

---

# VIEWS FOR STUDENT AID DATABASE SYSTEM

GROUP 10:

- ASFAN SAJID
- DISHA SENGAR
- LATISH TALREJA
- SANDHYA GOSWAMI
- SUSHMITHA JOGULA



# VIEWS

## STUDENT FUND DETAILS

```
Create View vw_StudentFundDetails as
select * from
(select s.studentID, (s.StudentFisrtName + ' ' + s.StudentLastName)
                                                    as StudentName,
(d.DonorFisrtName + ' ' + d.DonorLastName) as Donor,
u.Name as University, sum(t.Amount) Funded
from Transactions t inner join
student as s on t.StudentID = s.StudentID
inner join StudentAcademicRecords r on s.StudentID = r.StudentID
inner join University u on r.UniversityId = u.UniversityId
inner join donor d on t.DonorID = d.DonorID

group by s.studentID, (s.StudentFisrtName + ' ' + s.StudentLastName) , u.Name ,
(d.DonorFisrtName + ' ' + d.DonorLastName) --, (s.DonorFisrtName + ' ' + s.DonorLastName)
```

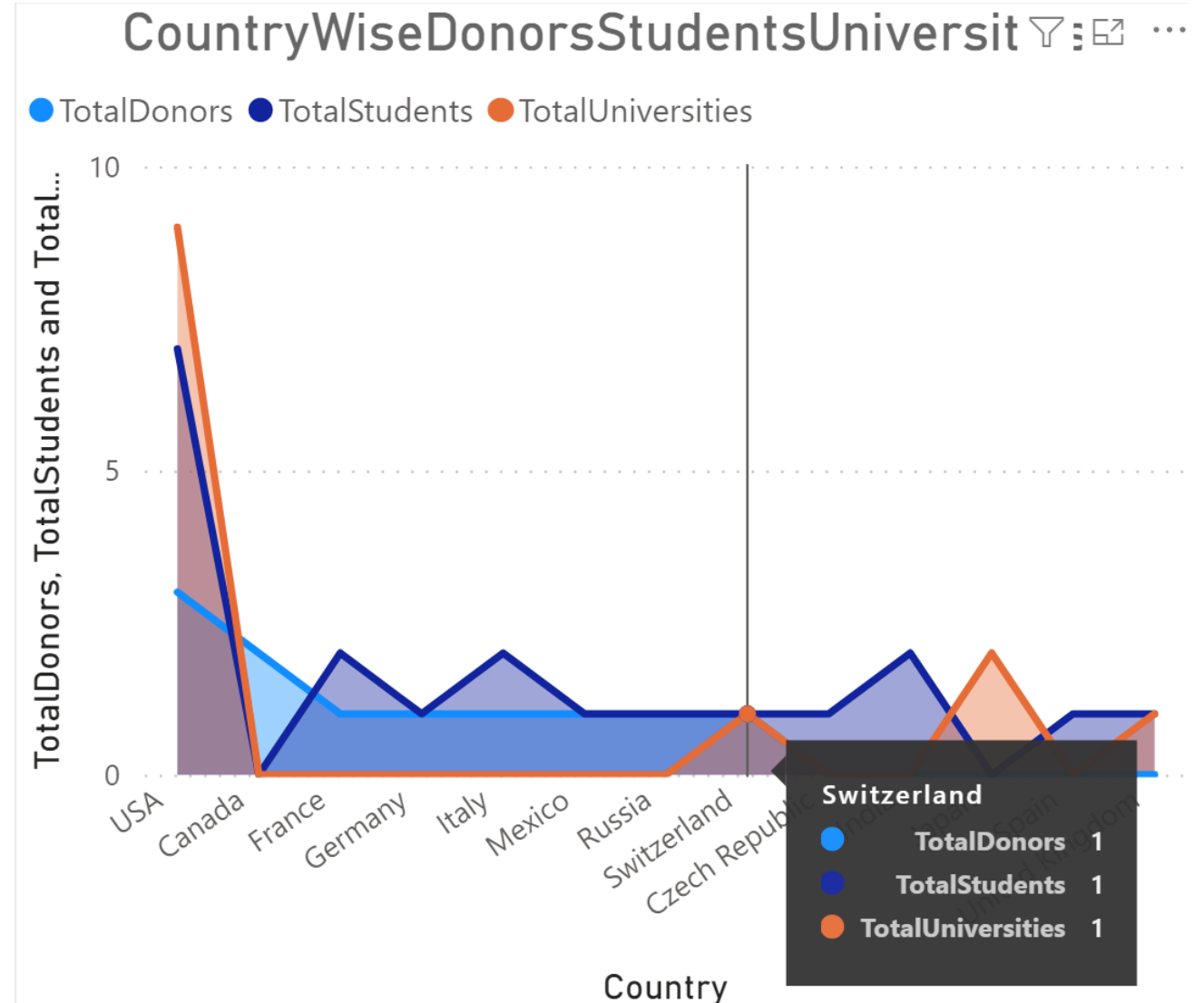
	studentID	StudentName	Donor	University	Funded
1	502	Margot Robbie	Caroline Phelps	Stanford University	9500
2	503	Sandhya Goswami	Marcia Erickson	University of Oxford	6600
3	504	Disha Sengar	Brad Hudson	Princeton University	5800
4	505	Sushmitha Jogula	Sabrina Fisher	Stanford University	2800
5	506	Erica Douglas	Terrel Graves	Yale University	3000
6	507	Barry Tucker	Eula Lee	Columbia University	4000
7	508	Margie Powell	Winston Castro	University of Tokyo	10000
8	509	Jimmy Holt	Brian Morgan	Cornell University	13000
9	510	Candace Jordan	Sandoval Ernesto	John Hopkins University	18000
10	511	Garret Washington	Archie Hala	Swiss Federal Institute of Technology	17000

