Veränderte Tabellen:

create table person(**pnr\_pratljacic** integer primary key, pname varchar2(20));

create table country (**country\_id\_pratljacic** integer primary key, country\_name varchar2(20));

create table calls(**call\_nr\_pratljacic** integer, pnr integer references person(pnr\_pratljacic),

country\_id integer references country (country\_id\_pratljacic),

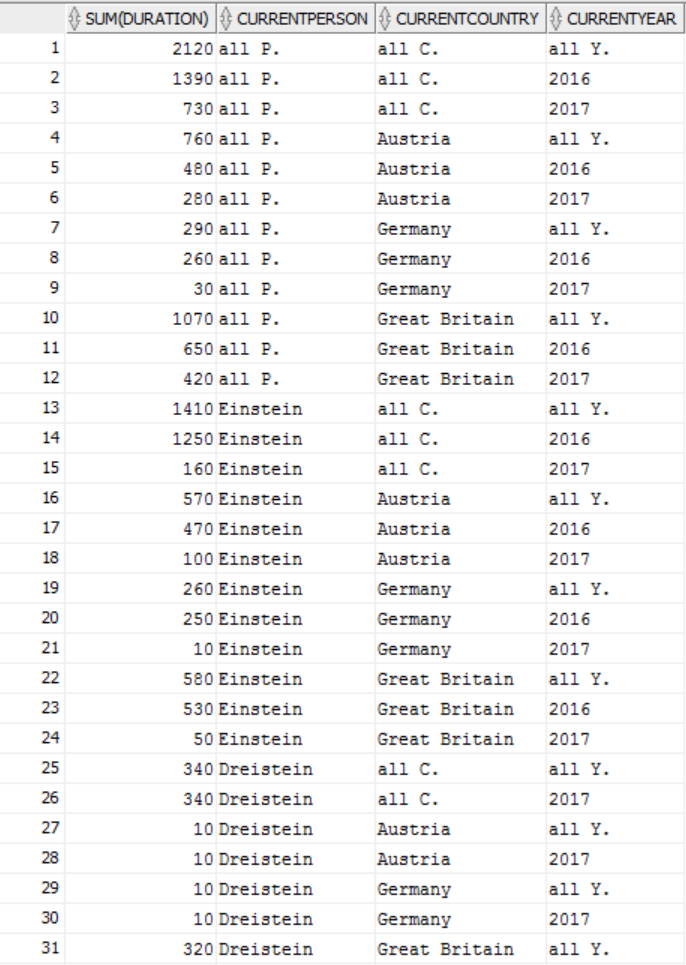
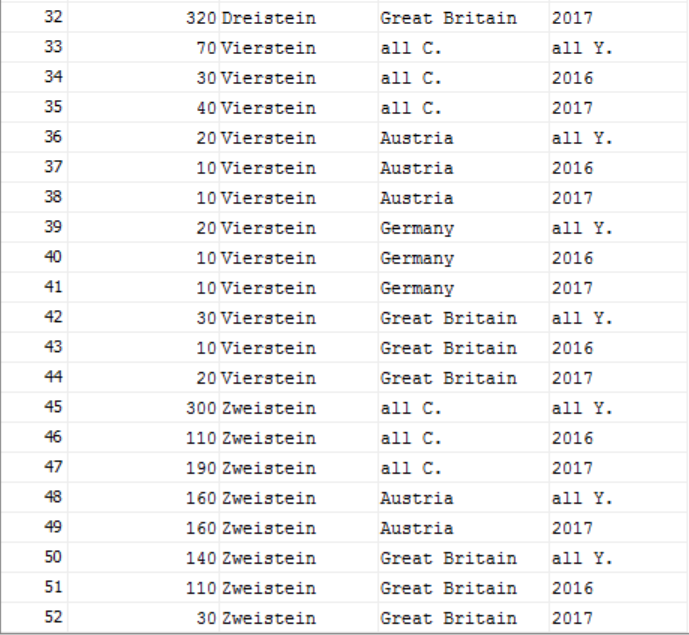
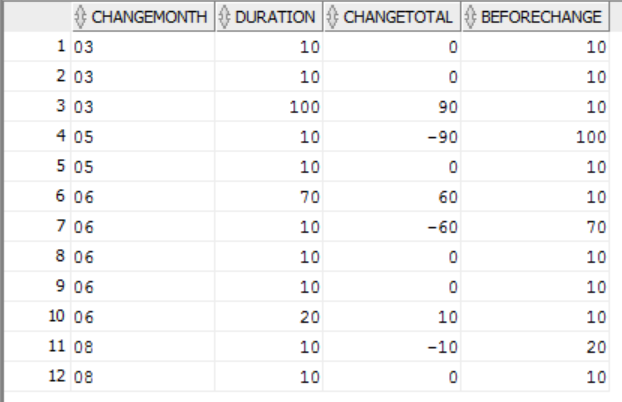
duration integer,

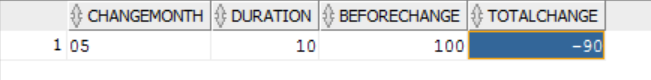
call\_date date);

Select Kommandos:

1. select sum(duration), decode(grouping\_id(pname),1,'all P.', pname) as currentperson, decode(grouping\_id(country\_name),1,'all C.', country\_name) as currentcountry, decode(grouping\_id(to\_char(call\_date, 'YYYY')),1,'all Y.', to\_char(call\_date, 'YYYY')) as currentyear from calls c join person p on c.pnr = p.pnr\_pratljacic join country cntry on c.country\_id = cntry.country\_id\_pratljacic group by cube(pname, country\_name, to\_char(call\_date, 'YYYY'));
2. select to\_char(call\_date, 'MM') as changemonth, duration, duration - first\_value(duration) over (order by calls.call\_date rows between 1 preceding and 0 following) as changetotal, first\_value(duration) over (order by calls.call\_date rows between 1 preceding and 0 following) beforechange from calls where country\_id = (select country\_id\_pratljacic from country where country\_name = 'Austria') AND to\_char(call\_date, 'yyyy') = 2017;
3. create view minchangeview as select to\_char(call\_date, 'MM') as changemonth, duration, first\_value(duration) over (order by calls.call\_date rows between 1 preceding AND 0 following) as beforechange, duration - first\_value(duration) over (order by calls.call\_date rows between 1 preceding and 0 following) as totalchange from calls where country\_id = (select country\_id\_pratljacic from country where country\_name = 'Austria') AND to\_char(call\_date, 'YYYY') = 2017;  
     
   select \* from minchangeview where totalchange = (select min(totalchange) from minchangeview);  
     
   drop view minchangeview;
4. create view rankview as select dense\_rank() over (order by duration desc) as currentrank, pname, country\_name, duration from calls c join country cntry on c.country\_id = cntry.country\_id\_pratljacic join person p on p.pnr\_pratljacic = c.pnr group by country\_name, pname, duration order by country\_name, currentrank;  
     
   select \* from rankview where currentrank < 3;  
     
   drop view rankview;

Ergebnisse:

1.   
   
2. 



1. 