|  |  |
| --- | --- |
| **Name:** *Gary Ward* | **Date:** *04-26-18* |
| **Course:** IT 410 – Database Design | **Professor:** Mr. Michael Knupp |
| **Assignment:** *IT 410 Final Project – Final List of Business Rules* | |

**Abstract:**

*This Final Project document contains a final list of business rules used to govern the entity relationships in my RC Charter 2 database.*

**Responses:**

Customers (1:M) – CharterFlights (1:1)

1. A customer can book one or more flights, but they may not book any.
2. A flight must be booked by one and only one customer.

CharterFlights (1:M) – CharterBills (1:1)

1. A charter flight can generate one or more bills, but it may not generate any.
2. A bill is generated by one and only one charter flight.

Customers (1:M) – CharterBills (1:1)

1. A customer can be charged with one or more bills, but they may not be charged with any.
2. A bill is charged to one and only one customer.

Customers (1:M) – Payments (1:1)

1. A customer can make one or more payments, but they may not make any.
2. A payment can be made by one and only one customer.

CharterBills (1:M) – CBill\_PmntStatement (1:1)

1. A charter bill generates one or more payment statements, but it may not generate any.
2. A payment statement can be generated by one and only one charter flight.

CBill\_PmntStatement (1:M) – Payments (1:1)

1. A payment statement generates one or more payments, bit it might not generate any.
2. A payment is generated by one and only one payment statement.

Payments (1:M) – Pmnt\_RevStatement (1:1)

1. A payment generates one or more revenue statements, but it might not generate any.
2. A revenue statement is generated by one and only one payment.

Pmnt\_RevStatement (1:M) – Revenue (1:1)

1. A revenue statement generates one or more revenue checks, but it might not generate any.
2. A revenue check is generated by one and only one revenue statement.

CharterFlights (1:1) – PilotRecords (1:1)

1. A charter flight produces one and only one pilot record.
2. A pilot record is produced by one and only one charter flight.

PilotRecord (1:1) – CharterSummary (1:M)

1. A pilot record produces one and only one pilot summary.
2. A pilot summary is produced from at least one pilot record, but may be produced from many.

Aircraft (1:M) – CharterFlights (1:1)

1. An aircraft is assigned to at least one charter flight, but it might not be assigned to any.
2. A charter flight is assigned to one and only one aircraft.

Aircraft (1:1) – AircraftModels (1:M)

1. An aircraft belongs on and only one model number.
2. An aircraft model number is assigned to at least one aircraft, but it might not be assigned to any.

Employees (1:M) – CrewManifest (1:1)

1. An employee is assigned to at least one CrewManifest, but they might not be assigned to any.
2. A crew manifest is assigned to one and only one employee.

CrewManifest (1:1) – CharterFlights (1:M)

1. A crew manifest is assigned to one and only one flight.
2. A charter flight is assigned to at least one Crew Manifest, but it might not be assigned to any.

Employees (1:M) – PilotManifest (1:M)

1. At least one employee must be a pilot, but there might not be any.
2. At least one pilot must be an employee, but there could be many.

Employees (1:M) – EmpLIcensesAndCerts (1:1)

1. An employee may have at least one license or certification, but they might not have any.
2. A license or certification belongs to one and only one employee.

EmpLicensesAndCerts (1:1) – LicensesAndCerts (1:M)

1. An employee license or certification applies to one and only one license and certification description.
2. A license or certification description applies to at least one employee license or certification, but it might not apply to any.

TestResults (1:1) – EmployeeTests (1:M)

1. Test results are applied to one and only one employee test.
2. An employee test may apply to at least one test result, but it might not apply to any.

TestResults (1:1) – Employees (1:M)

1. Test results apply to one and only one employee.
2. An employee may have at least one test result, but they might not have any.