# VIEWS

## TOTAL NUMBER OF STUDENTS, UNIVERSITIES, AND DONORS COUNTRY WISE

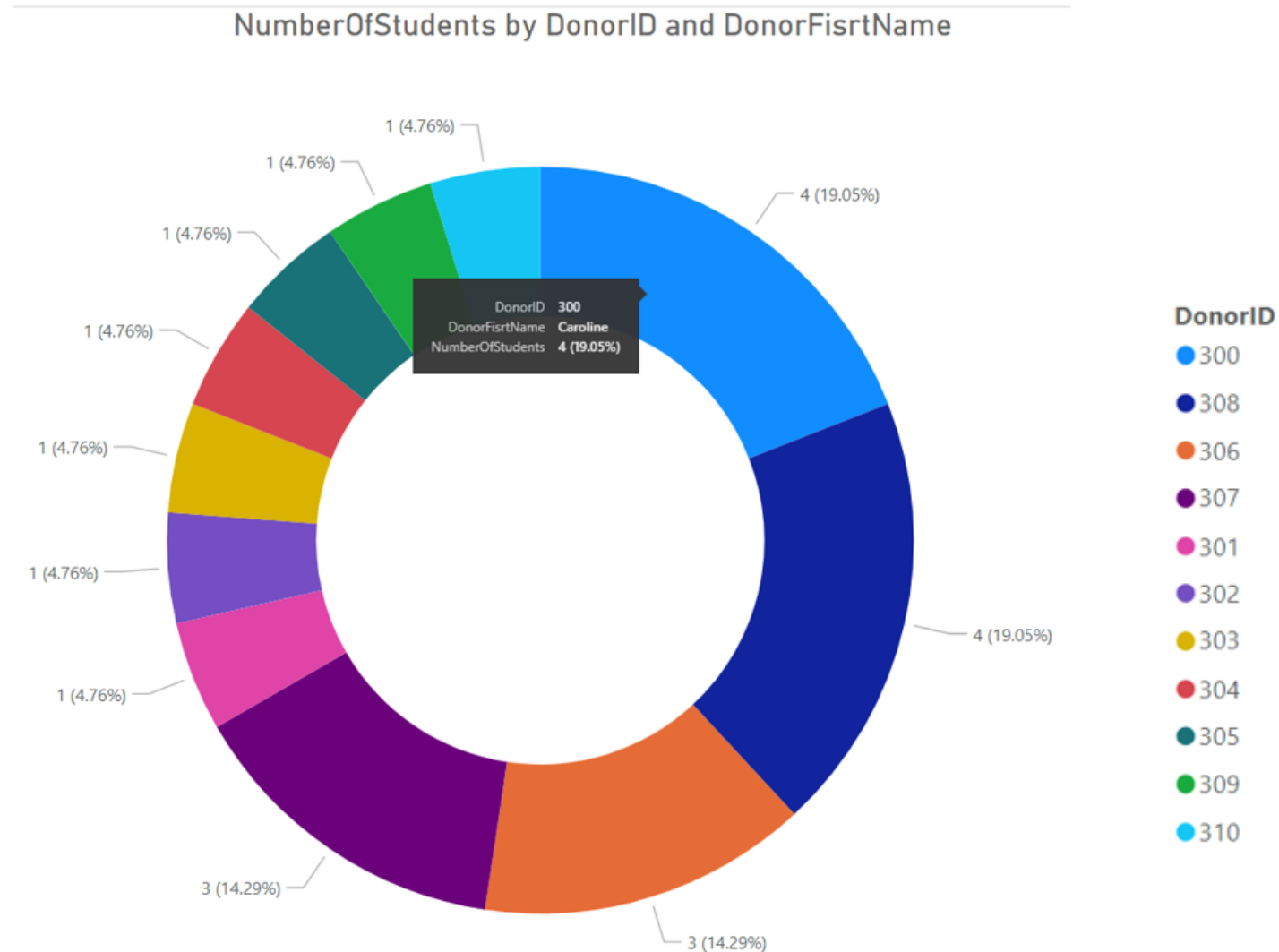
```
Create view [dbo].[TotalDonor_Students_University_AcrossTheCountry]
as
select * from (
select a.Country, isnull(b.totalStudents, 0) TotalStudents,
isnull(c.totalDonors, 0) TotalDonors, isnull(d.TotalUniversities, 0) TotalUniversities
from (select distinct country from UserAddress
UNION
select distinct country from university) a
full outer join
(select Count(ua.userID) totalStudents, ad.Country from UsersAccount ua
inner join UserAddress ad on ua.UserID = ad.UserID
where ua.Role = 'Student'
group by ad.Country) as b on a.Country = b.Country
full outer JOIN
(select Count(ua.userID) totalDonors, ad.Country from UsersAccount ua
inner join UserAddress ad on ua.UserID = ad.UserID
where ua.Role = 'Donor'
group by ad.Country) c on a.Country = c.Country
full outer join
(select count(universityID) TotalUniversities, country from university
group by Country) as d
on a.Country = d.Country
) as r
```

