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| Rose-Hulman Institute of Technology- CSSE 333 |
| Rate My World Leader |
| Security and data integrity analysis |

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Table of Contents

**Table of Contents1**

**1 Executive Summary2**

**2 Analysis 2**

2.1 Privacy Analysis2

2.2 Security Analysis2

2.3 Entity Integrity Analysis3

2.4 Referential Integrity Analysis3

2.5 Business Rule Integrity Analysis3

**3 References3**

**4 Appendix3**

**5 Index3**

**6 Glossary3**

1. **Executive Summary**

This document’s purpose is to describe the security and data integrity through analysis.

1. **Analysis**
   1. Privacy Analysis

In our database, the user emails and passwords should only be visible to an administrator, and not to other users. There is not any other private information stored, because all other information should be visible to all users.

* 1. Security Analysis

Regular users should not be able to add or edit Leaders, because they may compromise the data integrity by entering false data, thus invalidating any reviews and/or ratings. Non-Administrators should not have access to the emails or passwords of other users as stated in the Privacy Analysis, because this would compromise user privacy. Users should only be able to rate any leader once, and accounts would need to have a validated email to prevent users from making multiple accounts to rate a leader multiple times, as this would compromise data integrity and essentially invalidate the entire system.

* 1. Entity Integrity Analysis

Entity integrity will include normal key constraints on keys declared in previous documentation. In addition to standard constraints, the startdate field in the tables Leads and LeaderMemberOfParty will need to be in will be required to be an earlier date than enddate field in both tables.

* 1. Referential Integrity Analysis

This database will include normal foreign key constraints. In addition, the timeframe of an entry in the “Leads” table may not overlap with the same timeframe of another entry in the table for the same leader. This same time constraint applies to entries in the LeaderMemberOfParty table, with respect to other entries in the LeaderMemberOfParty.

* 1. Business Rule Integrity Analysis

The only business rule integrity that needs to be enforced is leaders. Since they are managed by the administrators, the administrators would have to periodically add leaders to the system and change the status of other leaders as time goes on. Outside of that there is not any other business rule constraints, since that is the only thing the database is being used for.

1. **References**

"RateMyProfessors.com – Find and Rate Your Professor or Campus." Rate My Professors. Web. 3 Apr. 2015. <http://www.ratemyprofessors.com/>.

1. **Appendix**

N/A at this time

1. **Index**

N/A at this time

1. **Glossary**

Entity Relationship (ER) Diagram ­ A diagram that represents the relationships between the various entities in the database in an abstract and visual manner