Instructors

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Staff ID | Fname | Lname | Lessons per Week | Address |

Lift Operators

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| L\_ID | Fname | Lname | Hours per Week | Address |

Skier

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Phone Number | Fname | Lname | Experience Level | I\_ID |

Lessons

|  |  |  |  |
| --- | --- | --- | --- |
| I\_ID | Date | Difficulty Level | Location |

Chair Lifts

|  |  |  |
| --- | --- | --- |
| Start Point | End Point | L\_ID |

Weather

|  |
| --- |
| Date |

Forecast

|  |  |
| --- | --- |
| Date | Forecast |

TAKES\_LESSON

|  |  |
| --- | --- |
| Phone Number | I\_ID |

HAS\_PASS

|  |  |
| --- | --- |
| Phone Number | Start Point |

LIFTS\_RUNNING

|  |  |  |
| --- | --- | --- |
| Date | Start Point | Is\_Running |

LESSON\_ON

|  |  |
| --- | --- |
| I\_ID | Starting Point |

Multivalued Attributes are turned into a table 🡪 include ID of parent and itself

M:N relationships 🡪 include IDs of both things

1. Each entity type becomes a table
2. Each single valued attribute becomes a column
3. Ignore derived attributes
4. Multivalued attributes are represented by a table where the ID of their entity is the key
5. Weak entity types converted into table of their own w foreign key as a column

Converting relationships:

1. Binary 1:1
   1. (If one total) The primary key of the partial participation will become the foreign key of the total participant
   2. (If the same) Choose either to assign to other
2. 1: N
   1. The primary key of the relation on the “1” side of the relationship becomes a foreign key in the relation of the N side.
3. M:N
   1. A new table is created to represent the relationship and the primary key is a combination of the two keys