	Country	TotalStudents	TotalDonors	TotalUniversities
1	Canada	0	2	0
2	Czech Republic	1	0	0
3	France	2	1	0
4	Germany	1	1	0
5	India	2	0	0
6	Italy	2	1	0
7	Japan	0	0	2
8	Mexico	1	1	0
9	Russia	1	1	0
10	Spain	1	0	0
11	Switzerland	1	1	1
12	United Kingdom	1	0	1
13	USA	7	3	9



## GRANTS BY DONORS

	DonorID	DonorFisrtName	DonorLastName	TotalAmountDonated	NumberOfStudents
1	300	Caroline	Phelps	44005	4
2	301	Gray	Santiago	9500	1
3	302	Marcia	Erickson	6600	1
4	303	Brad	Hudson	5800	1
5	304	Sabrina	Fisher	2800	1
6	305	Terrel	Graves	3000	1
7	306	Eula	Lee	29688	3
8	307	Winston	Castro	18780	3
9	308	Brian	Morgan	44000	4
10	309	Sandoval	Ernesto	18000	1
11	310	Archie	Hala	17000	1



# VIEWS

## COUNTRY WISE RANKS OF DONORS

```
CREATE View [dbo].[vw_RankDonorsCountryWise] as
select * ,
(case when ran = 1 then '1st in entire ' +
DonorLivesIn when ran= 2 then '2nd in entire ' + DonorLivesIn
when ran=3 then '3rd in entire ' + DonorLivesIn end) as AwardedAs
from
(
select t.DonorID,
(d.DonorFisrtName + ' ' + d.DonorLastName) as DonorName,
sum(t.Amount) TotalGrants, ad.Country as DonorLivesIn
, rank() over( Partition by ad.Country order by sum(t.Amount) desc ) ran
from Transactions t inner join
donor d on t.DonorID = d.DonorID
inner join [UserAddress] ad on d.userID = ad.UserID
group by t.donorID, (d.DonorFisrtName + ' ' + d.DonorLastName) ,ad.Country
) as details where ran < 4
GO
```

