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| Business Template  **Subject areas** |
| **Logo / Image** |

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* Business Description
* The Mountaineering Club is a dedicated organization that brings together outdoor enthusiasts with a passion for mountain climbing and exploration. The club organizes a variety of climbing expeditions to different mountains around the world, providing its members with opportunities to challenge themselves, develop their climbing skills, and experience the beauty of nature in mountainous regions
* Business background
* Founded several decades ago, the Mountaineering Club has grown steadily in both size and reputation. It boasts a diverse membership base, ranging from novice climbers to seasoned experts, all sharing a common love for the great outdoors and the thrill of ascending peaks. Over the years, the club has faced challenges in efficiently managing climbing expedition data, coordinating resources, and ensuring the safety and satisfaction of its members
* Problems. Current Situation
* The Mountaineering Club currently relies on manual record-keeping and paper-based systems to manage climbing expedition details. This approach has limitations, including the risk of data loss, time-consuming administrative tasks, and difficulties in coordinating various aspects of expeditions. Additionally, it hinders the club's ability to provide members with timely information about upcoming climbs, available equipment, and qualified guides.
* the Benefits of implementing a database. Project Vision
* The implementation of a dedicated database system is envisioned to revolutionize the way the Mountaineering Club manages its operations. This database will streamline data collection, improve data accuracy, enhance communication with members, and provide valuable insights into climbing activities. The key benefits include:
* Efficient Management: Streamline the tracking of climbing expeditions, climber profiles, equipment inventory, and guide assignments.
* Improved Member Experience: Provide members with real-time information about upcoming climbs, availability of equipment, and safety guidelines.
* Data-Driven Insights: Analyze historical climb data to make informed decisions about expedition planning, resource allocation, and safety protocols.
* Model description
* The Mountaineering Club database is designed to support the club's operations by organizing data related to climbers, mountains, climbs, guides, equipment, and more. It ensures data integrity, facilitates reporting, and enhances communication within the club.
* Definitions & Acronyms
* PK: Primary Key
* FK: Foreign Key
* Logical Scheme



* Objects

Table Description

Climber

Stores information about individual climbers.

Primary Key: ClimberID (Integer)

Fields: FirstName (Text), LastName (Text), Address (Text), Email (Text), Phone (Text)

Mountain

Contains details about different mountains.

Primary Key: MountainID (Integer)

Fields: MountainName (Text), Height (Decimal), Country (Text), Area (Text)

Climb

Records details about each climb, including start and end dates.

Primary Key: ClimbID (Integer)

Fields: StartDate (Date), EndDate (Date), MountainID (Integer, FK)

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| --- | --- | --- | --- |
| Table Name | Field name | Field Description | Data Type |
| Climber | ClimberID | <Climber\_ID>, PK | Int |
| First\_Name | <Name of climber> | Varchar |

Comments on table relationships

The Climber table is related to the Climb table via the ClimberClimb intermediary table to establish a many-to-many relationship.

The MountainGuide table associates mountains with guides, allowing multiple guides for a single mountain.

The ClimbEquipment table connects climbs with equipment, enabling the tracking of equipment usage.

Example with Data:

|  |  |  |  |
| --- | --- | --- | --- |
| ClimberID | FirstName | LastName | Address |
| 1  2 | Fettah  Umid | Nosirov  Kuchkarbayev | 123 Main St  456 Elm Ave |