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|  | **CSCI/ISAT B320**  **Database Management Systems I**  **Fall 2023**  **Project Contributions by Roddey Sims and Shaun Poole** |

**Purpose:**

Document the contributions of each team member over the course of the project.

**Members and their Contact Information**

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| --- | --- | --- |
| **Member** | **Email** | **Text** |
| Roddey Sims | Rdsims@email.uscb.edu | (843) 338-2121 |
| Shaun Poole | scpoole@email.sc.edu | (843)-816-2068 |

**Overall**

Relative Contribution of each member over the course of the entire project

|  |  |  |
| --- | --- | --- |
| **Member** | **Contribution** | **Total Hours** |
| Roddey Sims | 50.7 % | 45 |
| Shaun Poole | 49.3 % | 44 |

**Data Design (i.e., ERD Creation & Revisions)**

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| --- | --- | --- | --- |
| **Member** | **Contribution** | **Hours** | **Components** |
| Roddey Sims | 40 % | 3 | Attribute Identification, 1NF, 2NF, 3NF, ERD design, |
| Shaun Poole | 60 % | 4 | Attribute Identification, 1NF, 2NF, 3NF, ERD design. Document creation, additional data clarifications, continual ERD revisions. |

**Create & Populate Script: Entity Creation (i.e., Table, View, Constraint, etc.)**

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| **Member** | **Contribution** | **Hours** | **Components** |
| Roddey Sims | 50 % | 16 | Created all the tables with all the constraints and references needed. Generated needed values |
| Shaun Poole | 50 % | 16 | updated tables that needed more data. Adjusted constraints to reflect standards. Added additional constraints for stored data. |

**Create & Populate Script: Entity Population (i.e., Table Inserts)**

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| --- | --- | --- | --- |
| **Member** | **Contribution** | **Hours** | **Components** |
| Roddey Sims | 50 % | 18 | Inserted data for tables that involved auto generated columns and linked them. Fixed and updated some of the column name issues. Helped parse up the student schedules |
| Shaun Poole | 50 % | 16 | Parsed up the student schedules, catalog, etc. Updated population script with revised data to meet constraints. |

**Query Script: Query Development**

Note: include here any Views created to support your queries

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| --- | --- | --- | --- |
| **Member** | **Contribution** | **Hours** | **Components** |
| Roddey Sims | 50 % | 5 | Focused on Queries involving the instructors |
| Shaun Poole | 50 % | 5 | Focused on Queries involving the Students and GPAs |

**Presentation Preparation**

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| --- | --- | --- | --- |
| **Member** | **Contribution** | **Hours** | **Components** |
| Roddey Sims | 50 % | 3 | Made the presentation timeline.  Practiced presenting together |
| Shaun Poole | 50 % | 3 | Presentation Mockup and made the PowerPoint.  Practiced presenting together |

**Data-design Assumptions & Data Clarifications**

* **Assumptions made**
  + **The instructor for a course offering will not change mid-way through the course.**
  + **All students passed classes with C’s or higher.**
    - **This also assumes all classes taken were graded via Standard Letter.**
  + **Assumes that Students would not transfer out of college mid-semester**
  + **The section number would describe the course in some manner. Which tells if the course is on the web, in a different campus, even tell what level of the course it is.**

**Naming Conventions/Standards**

* **Tables**
  + **All table names are plural except for Course\_Catalog.**
  + **First Letters need to be capitalized.**
  + **Names are fully spelled out without abbreviation.**
  + **Using \_ to separate multiple words.**
* **Columns**
  + **Every table has an identity column except for requisites and Department\_Instructors.**
  + **All field names are not plural unless needed. Example - (MaxRepeatCredits).**
  + **Names are made to communicate a value without much abbreviation.**
  + **The data type is specified by the name of the column.**
  + **No prefixes are in fields**
* **Indexes**
  + **Naming Convention remains as standard.**
  + **No Prefixes**
* **Constraints**
  + **Primary Keys reflect names of the tables.**
    - **PK is used for the prefix**
  + **Foreign Keys named to describe relationships between tables.**
    - **e.g. FK\_Subjects\_Departments; Child\_Parent**
    - **Minimal abbreviation, often cut down to last word of table. (“Course\_Offerings/Catalog” to “Offerings” and “Catalog”)**
    - **FK is used as the prefix.**
* **Views**
  + **Prefixes are allowed for this as it is a helpful reminder to separate a view from a table.**
  + **Name the view depending on what tables you are joining.**
* **Stored Procedures**
  + **All procedures should be ordered by the table they perform the database operation on.**
* **Functions**
  + **Prefixes are allowed.**
  + **Functions should be named as a verb.**
* **Triggers**
  + **Prefixes are allowed to distinguish triggers.**
  + **Abbreviations are allowed for triggers with multiple operations.**

**Bibliography**

* **Data Design**
  + **Dr. Erdei helped with our design.**
    - **He helped us realize the scope of the project and we began to change the direction of the data.**
  + **Roddey’s brother helped with our design.**
    - **He helped us by giving us ideas for splitting up the data so it’s easily readable and the idea of using Enums.**
  + **Initial designs were reviewed by Jacob Mitchell, Tyler Hlusek, and Victor Lin.**
* **Create & Populate Script: Entity Creation (i.e., Table, View, Constraint, etc.)**
  + **Used the apdb\_create\_populate\_v2022.sql to base off the table creations.**
* **Create & Populate Script: Entity Population (i.e., Table Inserts)**
  + **For generating the inserts, we used convertCSV.** 
    - [**https://www.convertcsv.com**](https://www.convertcsv.com/)
  + **Parsing out the Prerequistes, Roddey used a python script that was created by Eisa Chaunhary. He created this script and then allowed anyone in the ACM discord to use it.**
  + **Parsing Students, Roddey used Macaroo.**
    - [**https://www.mockaroo.com**](https://www.mockaroo.com/)
* **Query Script: Query Development**
  + **Ian Bickford helped with the instructor query/view.**
    - **He gave Roddey an idea on how to get the correct calculations for the number of classes a professor has taught and the average grade.**
  + **Houston Henderson with initial GPA calculation and CASE idea**
    - **Recommended the use of a CASE function for finding the academic level.**
    - **Gave Shaun a GPA formula for initial select statement, this was slightly adjusted when transferring it to the function, but the formula essentially stayed the same.**