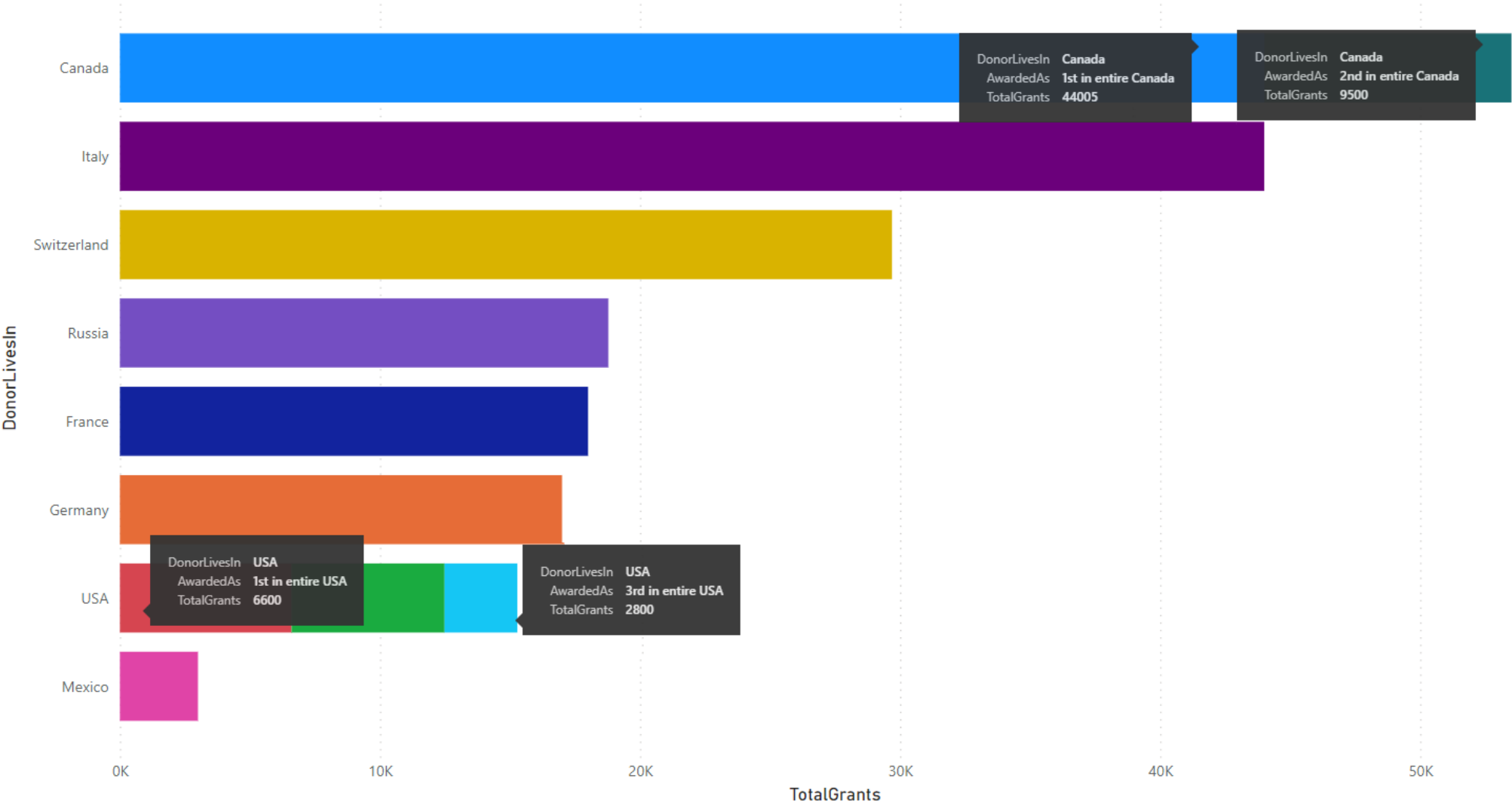
	DonorID	DonorName	TotalGrants	DonorLivesIn	ran	AwardedAs
1	300	Caroline Phelps	44005	Canada	1	1st in entire Canada
2	301	Gray Santiago	9500	Canada	2	2nd in entire Canada
3	309	Sandoval Ernesto	18000	France	1	1st in entire France
4	310	Archie Hala	17000	Germany	1	1st in entire Germany
5	308	Brian Morgan	44000	Italy	1	1st in entire Italy
6	305	Terrel Graves	3000	Mexico	1	1st in entire Mexico
7	307	Winston Castro	18780	Russia	1	1st in entire Russia
8	306	Eula Lee	29688	Switzerland	1	1st in entire Switzerland
9	302	Marcia Erickson	6600	USA	1	1st in entire USA
10	303	Brad Hudson	5800	USA	2	2nd in entire USA
11	304	Sabrina Fisher	2800	USA	3	3rd in entire USA

# REPORT

CountryWiseDonationsByDonors



**AwardedAs** ● 1st in entire Ca... ● 1st in entire Fr... ● 1st in entire G... ● 1st in entire It... ● 1st in entire ... ● 1st in entire ... ● 1st in entire ... ● 1st in entire ... ● 2nd in entir... ● 2nd in entir... ● 3rd in entir...





# VIEWS

## COUNTRIES OF DONORS, STUDENTS, UNIVERSITIES

```
CREATE view [dbo].[CountryToCountries_commaSaperated]
As
With temp(donorCountry,StudentCountry,unicountry) As
(
select dbo.getCountry(dbo.GetUserID(t.donorID)) as donorCountry,
dbo.getCountry(dbo.GetUserID(t.studentID)) as StudentCountry,
u.Country as unicountry
from Transactions t inner join StudentAcademicRecords r
on t.StudentID = r.StudentID
inner join university u
on r.UniversityID = u.UniversityID
group by dbo.getCountry(dbo.GetUserID(t.donorID)) ,
dbo.getCountry(dbo.GetUserID(t.studentID)) , u.Country
)

select distinct temp.donorCountry as DonorFrom ,
isNull(String_agg(temp.StudentCountry,',','')) as studentsFrom
,isNull(String_agg(temp.unicountry,',','')) as UniversitiesIn
from temp
group by temp.donorCountry
GO
```

	DonorFrom	studentsFrom	UniversitiesIn
1	Canada	India,Italy,Spain,USA	United Kingdom,USA,Japan,USA
2	France	United Kingdom	USA
3	Germany	Mexico	Switzerland
4	Italy	Germany,Italy,Russia	USA,USA,USA
5	Mexico	USA	USA
6	Russia	Czech Republic,India,Switzerland	USA,Japan,Japan
7	Switzerland	France,France,USA	Switzerland,USA,USA
8	USA	USA,USA	United Kingdom,USA

### DonorStudentLocations and studentsFrom

studentsFrom ● Czech R... ● France,F... ● German... ● India,Ital... ● Mexico ● United ... ● USA ▶



