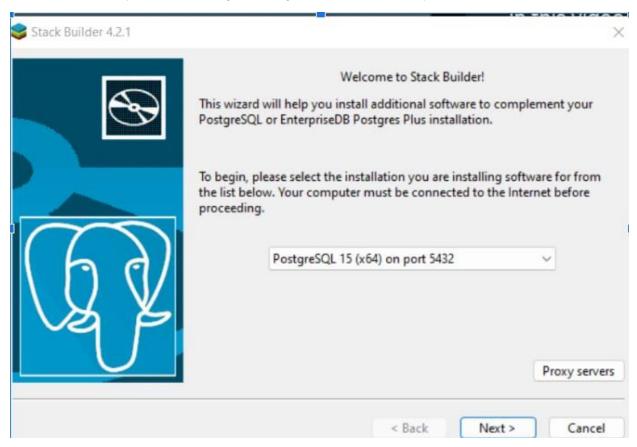
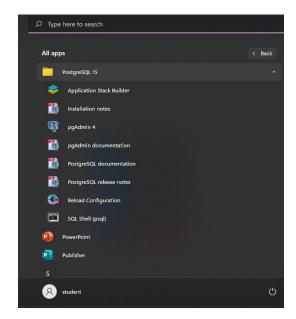
Project part II

Installation of pgAdmin on local machine:

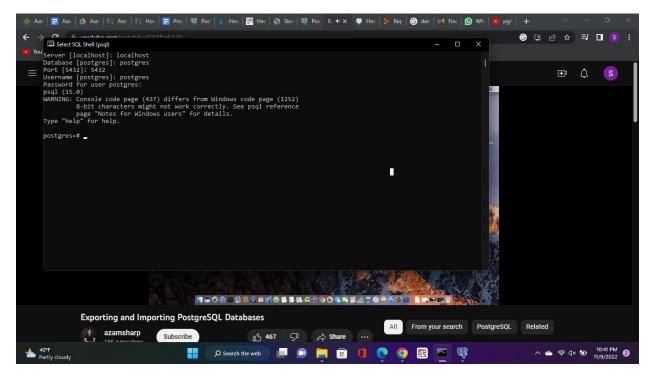
I have successfully installed Postgres using this link here. On my local machine.



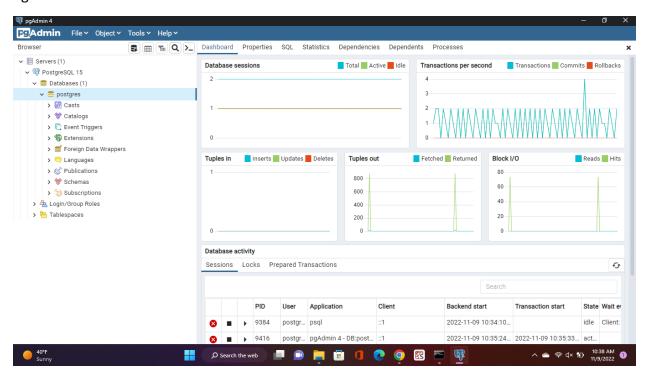
After the Installation:



