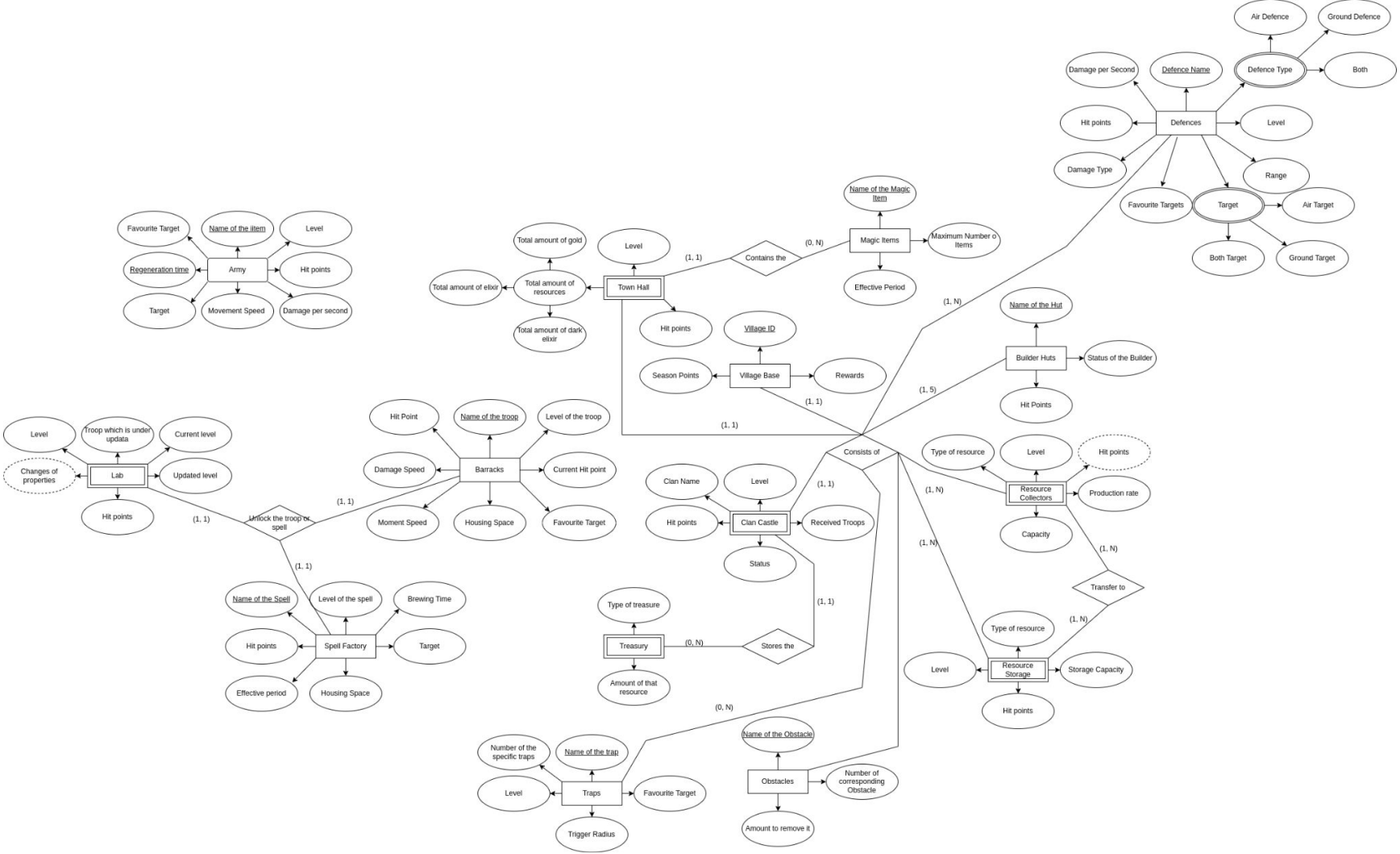
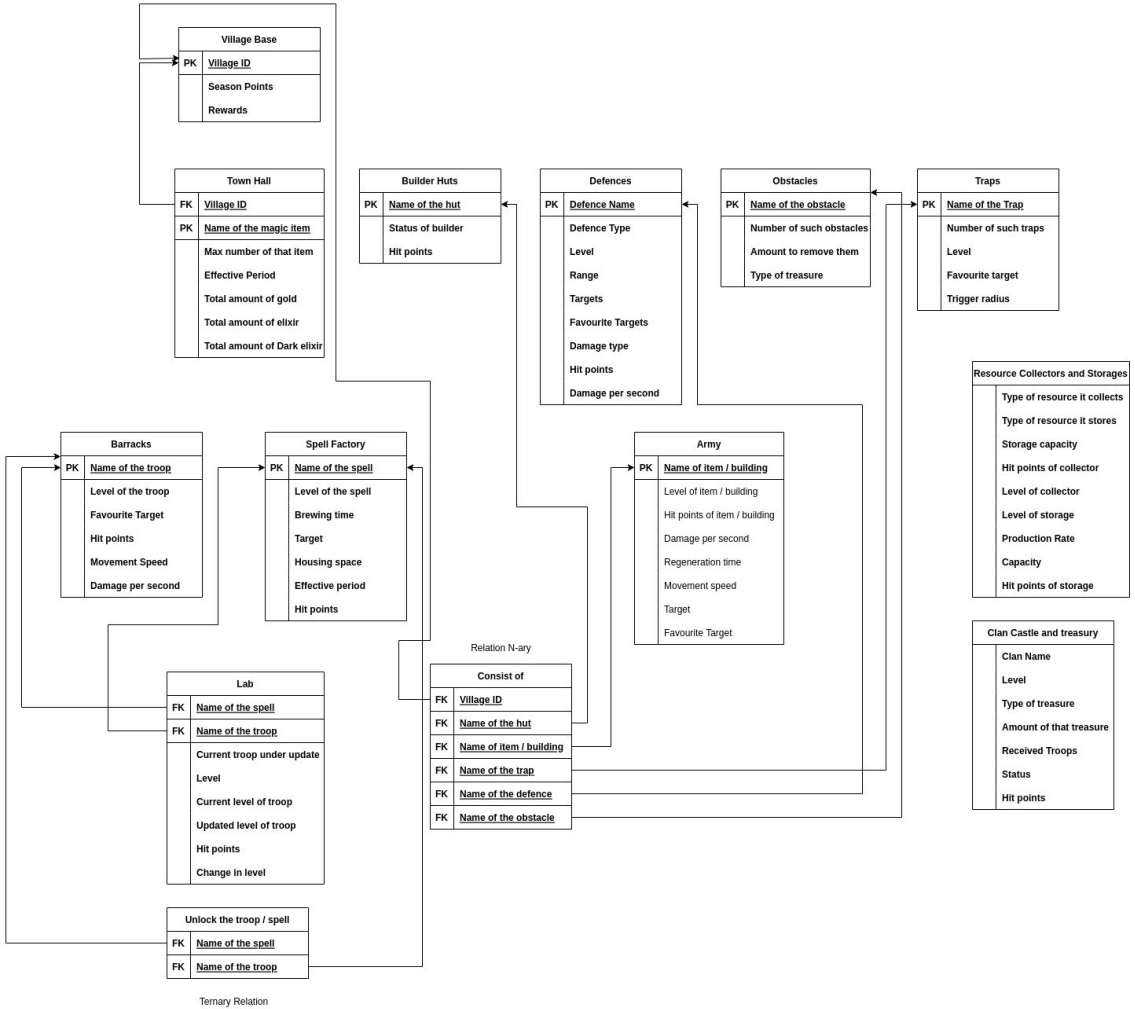
Mini World of the Project: Clash of Clans