# VIEWS

## GENDER WISE STUDENT COUNT IN UNIVERSITIES

```
CREATE View [dbo].[vw_GenderWiseStudentCountInUniversities_UseOfPivot] as
select * from (
select UniversityNamefrom, [Male] as Male , [Female] as Female ,
[Non-Binary] as 'Non-Binary'
from (
select s.studentID as StudentID, Gender ,
u.Name as UniversityNamefrom
from student as s
inner join StudentAcademicRecords r on s.StudentID = r.StudentID
inner join University u on u.UniversityId = r.UniversityID
group by u.Name , gender, s.StudentID
) sourceTable
pivot
(
count(StudentID) for Gender
in ([Male],[Female],[Non-Binary])
)pivottable
) as final
GO
```

	UniversityNamefrom	Male	Female	Non-Binary
1	Carnegie Mellon University	3	2	3
2	Columbia University	3	3	0
3	Cornell University	3	0	0
4	Harvard University	1	1	2
5	John Hopkins University	0	1	0
6	Kyoto University	0	1	0
7	Princeton University	2	2	0
8	Stanford University	1	2	0
9	Swiss Federal Institute of Technology	1	1	0
10	University of Oxford	0	2	0
11	University of Pennsylvania	0	2	0
12	University of Tokyo	2	1	0
13	Yale University	3	2	0



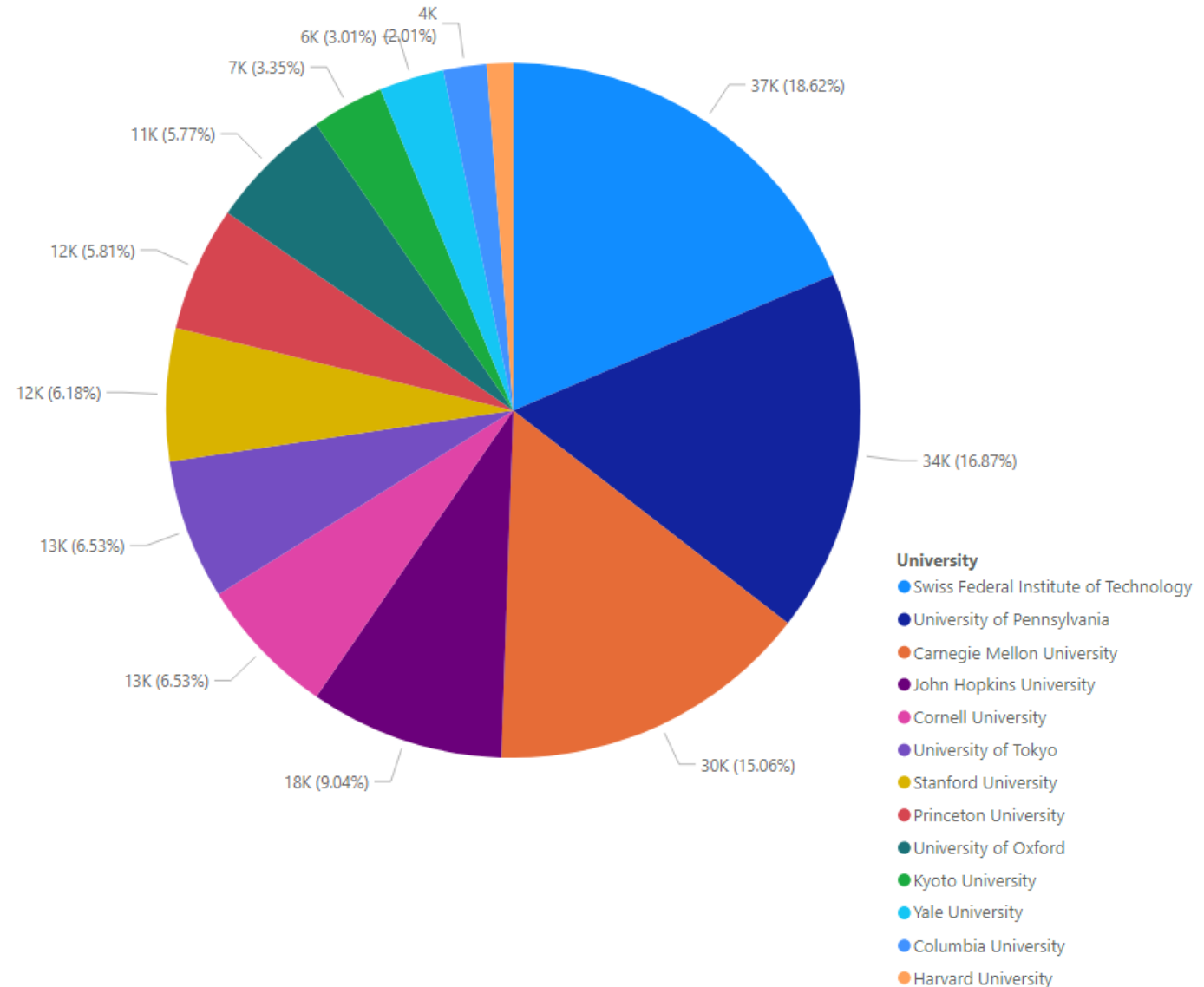
# VIEWS

## GRANTS RECEIVED BY UNIVERSITIES

```
create VIEW [dbo].[Vw_UniversityWiseDonations] AS
SELECT SUM(t.AMOUNT) AS TotalAmountDonated,
u.name AS University
FROM Transactions t inner join StudentAcademicRecords r
on t.StudentID = r.studentID
inner join University u
on r.UniversityID = u.UniversityID
GROUP BY u.name
```

