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ITS 465-MC01

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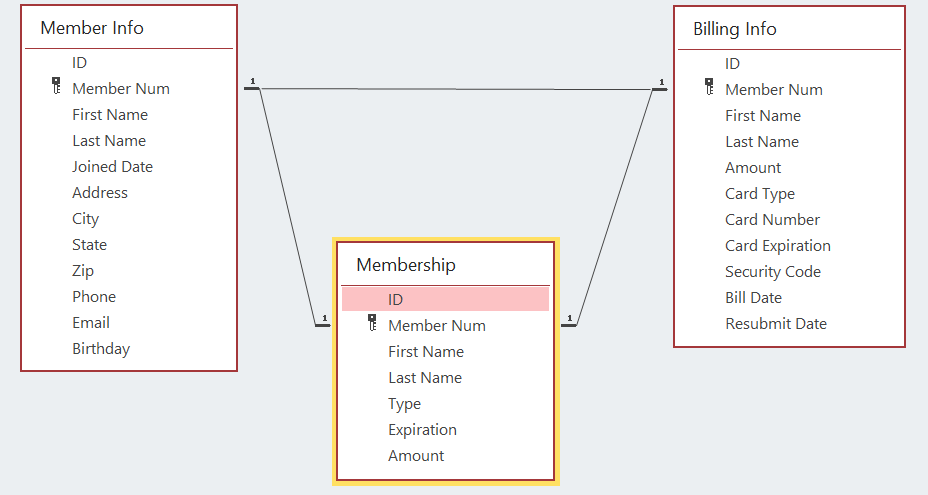
Requirements Analysis – Twin Peak Billing Software

1. Analyze Functional Requirements
   1. Member Info Table
      1. This table should include the following: Member Num, First Name, Last Name, Joined Date, Address, City, State, Zip, Phone Number, Email, and Birthday. This table needs to include all the basic information about the members for multiple reasons: as means for emergencies, so that we can contact them regarding their membership, and if they miss too many payments and must be sent to collections. The collections agency will require a minimum amount of information to proceed successfully with the collection of the members’ account.
   2. Membership Table
      1. The membership table as well as all other tables will include the basic primary key, which is the Member Num, as well as the member’s first and last name. On top of this universal information, the membership table must include the type of membership, the expiration date for the membership if it is paid in full, and the associated billing amount for the membership.
   3. Billing Info Table
      1. The Billing Info table will contain all information regarding billing the member for their monthly dues. It needs to include the Member Num, First and Last Name, and the Amount. Also, this table will include information on the member’s credit or debit card that will be used to bill the member. Requirements for this information are: Card Type, Card Number (16 digits), Expiration Date, and Security Code. Lastly, the table will list the billing date for the membership, which will always be on the first of the month for Twin Peak Billing Software.
   4. New Member Form
      1. This form will be the first screen that will display as the software opens. The new member tab will have three separate tabs. The employee will first enter all information pertaining to the Member Info table. After that is finished, the employee will select the second tab, Membership, and enter all information on the new member’s membership. Lastly, the employee will select the next tab, Billing Info, and enter the new member’s billing info for the membership. This form will replace the manual entry of information into the tables which will prevent errors in information entered or possible destruction of information already in the tables.
2. Traceability
   1. Updates made to any of the above-mentioned tables will require additions or deletions to the new member form. On top of this, queries and reports may need to be redesigned to align with the changes made to the tables. Tracing requirements for this system are important to ensure that the final product is producing the right reports for our accountant to properly control the billing aspect of the system and for our employees in keeping up with membership information regarding expirations, upgrades, etc.
3. Prioritize Requirements
   1. The first thing that must be completed with Twin Peak’s database are the member tables. During this transition, all new members are being tracked on paper until the database is finished and in use by the gym it is being designed for. Once the database is complete, the employees of the gym will practice using the system by entering the new members that were enrolled during the transition phase. The queries needed for the owners, employees, and accountant must next be constructed to give them reports based on the business requirement that is being completed. For example, the accountant needs a complete report of all members that are due to be billed, what their banking information is, and how much the members need to be charged. Another example would be an expiration report for employees, this report will show all members who are enrolled in a “paid-in-full” membership. This means that the member paid up front in cash for the membership and does not get billed monthly. Upon expiration, it is the job of the employee to reach out to the member and offer renewal options. For the owners, a daily sales report is crucial to understanding the business and what needs improvement. If the owners were to check this report daily, they would be able to notice the productivity of their employees and assess what training needs to be completed for daily, weekly, and monthly sales goals to be met.
4. Proposed Timeline
   1. February 22, Problem Analysis Complete
   2. February 28, Tables created and linked with keys
   3. March 4, “New Member” form complete
   4. March 8, Requirements Analysis Complete
   5. March 12, all forms complete
   6. March 19, all queries and reports complete
   7. March 25, Decision Analysis Complete
   8. March 29, Final Design Complete
   9. April 12, System and Database Testing Complete
   10. April 18, Implementation and Training Complete, Operations and Support Complete
   11. April 21, Final Report Complete

**Context Diagram**



**Key-Based Diagram**

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