Air Defence
Ground Defence
Damage per Second
Defence Name
Defence Type
Both
Hit points
Defences
Level
Damage Type
Range
Favourite Targets
Target
Air Target
Both Target
Ground Target
Favourite Target
Name of the item
Level
Regeneration time
Army
Hit points
Target
Movement Speed
Damage per second
Name of the Magic Item
Total amount of gold
Level
Magic Items
Maximum Number o Items
Total amount of elixir
Total amount of resources
Town Hall
Contains the
(0, N)
(1, 1)
Effective Period
Total amount of dark elixir
Hit points
Village ID
Season Points
Village Base
Rewards
(1, 1)
(1, N)
Name of the Hut
Builder Huts
Status of the Builder
(1, 5)
Hit Points
(1, 1)
Consists of
Level
Troop which is under updata
Current level
Changes of properties
Lab
Updated level
Hit points
(1, 1)
Unlock the troop or spell
(1, 1)
Hit Point
Name of the troop
Level of the troop
Damage Speed
Barracks
Current Hit point
Moment Speed
Housing Space
Favourite Target
Clan Name
Level
Hit points
Clan Castle
Received Troops
Status
(1, 1)
Type of resource
Level
Hit points
Resource Collectors
Production rate
Capacity
(1, N)
(1, N)
(1, N)
Transfer to
(1, N)
Name of the Spell
Level of the spell
Brewing Time
Hit points
Spell Factory
Target
Effective period
Housing Space
Type of treasure
Treasury
(0, N)
Stores the
Amount of that resource
(1, 1)
Type of resource
Level
Resource Storage
Storage Capacity
Hit points
(0, N)
Number of the specific traps
Name of the trap
Level
Traps
Favourite Target
Trigger Radius
Name of the Obstacle
Obstacles
Number of corresponding Obstacle
Amount to remove it

