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Module 9.1 Assignment

* **Milestone #1** – Find your group area and introduce yourself. Include when and how you will be available during the week. Read through the case studies and, as a group, select one for your final project. Create a list of business rules for your case study, including any assumptions you make. Using those business rules, create an initial ERD to satisfy those rules. The deliverable this week is a Word document that has your group name at the top, members of the team, which case study was selected, business rules, and an initial ERD.

Checklist:

* ~~Find Group Area~~
* ~~Introductions~~
* ~~Scheduling~~
* ~~Select Case Study~~
* Create Business Rules
* Initial ERD
* Group Name

Group Area: Discord direct group

Case Study:

Blythe Timmerson and Jim Ford, both outdoor enthusiasts, opened Outland Adventures as a sideline to their fulltime careers. They hoped to cater to other people who enjoyed hiking and camping in far off places. They thought that if they could arrange guided trips, provide the equipment needed, and develop the right advertising, then Outland Adventures might just succeed. When it became apparent that they had identified a much needed market, they both quit their current jobs and devoted their full time and energies into their joint venture. When they started running Outland Adventures, they hired two guides; John ‘Mac’ MacNell, and D.B. ‘Duke’ Marland. These two would be in charge of organizing and planning the trips, including investigating airfares, visa requirements, and inoculations.. Blythe and Jim also hired Anita Gallegos to take over the marketing aspect of the organization. Dimitrios Stravopolous is responsible for ordering supplies for the trips as well as keeping the equipment inventory up to date. Customers may either rent or buy their equipment outright. Mei Wong has just been hired to develop an ecommerce site where potential customers can find out information about Outland Adventures, check on trip schedules, and purchase hiking and camping equipment. While Blythe and Jim have been taking care of the administrative and office operations, they have recently started wondering if it was time to optimize the organization. Some of the questions to be answered are: Do enough customers buy equipment to keep equipment sales? So far, they have conducted treks in Africa, Asia, and Southern Europe. Is there anyone of those locations that has a downward trend in bookings? They are a little concerned about the age of some of the inventory. Are there inventory items that are over five years old?

Proposed Business Rules for Outland Adventures Case:  
  
 **1. Customer Management Rules:**

· Customers must provide contact information to book a trip or purchase equipment.

· Customers can either rent or purchase equipment.

· Customers must complete inoculations and any health checks needed for travel.

**2. Trip Management Rules:**

· Each trip must be assigned at least one guide.

· Each trip must have defined start and end dates, a destination, and a predefined cost.

· The system must track the status of visa requirements and inoculations for each trip.

**3. Guide Management Rules:**

· Guides must have valid certifications, inoculations, and qualifications to lead a trip.

· Guides’ schedules must be managed to avoid conflicts between trips.

**4. Inventory Management Rules:**

· All equipment must have a purchase date and a status indicating whether it is available for rent or sale.

· Equipment must be inspected regularly and the condition must be recorded in the database.

· Equipment older than five years must be flagged for review and potential replacement.

**5. Sales and Rental Rules:**

· Equipment sales and rentals must be tracked with a unique transaction ID.

· Sales and rental records must include customer details, equipment details, dates, and costs.

**6. E-commerce Website Rules:**

· The e-commerce site must provide up-to-date information about trips and available equipment.

· The site must allow users to check trip schedules and book trips or purchase equipment online.

**7. Marketing Management Rules:**

· Marketing campaigns must be linked to an increase or decrease in trip bookings and equipment sales.

· Marketing effectiveness must be evaluated to determine the return on investment.

**8. Destination Analysis Rules:**

· The database must record the number of bookings for each destination.

· Reports must be generated to identify trends in bookings per location.

**9. Financial Analysis Rules:**

· The database must track all income from trips and equipment sales/rentals.

· Regular financial reports must be generated to assess the profitability of selling equipment and trip bookings.

**10. Data Integrity and Security Rules:**

· The database must enforce referential integrity to prevent orphan records.

· Sensitive customer data must be encrypted and access to it should be restricted based on user roles.