

Project Idea Name

Tolling smartly and Safely (ToSS)

Team members

◦ Team Leader: Divya Aswani

Team Members:

1. Sapna Naik
2. Vishal Suryawanshi
3. Aniket Pisal
4. Ashitosh Davari
5. Vinayak Chautre

Idea Details

Ministry Category: Ministry of Road
Transport and Highways

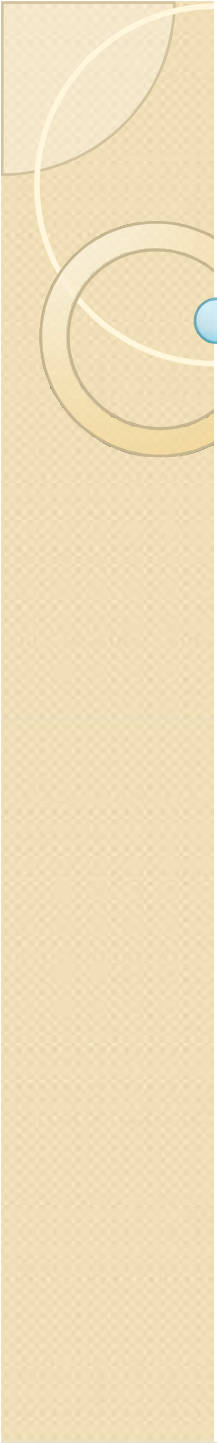
Problem Statement: Online toll payment
system

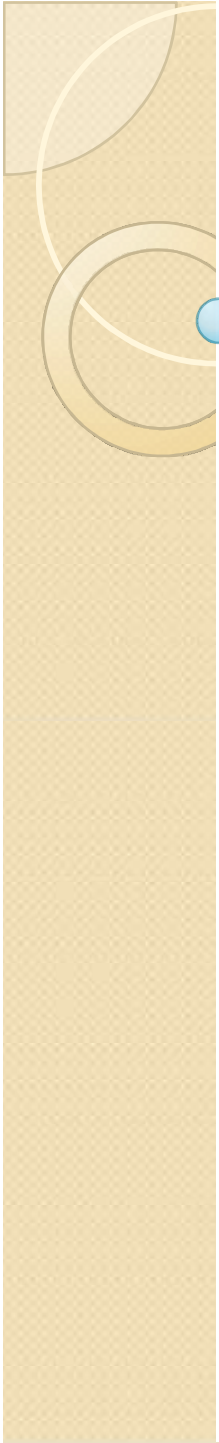
Problem code: #RH3

Proposed Solution

Tolling Smartly and Safely (ToSS)

- The toll payment is done with the traditional method but also it will include the weight of vehicle so to ensure which are overloaded for the safety purpose.
- As India is going cashless here payment will also be done cashless and by reducing the human efforts. Here all the vehicles will be registered online along with their bank information and a barcode will be generated individually for each registered vehicle.

- 
- The owner will have to place this generated barcode sticker on the vehicle's windshield or registration plate. The bank details of the owner will be encoded in this barcode after verification. On the other side, a barcode scanner has to be placed on the toll booth.
 - When the vehicle passes through this toll booth the barcode on the vehicle will be scanned through this scanner. Thus the vehicle does not have to wait for the payment.

- 
- The respected amount will be automatically deducted from the owners account. The electronic receipt of the payment will be generated and will be mailed to the user and also confirmation message will be sent to the registered cell phone.
 - Thus the transaction time and waiting period on the toll booths can be completely reduced avoiding traffic jams.