	TotalAmountReceived	University
1	30000	Carnegie Mellon University
2	4000	Columbia University
3	13000	Cornell University
4	2440	Harvard University
5	18000	John Hopkins University
6	6675	Kyoto University
7	11580	Princeton University
8	12300	Stanford University
9	37088	Swiss Federal Institute of Technology
10	11490	University of Oxford
11	33600	University of Pennsylvania
12	13000	University of Tokyo
13	6000	Yale University

UniversityWiseDonations



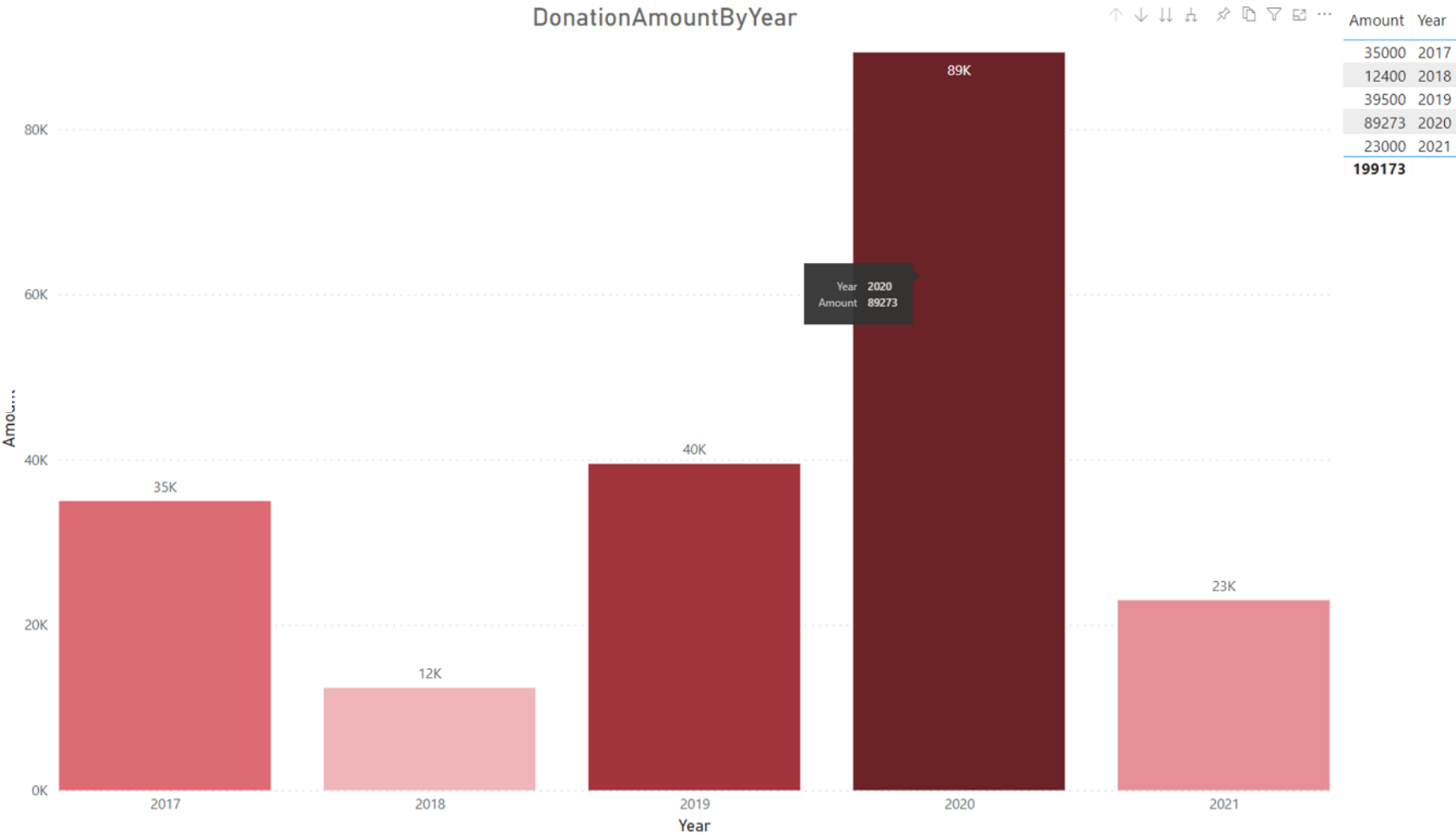
# VIEWS

## YEAR WISE GRANTS

```
CREATE VIEW YearlyFunds AS
SELECT yearlyData.Amount, yearlyData.[Year]
FROM (SELECT SUM(Amount) AS Amount,
      YEAR(DonatedOn) AS [Year]
      FROM Transactions
      GROUP BY YEAR(DonatedOn)
      ) as yearlyData
;
```