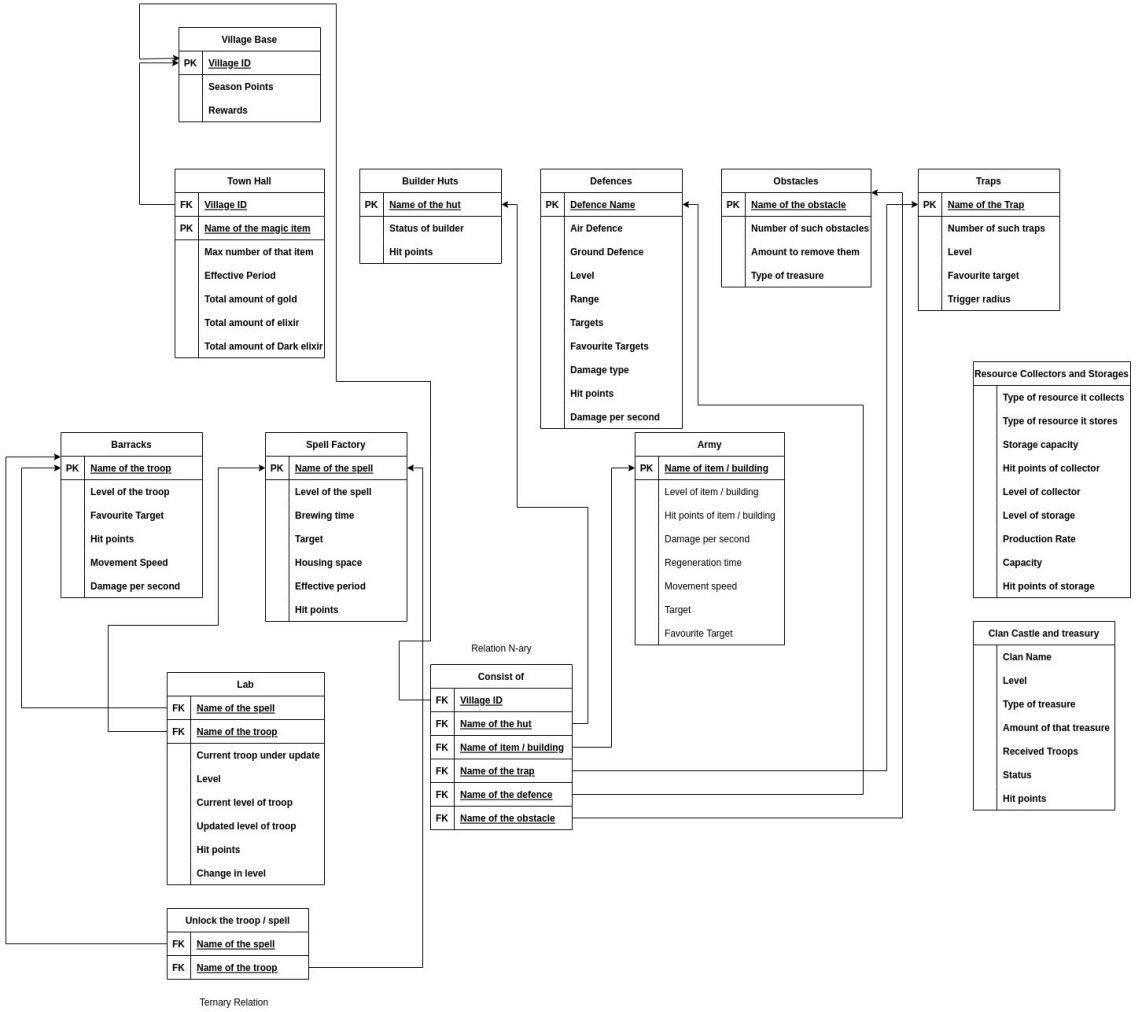
Step 1: Conversion of ER Model to Relational Model

- All the Entities are mentioned in the table format.
- The relation are established via foreign keys. The relations between 2 strong entities or a strong and weak entities are handled by adding extra attributes.
- That of ternary and N-ary relations are handled with an extra relation table mentioned in the model.