SQShell

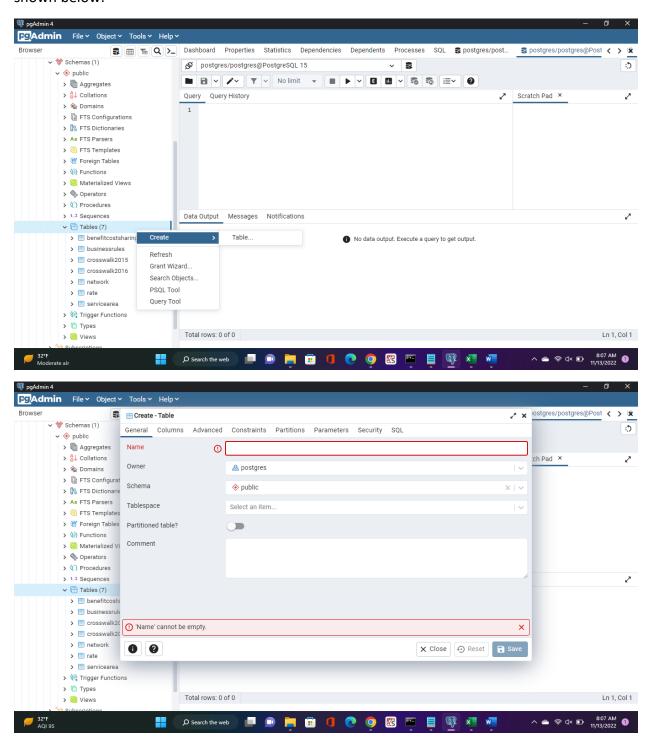


PgAdmin

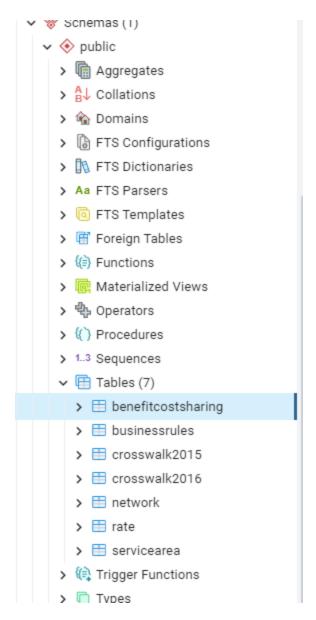


Creating the tables:

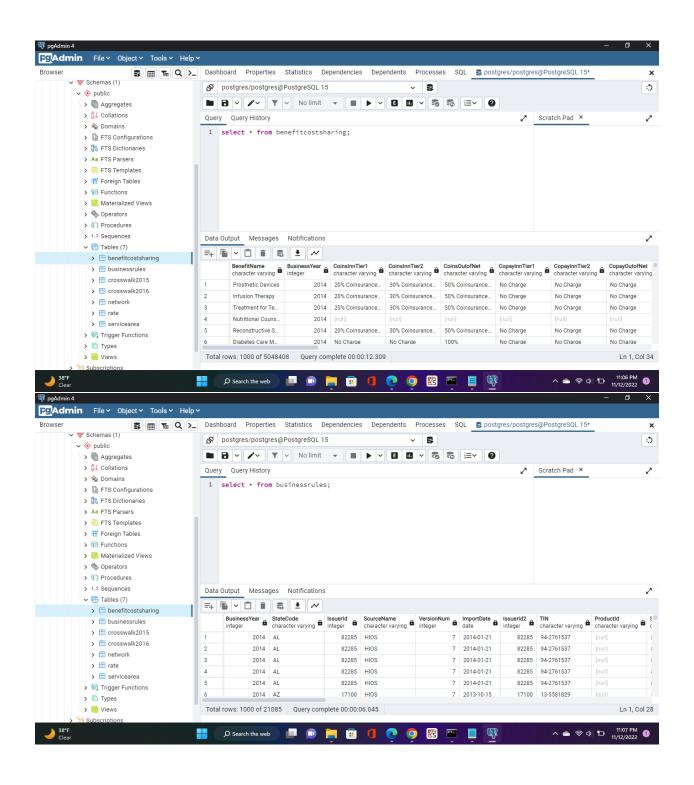
By right clicking on the tables we have the create table option and it pops up a window as shown below:

