

Phase-2

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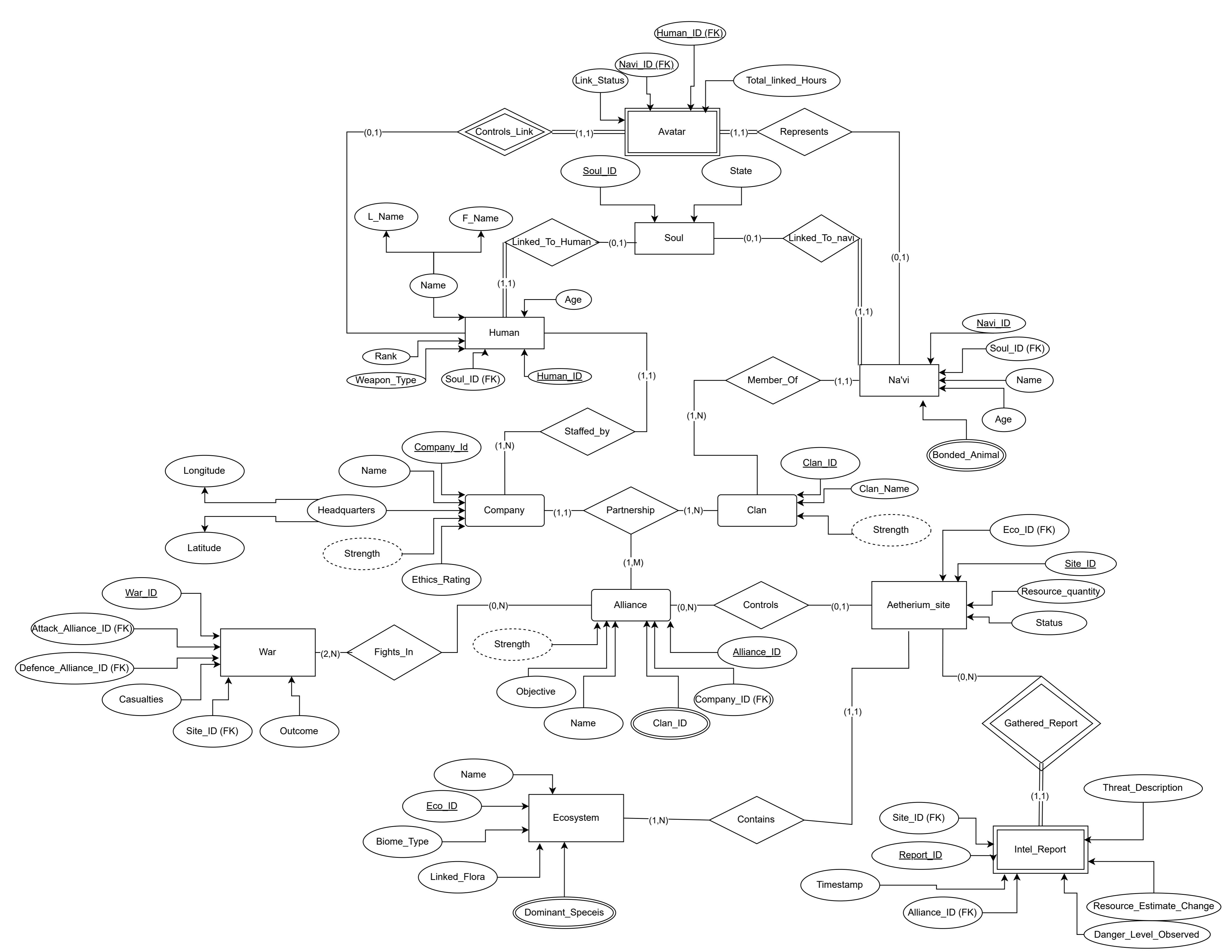
Changes to the Mini World

Relations

1. Linked_To [REMOVED] , Linked_to_Human[ADDED] and Linked_To_Navi[ADDED]
2. Monitors[REMOVED] , Contains[ADDED]
3. Controls_Link[ADDED] , Represents[ADDED],Gathered_Report[ADDED]

Entities

1. Company[MODIFIED]
 - a. Headquarters[MODIFIED]->Headquarters{Longitude,Latitude}
 - b. Strength[ADDED] - derived attribute
 - c. Resource_Investment[REMOVED]
2. Clan[MODIFIED]
 - a. Strength[ADDED] - derived attribute
 - b. Eco_ID (FK) [ADDED]
 - c. Leader,Territory,Eco_ID (FK)[REMOVED]
3. Human[MODIFIED]
 - a. Name[MODIFIED]->Name{F_name,L_name}
 - b. Squad_number,Company_ID [REMOVED]
 - c. Soul_ID (FK),Company_ID (FK) [ADDED]
4. Navi[MODIFIED]
 - a. Region,Clan_ID (FK)[REMOVED]
5. Alliance[MODIFIED]
 - a. Territory,Formed_On [REMOVED]
 - b. Strength[ADDED] - derived attribute
 - c. Clan_ID[ADDED] - multivalued attribute
6. Aetherium_Site[MODIFIED]
 - a. Region,Danger_Level [REMOVED]
 - b. Eco_ID (FK) [ADDED]
7. War[MODIFIED]
 - a. ATTACK_ALLIANCE_ID (FK), DEFENCE_ALLIANCE_ID (FK), SITE_ID (FK) [ADDED]
 - b. Region,Start_date,End_date[REMOVED]
8. Intel_Report (Weak_Entity) [ADDED]
 - a. Site_ID (FK), Report_ID (PK), Alliance_ID (FK),Timestamp, Danger_Level_Observed,Resource_Estimate_Change,Threat_Description [ADDED]
9. Participation (Weak_Entity) [REMOVED]
10. Avatar (Weak_Entity) [MODIFIED]
 - a. Total_Link_Hours[ADDED]



Anomalies

1. The Alliance entity cannot be instantiated because it requires Clan_ID as a multivalued attribute while simultaneously depending on the Participation relationship for its existence, creating a circular dependency where neither the Alliance nor its Participation record can be inserted first, effectively making it impossible to create new alliances in the database
2. Alliance identity is derived from Participation, but changing participation doesn't have clear semantics. Alliance identity is derived from its participating members, making it unclear whether such updates should create an entirely new alliance, modify the existing alliance composition, or split the alliance into multiple entities, with no defined business rules to govern this state transition.
3. War Relationship issues: Fights_In is (2,N) for War, meaning a war must have at least 2 alliances, but there's no distinction between attacker/defender. The separate Attack_Alliance_ID and Defence_Alliance_ID attributes contradict this relationship's flexibility. Nothing prevents the same Alliance_ID from being both attacker and defender in the same war.
4. Aetherium Site Control Anomaly: The Controls relationship is (0,N) to (0,1), meaning sites can exist without any alliance controlling them, yet they still have a status. Sites can generate Intel_Reports even when not controlled by anyone.
5. Intel Report Temporal Anomaly: Resource_Estimate_Change Without Baseline: This attribute implies a change, but there's no reference to previous reports or initial estimates. The first report for a site would have a meaningless "change" value.