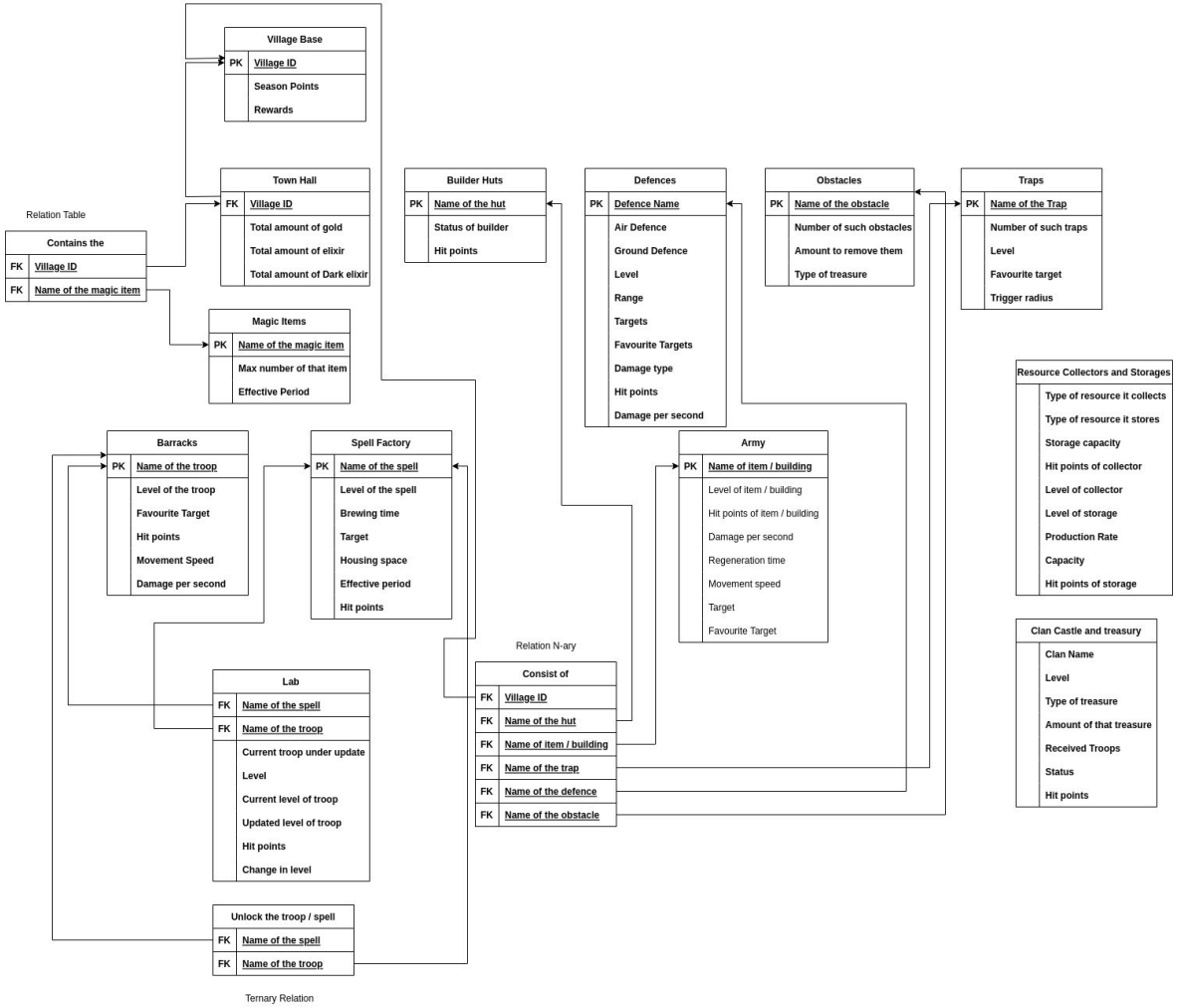
Step 2: Conversion of the Relational Model to 1NF