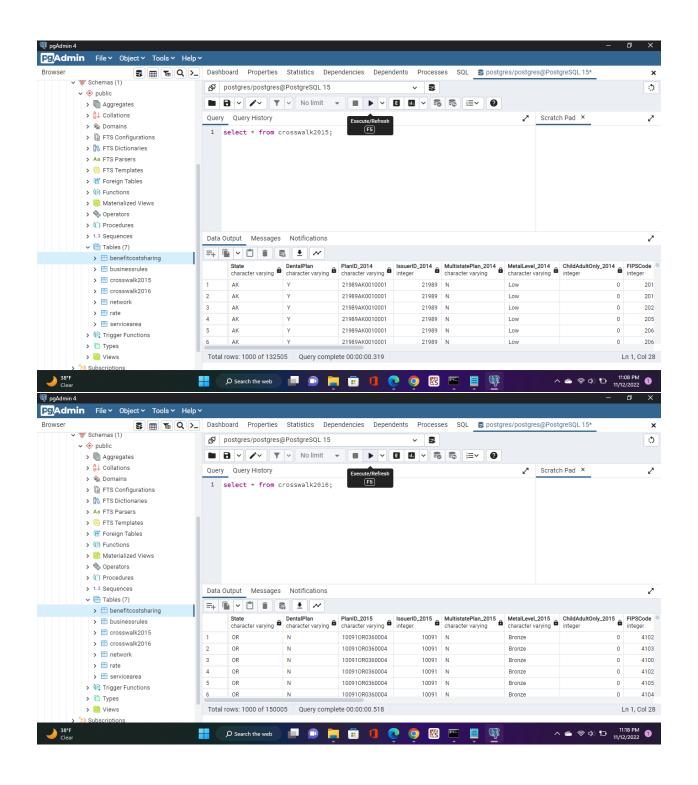


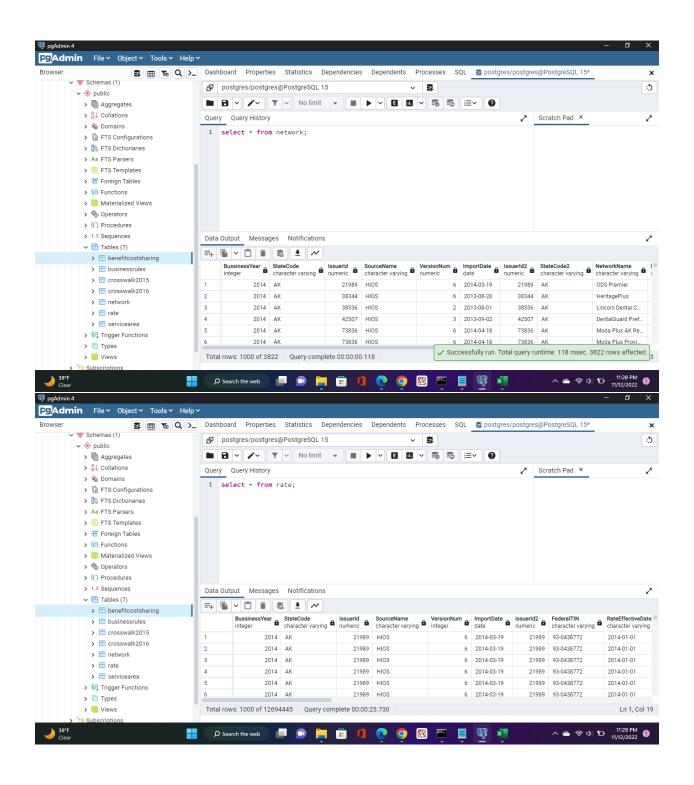
I have imported the data after creating the tables into the postgres as shown below

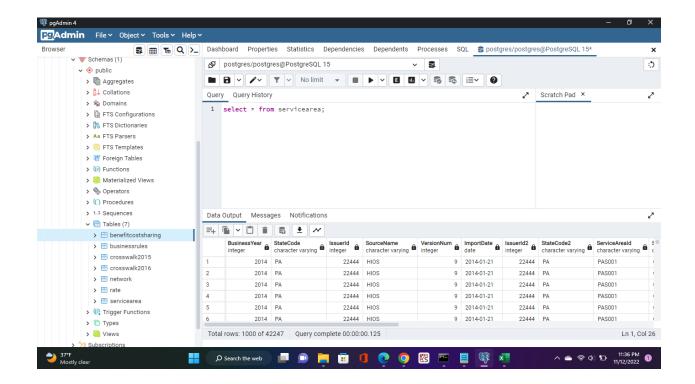


Created tables:

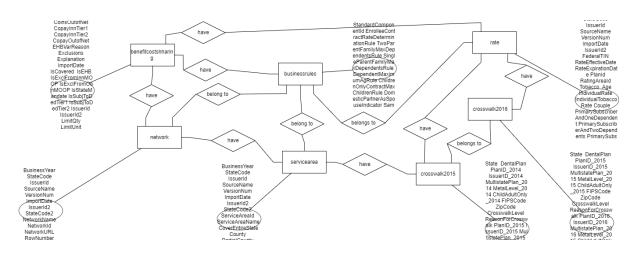








ER Diagram:



Schemas:

