```
/*Importing All years file*/
proc import datafile = 'C:/Users/rishabh.pandey/Desktop/Case Study/Case Study
2/Case_Study_2_2015.csv'
out=year_2015 dbms=CSV;
run;

proc import datafile = 'C:/Users/rishabh.pandey/Desktop/Case Study/Case Study
2/Case_Study_2_2016.csv'
out=year_2016 dbms=CSV;
run;

proc import datafile = 'C:/Users/rishabh.pandey/Desktop/Case Study/Case Study
2/Case_Study_2_2017.csv'
out=year_2017 dbms=CSV;
run;

proc import datafile = 'C:/Users/rishabh.pandey/Desktop/Case Study/Case Study
2/Case_Study_2_2018.csv'
out=year_2018 dbms=CSV;
run;

proc import datafile = 'C:/Users/rishabh.pandey/Desktop/Case Study/Case Study
2/Case_Study_2_2019.csv'
out=year_2019 dbms=CSV;
run;

/*Importing RTO mapping*/
proc import datafile = 'C:/Users/rishabh.pandey/Desktop/Case Study/Case Study 2/Case_Study_2_RTO.csv'
out=RTO_info dbms=CSV;
run;

/*Appending all years file*/
data year_base_pre;
set year_2015 year_2016 year_2017 year_2018 year_2019;
run;

/*Removing unwanted or personal information variables*/
data year_base_pre (drop = mobile_num TxnID);
set year_base_pre;
run;

/*Extract RTO id from car number*/
data year_base_pre;
set year_base_pre;
rto_id = substr(Car_number,4,1);
run;

/*Checking feature of data*/
proc contents data = year_base_pre varnum;
run;

/*Checking feature of RTO*/
proc contents data = RTO_info varnum;
run;

/* Due to data miss match of rto in both data set, we will change the data type in one dataset*/
data year_base_pre;
set year_base_pre;
rto_id_new = input(rto_id,2.);
run;

/*Checking feature of year_base_pre*/
proc contents data = year_base_pre varnum;
run;
```

```
/*Drop rto_id and rename rto_id_new to rto_id*/
data year_base_pre (drop = rto_id);
set year_base_pre;
run;

data year_base_pre (rename = rto_id_new=rto_id);
set year_base_pre;
run;

/*Checking feature of year_base_pre*/
proc contents data = RTO_info varnum;
run;

/*Checking feature of rto*/
proc contents data = year_base_pre varnum;
run;


/*Soring file for merge*/
proc sort data = year_base_pre;
by rto_id;
run;

/*Soring file for merge*/
proc sort data = RTO_info;
by rto_id;
run;

proc print data = RTO_info;
run;

/*Mergeing year base with rto information base*/
data base;
merge year_base_pre(in=a) RTO_info(in=b);
by rto_id;
if a;
run;


/*Checking data*/
proc print data = base (obs=10);
run;

/*Calculation of Total premium of the policy*/
data base;
set base;
total_premium = (Base_Premium-No_Claim_bonus_discount + road_side_assistence_addon + Tyre_addon +
Electronic_addon + thirt_party_liablity_premium);
run;

/*Checking data*/
proc print data = base (obs=20);
run;

/*Calculate age of the car*/
data base;
set base;
car_age = intck('year',registration_date,'31jul2020'd);
run;

/* Calculate target for the next year for manufacturer cross RTO*/
proc sql;
select
        Manufaturer
```

```
        ,rto_name
        ,avg(total_premium)*1.10
from base
where year in (2017,2018,2019)
group by Manufaturer,rto_name;
quit;

/*Calculate proportion of new and renewal policy in the base across manufacturer for the latest
year*/
proc sql;
select Manufaturer
        ,(sum(case when Type='New' then 1 else 0 end)/count(policy_num))*100 as new_percent
        ,(sum(case when Type='Renewal' then 1 else 0 end)/count(policy_num))*100 as renewl_percent
from base
where year = 2019
group by Manufaturer;
quit;

/* Calculate average car age of customer from all years across Manufaturer and rto*/
proc sql;
select
        Manufaturer
        ,rto_name
        ,avg(car_age)
from base
group by Manufaturer,rto_name;
quit;
```