# Driftr

# Security Analysis

**Rose-Hulman Institute of Technology – CSSE 333-01**

Davis Nygren

Jacob Ryan

Daniel Lehman

Table of Contents

[Driftr 1](#_Toc409623797)

[Security Analysis 1](#_Toc409623798)

[Version Information 2](#_Toc409623799)

[1 Privacy Analysis 3](#_Toc409623800)

[2 Security Analysis 3](#_Toc409623801)

[3 Entity Integrity Analysis 3](#_Toc409623802)

[4 Referential Integrity Analysis 3](#_Toc409623803)

[5 Business Rule Integrity Analysis 4](#_Toc409623804)

# Version Information

|  |  |  |
| --- | --- | --- |
| Version | Date | Comments |
| 1.0 | 1/21/15 | Initial Draft |

# 1 Privacy Analysis

For our database all users will be able to view each other’s public information including name and vehicle make, model, and year. Users who are friends will be able to additionally see each other’s email. Users will also be able to see the location, time, theme, and description of events. Event owner will be able to view event participants. Once the event time passes all users will be able to view all participants in an event, as well as their placement.

# 2 Security Analysis

Only event owners will be able to edit event location, time, theme, description, and remove users from the participant list. Event owners will not be able to modify entries or add entries to the participant list. Events will have a Boolean field indicator whether the local police department decided to “participate” in the event or not. Users will be able to look up locations and see how “hot” they are. Location “heat” is determined by the number of events at that location that have been busted.

During user registration, under vehicle, if the user registering seems suspicious in anyway such as their vehicle being a black and/or white Crown Victoria or black and/or white Dodge Charger for example.

# 3 Entity Integrity Analysis

1. For the User table,
2. For the Vehicle table,
3. For the Event table,
4. For the Event\_Participant table,
5. For the Location table,
6. For the Friend table,
7. For the Preferences table,

# 4 Referential Integrity Analysis

All update operations will cascade, unless the operation would create a null pointer, in which case the operation will be rejected. This behavior was chosen for a variety of reasons. If a location name is changed, it should be updated in all event at that location. If a user changes their name, it should be updated in the event they own or participate in as well.

All delete operations will reject. All records will be kept forever, unless the secret server warehouse has been compromised by a police raid, in which case all user names will simply be replaced with “Sriram Mohan.”

# 5 Business Rule Integrity Analysis

After the event time passes, it is the responsibility of the event owner to update positions for each of the event participants and if the event was busted or not.