Benefitcostsharing->

"BenefitName" character varying COLLATE pg catalog."default",

"BusinessYear" integer,

"CoinsInnTier1" character varying COLLATE pg_catalog."default",

```
"CoinsInnTier2" character varying COLLATE pg_catalog."default",
"CoinsOutofNet" character varying COLLATE pg catalog. "default",
"CopayInnTier1" character varying COLLATE pg_catalog."default",
"CopayInnTier2" character varying COLLATE pg_catalog."default",
"CopayOutofNet" character varying COLLATE pg_catalog."default",
"EHBVarReason" character varying COLLATE pg catalog."default",
"Exclusions" character varying COLLATE pg_catalog."default",
"Explanation" character varying COLLATE pg_catalog."default",
"ImportDate" date,
"IsCovered" character varying COLLATE pg catalog."default",
"IsEHB" character varying COLLATE pg catalog."default",
"IsExclFromInnMOOP" character varying COLLATE pg catalog."default",
"IsExclFromOonMOOP" character varying COLLATE pg catalog."default",
"IsStateMandate" character varying COLLATE pg catalog."default",
"IsSubjToDedTier1" character varying COLLATE pg catalog."default",
"IsSubjToDedTier2" character varying COLLATE pg catalog."default",
"IssuerId" numeric,
"IssuerId2" numeric,
"LimitQty" numeric,
"LimitUnit" character varying COLLATE pg catalog. "default",
"MinimumStay" character varying COLLATE pg catalog. "default",
"PlanId" character varying COLLATE pg catalog."default",
"QuantLimitOnSvc" character varying COLLATE pg catalog."default",
"RowNumber" integer,
"SourceName" character varying COLLATE pg catalog."default",
"StandardComponentId" character varying COLLATE pg_catalog."default",
"StateCode" character varying COLLATE pg_catalog."default",
"StateCode2" character varying COLLATE pg catalog."default",
"VersionNum" integer
```

```
businessrules->
  "BusinessYear" integer,
  "StateCode" character varying COLLATE pg catalog."default",
  "IssuerId" integer,
  "SourceName" character varying COLLATE pg catalog."default",
  "VersionNum" integer,
  "ImportDate" date,
  "IssuerId2" integer,
  "TIN" character varying COLLATE pg catalog. "default",
  "ProductId" character varying COLLATE pg catalog."default",
  "StandardComponentId" character varying COLLATE pg catalog."default",
  "EnrolleeContractRateDeterminationRule" character varying COLLATE pg_catalog."default",
  "TwoParentFamilyMaxDependentsRule" character varying COLLATE pg_catalog."default",
  "SingleParentFamilyMaxDependentsRule" character varying COLLATE pg_catalog."default",
  "DependentMaximumAgRule" character varying COLLATE pg_catalog."default",
  "ChildrenOnlyContractMaxChildrenRule" character varying COLLATE pg_catalog."default",
  "DomesticPartnerAsSpouseIndicator" character varying COLLATE pg_catalog."default",
  "SameSexPartnerAsSpouseIndicator" character varying COLLATE pg_catalog."default",
  "AgeDeterminationRule" character varying COLLATE pg_catalog."default",
  "MinimumTobaccoFreeMonthsRule" character varying COLLATE pg catalog."default",
  "CohabitationRule" character varying COLLATE pg_catalog."default",
  "RowNumber" integer,
  "MarketCoverage" character varying COLLATE pg catalog."default",
  "DentalOnlyPlan" character varying COLLATE pg catalog."default"
crosswalk2015 ->
  "State" character varying COLLATE pg_catalog."default",
  "DentalPlan" character varying COLLATE pg catalog. "default",
  "PlanID 2014" character varying COLLATE pg catalog."default",
```

```
"IssuerID 2014" integer,
  "MultistatePlan 2014" character varying COLLATE pg catalog."default",
  "MetalLevel_2014" character varying COLLATE pg_catalog."default",
  "ChildAdultOnly_2014" integer,
  "FIPSCode" integer,
  "ZipCode" integer,
  "CrosswalkLevel" integer,
  "ReasonForCrosswalk" integer,
  "PlanID_2015" character varying COLLATE pg_catalog."default",
  "IssuerID 2015" numeric,
  "MultistatePlan 2015" character varying COLLATE pg catalog. "default",
  "MetalLevel 2015" character varying COLLATE pg catalog. "default",
  "ChildAdultOnly 2015" character varying COLLATE pg catalog."default",
  "AgeOffPlanID 2015" character varying COLLATE pg catalog. "default",
  "IssuerID AgeOff2015" integer,
  "MultistatePlan_AgeOff2015" character varying COLLATE pg_catalog."default",
  "MetalLevel_AgeOff2015" character varying COLLATE pg_catalog."default",
  "ChildAdultOnly_AgeOff2015" character varying COLLATE pg_catalog."default"
crosswalk2015 ->
  "State" character varying COLLATE pg catalog. "default",
  "DentalPlan" character varying COLLATE pg catalog."default",
  "PlanID 2014" character varying COLLATE pg catalog."default",
  "IssuerID 2014" integer,
  "MultistatePlan 2014" character varying COLLATE pg catalog."default",
  "MetalLevel_2014" character varying COLLATE pg_catalog."default",
  "ChildAdultOnly 2014" integer,
  "FIPSCode" integer,
```