Go

	Amount	Year
1	35000	2017
2	12400	2018
3	39500	2019
4	89273	2020
5	23000	2021



# VIEWS

## DONOR RANKING

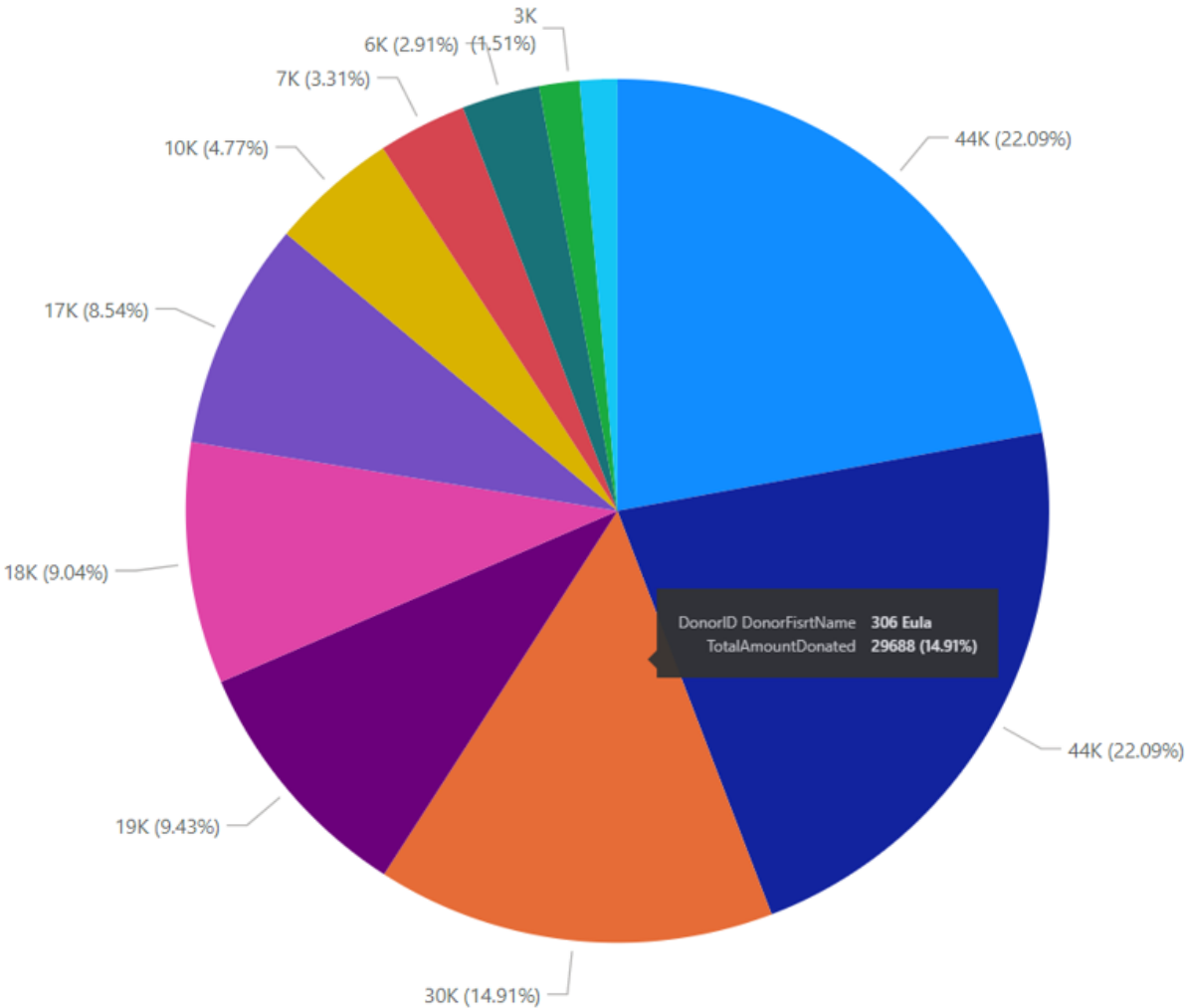
```
Create View vw_RankDonors as
select * from
(
select t.donorID,
(d.DonorFisrtName + ' ' + d.DonorLastName) as Donor,
sum(t.Amount) TotalGrants
, rank() over(order by sum(t.Amount) desc ) AwardedAS
from Transactions t inner join
donor d on t.DonorID = d.DonorID
group by t.donorID, (d.DonorFisrtName + ' ' + d.DonorLastName)
) as details
go
```

	donorID	Donor	TotalGrants	AwardedAS
1	300	Caroline Phelps	44005	1
2	308	Brian Morgan	44000	2
3	306	Eula Lee	29688	3
4	307	Winston Castro	18780	4
5	309	Sandoval Ernesto	18000	5
6	310	Archie Hala	17000	6
7	301	Gray Santiago	9500	7
8	302	Marcia Erickson	6600	8
9	303	Brad Hudson	5800	9
10	305	Terrel Graves	3000	10
11	304	Sabrina Fisher	2800	11

# REPORT

TotalAmountDonated by DonorID and DonorFisrtName

↑ ↓ ↕ ↗ ↘ ↙ ↚ ...



## DonorID, DonorFisrtName

- 300 Caroline
- 308 Brian
- 306 Eula
- 307 Winston
- 309 Sandoval
- 310 Archie
- 301 Gray
- 302 Marcia
- 303 Brad
- 305 Terrel
- 304 Sabrina

# VIEWS

## COUNTRYWISE DONOR RANKING

```
CREATE View [dbo].[vw_RankDonorsCountryWise] as
select * , (case when ran = 1 then '1st in entire ' + DonorLivesIn when ran= 2 then '2nd in entire ' + DonorLivesIn when ran=3 then '3rd in entire ' + DonorLivesIn end) as AwardedAs from
(
select t.DonorID,
(d.DonorFisrtName + ' ' + d.DonorLastName) as DonorName,
sum(t.Amount) TotalGrants, ad.Country as DonorLivesIn
, rank() over( Partition by ad.Country order by sum(t.Amount) desc ) ran
from Transactions t inner join
donor d on t.DonorID = d.DonorID
inner join [UserAddress] ad on d.userID = ad.UserID
group by t.donorID, (d.DonorFisrtName + ' ' + d.DonorLastName) ,ad.Country --, (s.DonorFisrtName + ' ' + s.DonorLastName)
) as details where ran < 4
GO
```

	DonorID	DonorName	TotalGrants	DonorLivesIn	ran	AwardedAs
1	300	Caroline Phelps	44005	Canada	1	1st in entire Canada
2	301	Gray Santiago	9500	Canada	2	2nd in entire Canada
3	309	Sandoval Ernesto	18000	France	1	1st in entire France
4	310	Archie Hala	17000	Gemany	1	1st in entire Gemany
5	308	Brian Morgan	44000	Italy	1	1st in entire Italy
6	305	Terrel Graves	3000	Mexico	1	1st in entire Mexico
7	307	Winston Castro	18780	Russia	1	1st in entire Russia
8	306	Eula Lee	29688	Switzerland	1	1st in entire Switzerland
9	302	Marcia Erickson	6600	USA	1	1st in entire USA
10	303	Brad Hudson	5800	USA	2	2nd in entire USA
11	304	Sabrina Fisher	2800	USA	3	3rd in entire USA

# VIEWS

## DONOR\_STUDNETS\_AND\_UNIVERSITY

```
CREATE view Donors_StudentsNUniversities
As
with temp(Donorname,StudentName,universityName) As
(
select d.DonorFisrtName + ' ' + d.DonorLastName as Donorname , s.StudentFisrtName as StudentName
, u.name as universityName
from donor d
inner join transactions t on d.DonorID = t.DonorID
inner join Student s on t.StudentID = s.StudentID
inner join StudentAcademicRecords r on s.StudentID = r.StudentID
inner join university u on r.UniversityID = u.UniversityID
group by d.DonorFisrtName + ' ' + d.DonorLastName , s.StudentFisrtName , u.name
--order by d.DonorFisrtName
)
```

```
select distinct temp.Donorname , isNull(STRING_AGG(temp.StudentName,','),0) as Students
,isNull(STRING_AGG(temp.universityName,','),0) as Universities
from temp
group by temp.Donorname
;
```

go

	Donorname	Students	Universities
1	Archie Hala	Garret	Swiss Federal Institute of Technology
2	Brad Hudson	testStudent3	Princeton University
3	Brian Morgan	Gorgia,Jimmy,Sushmitha	University of Pennsylvania,Cornell University,Yale University
4	Caroline Phelps	Crystal,Disha,Mercedes,teststudent1	Kyoto University,University of Oxford,Harvard University,Carnegie Mellon University
5	Eula Lee	Barry,Delia,Gaurav	Columbia University,University of Pennsylvania,Swiss Federal Institute of Technology
6	Gray Santiago	testStudent2	Stanford University
7	Marcia Erickson	Sandhya	University of Oxford
8	Sabrina Fisher	testuser3	Stanford University
9	Sandoval Ernesto	Candace	John Hopkins University
10	Terrel Graves	Walter	Yale University
11	Winston Castro	Jassi,Margie,Margot	University of Tokyo,University of Tokyo,Princeton University



# REPORT

DonorFundingsToUniversities