CharterFlights (1:1) – DestinationInfo (1:1)

1. A charter flight generates one and only one destination information record.
2. A destination information record may applies to at least one charter flight.

|  |
| --- |
| **Statement of Authenticity**  By putting my name below, I certify the work submitted in this document is my original work. Although collaboration with other individuals may have taken place, the final work is my own and submitted in full accordance with the Husson University Academic Integrity policy. |
| **Name:** *Gary Ward* |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Grade** | **Qualities Demonstrated by the Assignment Submission** | **Grade Assigned** |
| **Content (70%)**  **Measures the quality of the content in the assignment** | A+ 🡺 100 | The content demonstrates exceptional understanding of all relevant subject matter and its inter-relationships. All major relevant issues are thoroughly covered, and all content is very focused and on-topic. There is no known way to improve the content, and there are absolutely no technical or coverage errors present. |  |
| A 🡺 96 | The content demonstrates exceptional understanding of all relevant subject matter and its inter-relationships. All major relevant issues are thoroughly covered, and all content is very focused and on-topic. At most one insignificant technical or coverage error may be present |
| A- 🡺 92 | The content demonstrates deep understanding of all relevant subject matter and its inter-relationships. All major relevant issues are covered, and all content is on-topic. |
| B+ 🡺 88 | The content demonstrates understanding of all relevant subject matter and its inter-relationships. Almost all major relevant issues are covered, and the content is at least reasonably on-topic. |
| B 🡺 85 | The content demonstrates understanding of most relevant subject matter and its inter-relationships. Almost all major relevant issues are covered, and all content is at least reasonably on-topic. |
| B- 🡺 82 | The content demonstrates moderate understanding of much relevant subject matter and its inter-relationships. There is reasonable coverage of major relevant issues, and the content is at least reasonably on-topic. |
| C+ 🡺 78 | The content demonstrates some understanding of relevant subject matter and its inter-relationships. Some major relevant issues are covered, and at least some content is on-topic. |
| C 🡺 75 | The content demonstrates understanding of a small portion of the relevant subject matter and its inter-relationships. Some major relevant issues are covered, and at least a small portion of the content is on-topic. |
| C- 🡺 72 | The content demonstrates little understanding of and insight into the relevant subject matter and its inter-relationships. A small portion of the major relevant issues are covered. The focus of the content may be off topic or on insubstantial or secondary topics |
| D 🡺 67 | The content demonstrates almost no understanding of or insight into the relevant subject matter and its inter-relationships. Almost none of the major relevant issues are covered, and the content may be almost entirely off-topic. |
| F 🡺 0 | The content demonstrates no understanding of or insight into the relevant subject matter and its inter-relationships. No major relevant issues are covered, and the content is entirely off-topic. |
| **Exposition (30%)**  **Measures how well the content is expressed** | A+ 🡺 100 | The presentation of all ideas and designs is exceptionally clear and persuasive; the entire submission is exceptionally organized. There is no known way to improve the clarity or organization of the submission. |  |
| A 🡺 96 | The presentation of all ideas and designs is exceptionally clear and persuasive; the entire submission is exceptionally organized. There may be at most one insignificant way to improve the clarity or organization of the submission. |
| A- 🡺 92 | The presentation of all ideas and designs is very clear and persuasive; the entire submission is very organized. |
| B+ 🡺 88 | The presentation of all ideas and designs is clear and persuasive; the entire submission is organized. |
| B 🡺 85 | The presentation of most ideas and designs is clear and persuasive; most of the submission is organized. |
| B- 🡺 82 | The presentation of most ideas and designs is generally clear; most of the submission is reasonably organized. |
| C+ 🡺 78 | Some parts of the submission are hard to understand; some parts are disorganized. |
| C 🡺 75 | About half of the submission is hard to understand; about half is disorganized. |
| C- 🡺 72 | Most parts of the submission are hard to understand; most parts are disorganized. |
| D 🡺 67 | Almost all of the submission is hard to understand and disorganized. |
| F 🡺 0 | The entire submission is hard to understand and disorganized. |
|  | FINAL GRADE | |  |