
- R2: User needs to be registered to notify a violation  
- R3: Different actors have different levels of visibility  
- R4: The system accept the violations only of his competence area  
- R5: Allows to retrieve the violations registered by the Municipality  
- R6: The system needs to avoid the manipulation of the violations

**2.D Assumptions, dependencies and constraints**The domain assumptions of the SafeStreet system are:  
- D1: Trust the notification made by the user (?)  
- D2: