# ASSIGNMENT 7

MINIMAL COVER

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|  | Table Name | Functional Dependency | Minimal Cover | B.C.N.F. form exists? |
|  | Station | Station Id -> Station\_Name  Station\_Name-> Station ID | Station Id -> Station\_Name | Yes |
|  | City | City Id -> City\_Name  City\_Name-> City ID | City Id -> City\_Name | Yes |
|  | State | State Id -> State\_Name  State\_Name-> State ID | State Id -> State\_Name | Yes |
|  | City\_Station | Station ID -> City\_ID | Station ID -> City\_ID | Yes |
|  | State\_City | City ID -> State\_ID | City ID -> State\_ID | Yes |
|  | Pollutant | Pollutant ID -> Pollutant\_name, Unit  Pollutant\_Name -> Pollutant ID, Unit | Pollutant ID -> Pollutant\_name Pollutant ID -> Unit | Yes |
|  | Solar | State\_ID -> State\_name, units  State\_name -> State\_ID, units | State\_ID - > State\_name  State\_ID -> units | No |
|  | Wind | State\_ID -> State\_name, units  State\_name -> State\_ID, units | State\_ID - > State\_name  State\_ID -> units | No |
|  | Hydro | State\_ID -> State\_name, units  State\_name -> State\_ID, units | State\_ID - > State\_name  State\_ID -> units | No |
|  | Biomass | State\_ID -> State\_name, units  State\_name -> State\_ID, units | State\_ID - > State\_name  State\_ID -> units | No |
|  | Station\_hour | Station ID, Date\_Time, Pollutant ID -> Concentration | Station ID, Date\_Time, Pollutant ID -> Concentration | Yes |
|  | City\_Hour | City\_ID, Date\_Time, Pollutant ID -> Concentration | City\_ID, Date\_Time, Pollutant ID -> Concentration | Yes |
|  | State\_hour | State\_ID, Date\_Time, Pollutant ID -> Concentration | State\_ID, Date\_Time, Pollutant ID -> Concentration | Yes |
|  | Station\_Day | Station ID, Date, Pollutant ID -> Concentration | Station ID, Date, Pollutant ID -> Concentration | Yes |
|  | City\_Day | City\_ID, Date, Pollutant ID -> Concentration | City\_ID, Date, Pollutant ID -> Concentration | Yes |
|  | State\_Day | State\_ID, Date, Pollutant ID -> Concentration | State\_ID, Date, Pollutant ID -> Concentration | Yes |
|  | Petroleum\_Products | Product\_Name -> Product\_ID  Product\_ID-> Product\_name | Product\_ID-> Product\_name | Yes |
|  | Monthly Consumption of Products | Product\_ID, Month, Year -> Consumption | Product\_ID, Month, Year -> Consumption | Yes |
|  | Yearly Consumption | Product\_ID, Year -> Consumption | Product\_ID, Year -> Consumption | Yes |
|  | Analysis | Year -> Y\_O\_Y Growth | Year -> Y\_O\_Y Growth | Yes |

**Note:**

All the tables are already in normalized form except specified.