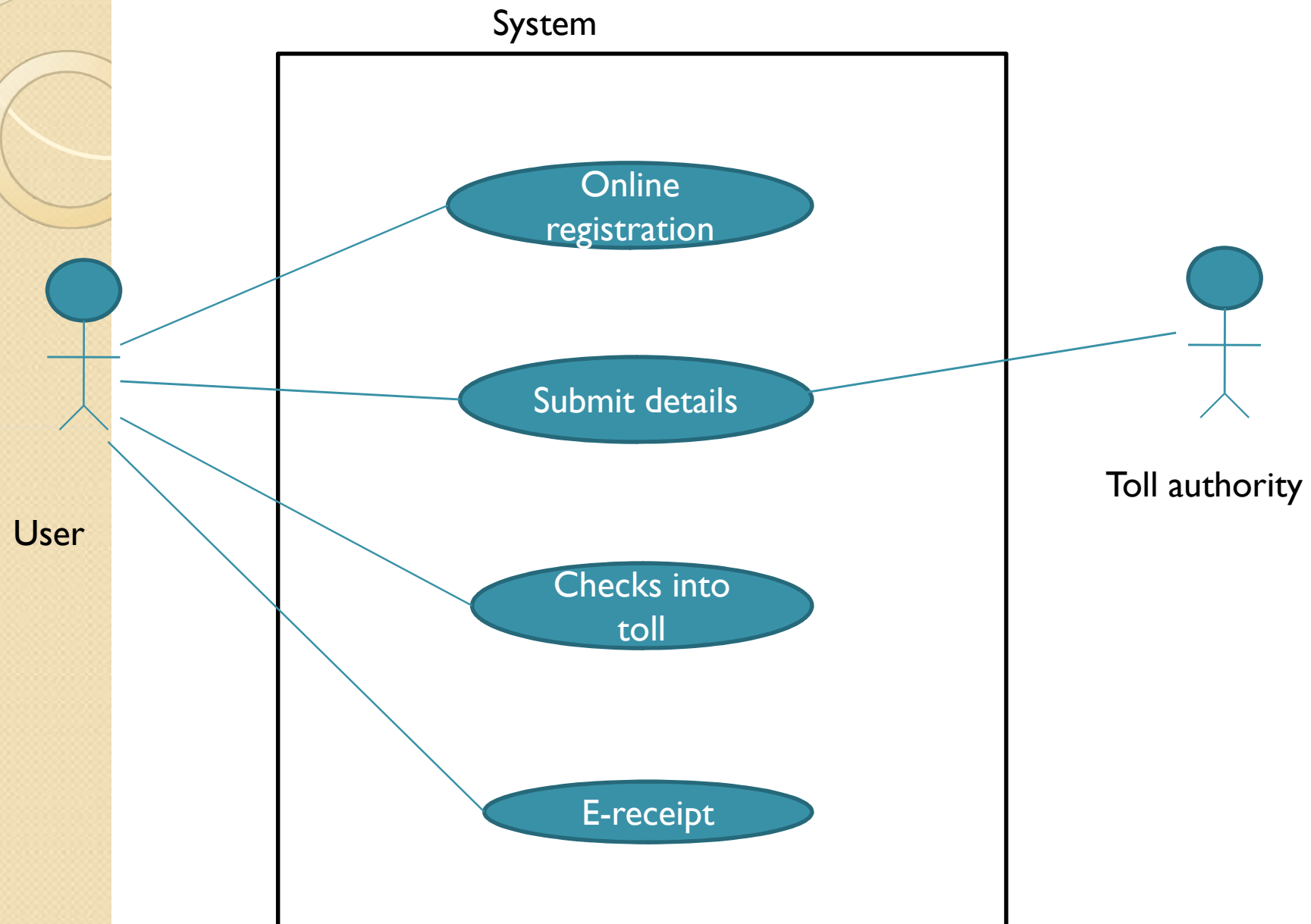
Working

- We are providing here two interfaces one for the user i.e. owner of the vehicle and other for the person who is in charge of the toll booth.
- Firstly the owner has to register his/her vehicle to the RTO department.
- The owner has to fill the registration form that includes personal details, bank details and vehicle details.

Working

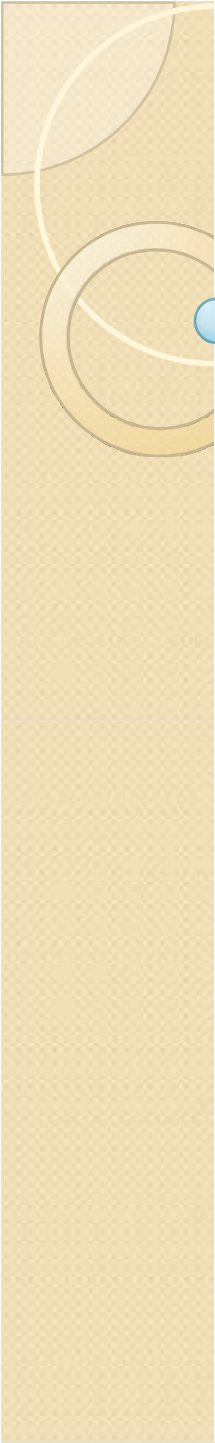
- After the form is successfully submitted, a barcode sticker will be generated that the owner should place on the car's windshield such that it is detectable to the scanner and the respected toll amount will automatically get deducted.
- If there is an insufficient amount an error message will get displayed on the interface which is provided to the person who is in charge at the toll booth.
- In this case user has to make payment using cash.

Use case



Dependencies

1. Internet connection
2. Barcode sticker
3. Weight sensor
4. Barcode scanner



Thank You...