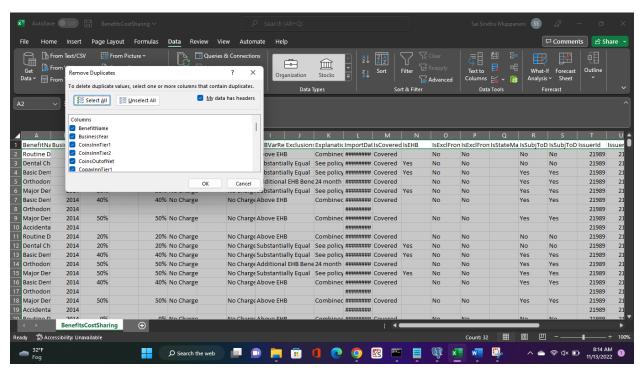
```
"ZipCode" integer,
  "CrosswalkLevel" integer,
  "ReasonForCrosswalk" integer,
  "PlanID_2015" character varying COLLATE pg_catalog."default",
  "IssuerID_2015" numeric,
  "MultistatePlan_2015" character varying COLLATE pg_catalog."default",
  "MetalLevel_2015" character varying COLLATE pg_catalog."default",
  "ChildAdultOnly_2015" character varying COLLATE pg_catalog."default",
  "AgeOffPlanID_2015" character varying COLLATE pg_catalog."default",
  "IssuerID AgeOff2015" integer,
  "MultistatePlan AgeOff2015" character varying COLLATE pg catalog."default",
  "MetalLevel_AgeOff2015" character varying COLLATE pg_catalog."default",
  "ChildAdultOnly AgeOff2015" character varying COLLATE pg_catalog."default"
crosswalk2016 ->
  "State" character varying COLLATE pg_catalog."default",
  "DentalPlan" character varying COLLATE pg_catalog."default",
  "PlanID_2015" character varying COLLATE pg_catalog."default",
  "IssuerID_2015" integer,
  "MultistatePlan_2015" character varying COLLATE pg_catalog."default",
  "MetalLevel 2015" character varying COLLATE pg catalog. "default",
  "ChildAdultOnly 2015" integer,
  "FIPSCode" integer,
  "ZipCode" integer,
  "CrosswalkLevel" integer,
  "ReasonForCrosswalk" integer,
  "PlanID_2016" character varying COLLATE pg_catalog."default",
  "IssuerID 2016" numeric,
  "MultistatePlan_2016" character varying COLLATE pg_catalog."default",
```