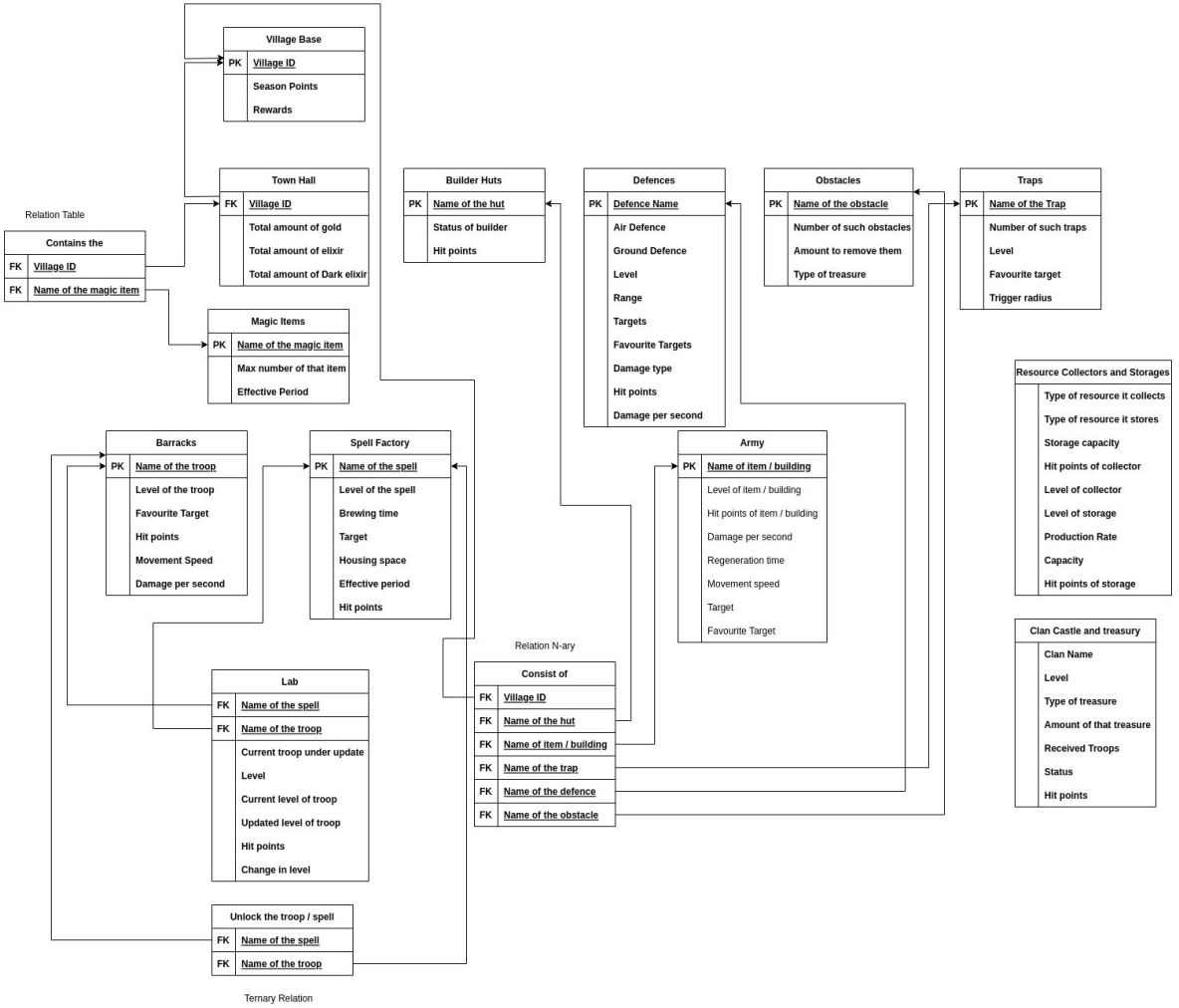
- No, major changes were made
- The multivalued attributes are given no chance to occur.



Step 3: Conversion of Relational Model into 2NF

- The Townhall table has the partial functional dependency.
- Therefore, we split it into two different tables so that they are completely functionally dependent.
- And they have a relation, so a relation table is also created.



Step 4: Conversion of Relational Model into 3NF

- No changes were made as there are no transitive dependencies in any part