Military Database

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The motivation and goal are to keep track of personnel, equipment, vehicles, and missions across multiple bases. Recording the dates in some entities will ensure we preserve useful historical data.

* Soldier has 1 or N Specialties. Specialty can belong to 0 or N members.
* Soldier has 1 Rank. Rank can belong to 0 or N members.
* Soldier has 0 or 1 supervisor (recursive relationship with another member).
* Soldier (must be sergeant or higher rank) can manage 0 or N Missions. Each Mission is managed by 1 Soldier (must be sergeant or higher rank).
* Mission is located in 1 Location. Location can have 0 or N Missions.
* Base IS-A Barracks or Storage.
* Soldier belongs to 0 or 1 Base (Barracks). Base (Barracks) has 0 or N Soldier s.
* Base is located in 1 Location. Location can have 0 or N Bases.
* Soldier can participate in only 1 Mission at a time but can be in multiple when they end, Mission can have 1 or N Soldier s.
* Vehicle is assigned to 0 or 1 Base (Storage). Base (Storage) can have 0 or N Vehicles.
* Equipment originates from 0 or 1 Base (Storage). Base (Storage) can have multiple Equipment.
* Soldier owns 0 or N Equipment, Equipment is owned by 0 or 1 Soldier .
* Soldier drives 0 or 1 Vehicle, Vehicle is driven by 0 or 1 Soldier .
* Mission Participation (Soldier +Mission) can be awarded 0 or 1 Medals. Mission Participation can have 0 or 1 Medals.
* Vehicle is one Vehicle Type. Vehicle Type can have 0 or N Vehicles.
* Equipment is one Equipment Type. Equipment Type can have 0 or N Equipements.
* Medal is one Medal Type. Medal Type can have 0 or N Medals.

*Entities:*

|  |  |
| --- | --- |
| *Soldier* | |
| *id* | *The unique id of member.* |
| *first\_name* | *Person’s first name.* |
| *last\_name* | *Person’s last name.* |
| *date\_of\_joining* | *The date when the Soldier started his service.* |

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| --- | --- |
| *Rank* | |
| *id* | *The unique identifier.* |
| *name* | *Rank’s name (e.g., soldier, sergeant, captain).* |
| *description* | *Rank’s description (optional).* |

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| --- | --- |
| *Specialty* | |
| *id* | *The unique identifier.* |
| *name* | *Specialty’s name (e.g., pilot, tank operator, medic, mechanic, ...).* |
| *description* | *Specialty’s description (optional).* |

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| --- | --- |
| *Base* | |
| *id* | *The unique identifier.* |
| *name* | *Base’s name.* |
| *type* | *Barracks or Storage.* |

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| --- | --- |
| *Location* | |
| *id* | *The unique identifier.* |
| *country* | *The country of the location.* |
| *city* | *The city of the location.* |

|  |  |
| --- | --- |
| *Equipment* | |
| *id* | *The unique identifier.* |
| *status* | *Status (functional, broken)* |

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| --- | --- |
| *Equipment Type* | |
| *id* | *The unique identifier.* |
| *type* | *Type (e.g., weapon, communication device, uniform, etc.).* |

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| --- | --- |
| *Vehicle* | |
| *id* | *The unique identifier.* |

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| --- | --- |
| *Vehicle Type* | |
| *id* | *The unique identifier.* |
| *model\_name* | *Model of vehicle.* |
| *name* | *Vehicle Type name (e.g., aircraft, tank, helicopter, transporter, etc.).* |

|  |  |
| --- | --- |
| *Mission* | |
| *id* | *The unique identifier.* |
| *name* | *Mission name.* |
| *description* | *Mission’s description.* |
| *start\_date* | *Date and time when mission begins.* |
| *end\_date* | *The date when it has completed. Might be null depending on status.* |
| *status* | *status (planned, active, completed, cancelled)* |

|  |  |
| --- | --- |
| *Medal* | |
| *id* | *The unique identifier.* |
| *award\_date* | *The date when award has been received.* |
| *description* | *Why the medal was awarded.* |

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| --- | --- |
| *Medal Type* | |
| *id* | *The unique identifier.* |
| *name* | *The name of the medal.* |