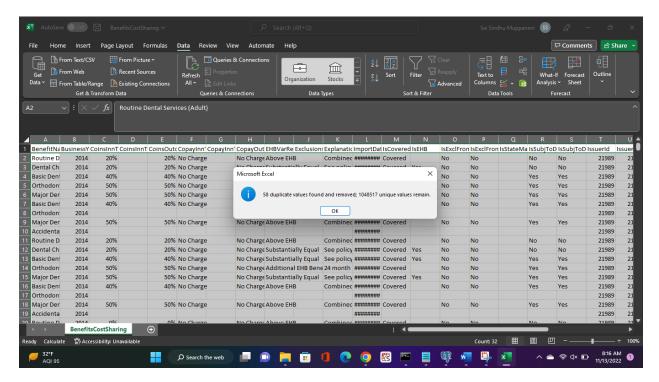
```
"MetalLevel 2016" character varying COLLATE pg catalog."default",
  "ChildAdultOnly 2016" character varying COLLATE pg catalog."default",
  "AgeOffPlanID_2016" character varying COLLATE pg_catalog."default",
  "IssuerID AgeOff2016" integer,
  "MultistatePlan_AgeOff2016" character varying COLLATE pg_catalog."default",
  "MetalLevel_AgeOff2016" character varying COLLATE pg_catalog."default",
  "ChildAdultOnly_AgeOff2016" character varying COLLATE pg_catalog."default"
Network ->
  "BussinessYear" integer,
  "StateCode" character varying COLLATE pg catalog."default",
  "IssuerId" numeric,
  "SourceName" character varying COLLATE pg catalog."default",
  "VersionNum" numeric,
  "ImportDate" date,
  "IssuerId2" numeric,
  "StateCode2" character varying COLLATE pg_catalog."default",
  "NetworkName" character varying COLLATE pg_catalog."default",
  "NetworkId" character varying COLLATE pg_catalog."default",
  "NetworkURL" character varying COLLATE pg_catalog."default",
  "RowNumber" integer,
  "MarketCoverage" character varying COLLATE pg_catalog."default",
  "DentalOnlyPlan" character varying COLLATE pg catalog."default"
Rate ->
  "BussinessYear" integer,
  "StateCode" character varying COLLATE pg_catalog."default",
  "IssuerId" numeric,
  "SourceName" character varying COLLATE pg_catalog."default",
```

```
"VersionNum" integer,
  "ImportDate" date,
  "IssuerId2" numeric,
  "FederalTIN" character varying COLLATE pg_catalog."default",
  "RateEffectiveDate" character varying COLLATE pg_catalog."default",
  "RateExpirationDate" character varying COLLATE pg_catalog."default",
  "PlanId" character varying COLLATE pg_catalog."default",
  "RatingAreald" character varying COLLATE pg_catalog."default",
  "Tobacco" character varying COLLATE pg_catalog."default",
  "Age" character varying COLLATE pg catalog. "default",
  "IndividualRate" real,
  "IndividualTobaccoRate" character varying COLLATE pg catalog."default",
  "Couple" numeric,
  "PrimarySubscriberAndOneDependent" numeric,
  "PrimarySubscriberAndTwoDependents" numeric,
  "PrimarySubscriberAndThreeOrMoreDependents" numeric,
  "CoupleAndOneDependent" numeric,
  "CoupleAndTwoDependents" numeric,
  "CoupleAndThreeOrMoreDependents" numeric,
  "RowNumber" integer
servicearea ->
  "BusinessYear" integer,
  "StateCode" character varying COLLATE pg catalog."default",
  "IssuerId" integer,
  "SourceName" character varying COLLATE pg catalog."default",
  "VersionNum" integer,
  "ImportDate" date,
  "IssuerId2" integer,
```

- "StateCode2" character varying COLLATE pg_catalog."default",
- "ServiceAreald" character varying COLLATE pg_catalog."default",
- "ServiceAreaName" character varying COLLATE pg_catalog."default",
- "CoverEntireState" character varying COLLATE pg_catalog."default",
- "County" numeric,
- "PartialCounty" character varying COLLATE pg_catalog."default",
- "ZipCodes" character varying COLLATE pg_catalog."default",
- "PartialCountyJustification" character varying COLLATE pg_catalog."default",
- "RowNumber" integer,
- "MarketCoverage" character varying COLLATE pg_catalog."default",
- "DentalOnlyPlan" character varying COLLATE pg catalog."default"

Removing Dupicates:





Payment and Cost-Sharing - Information on cost sharing, coverage caps, and essential health benefits at the plan variant level. Rate: Information about rates at the plan level, including family-tier prices and rates based on an eligible subscriber's age, tobacco use, and geography. Business Rules - Information on grading business rules at the plan level, such as the maximum age for a dependent and the permitted dependent relationships. Geographic service area data at the issuer level, including state, county, and zip code. Network-level information from the issuer indicating provider network URLs.

QUERIES:

```
select COUNT(*),Max("IssuerId"),Min("IssuerId"),
sum("VersionNum"),
AVG("VersionNum")
from BusinessRules
where "StateCode" = 'AL';
------
select COUNT(*),Max("CoinsOutofNet")
```

from benefitcostsharing

where "BenefitName" = 'Routine Dental Services (Adult)';
select COUNT(*),Max("BusinessYear")
from benefitcostsharing
where "BenefitName" = 'Routine Dental Services (Adult)';
SELECT "IssuerId", "IssuerId
"IssuerId"+"IssuerId2","IssuerId"-"IssuerId2"
from businessrules
where ("IssuerId"+"IssuerId2") > 15000
AND ("IssuerId"-"IssuerId2") < 15000 ;

