```sas
Options macrogen symbolgen mlogic mprint mfile;


/* Add the following 4 macro variables (inline or as prompts) and run

start_index - first month to process from list below--e.g 19
end_index - last month to process from list below--e.g. 19

ldap_user - EIW user login
ldap_pwd - EIW password

*/


%let month1 = 201312;
%let month2 = 201401;
%let month3 = 201402;
%let month4 = 201403;
%let month5 = 201404;
%let month6 = 201405;
%let month7 = 201406;
%let month8 = 201407;
%let month9 = 201408;
%let month10 = 201409;
%let month11 = 201410;
%let month12 = 201411;
%let month13 = 201412;
%let month14 = 201501;
%let month15 = 201502;
%let month16 = 201503;
%let month17 = 201504;
%let month18 = 201505;
%let month19 = 201506;
%let month20 = 201507;
%let month21 = 201508;
%let month22 = 201509;
%let month23 = 201510;
%let month24 = 201511;
%let month25 = 201512;



/* Grab millennial accounts from WBR */

%macro wbr_mill;
%do i = &start_index %to &end_index;

%let year = %substr(&&month&i,1,4);
%let mth = %substr(&&month&i,5,2);
%let prd_dt = %str(%')&year.-&mth.-01%str(%');

proc sql noerrorstop;
```

```sql
connect to teradata(server="eiwp.wellsfargo.com" user="&ldap_user@LDAP"
password="&ldap_pwd" connection=global mode=teradata);

execute(
create volatile table wbr_accts as (
select
a.wae_acct_ky,
c.ecn,
a.mdss_hh_id,
a.wae_prd_dt,
a.acct_stat_cd,
(case
    when c.client_age is null then -1
    when (extract(year from a.wae_prd_dt) - c.client_age) between 1981 and
1997 then 1
    else 0
end) as millennial_flag,
a.wae_wlth_ky,
a.wae_ad_ky,
a.wae_rtr_ky,
case when a.wae_acct_cat_ky=1 then a.wae_brk_ky else 0 end as wae_brk_ky,
wae_wfa_ky,
case when a.wae_acct_cat_ky=2 then 1 else 0 end as wbr_cc,
wae_wbr_ky
from wae_d_core_v2.wae_acct_hist as a

inner join wae_d_core_v2.wae_client_x_acct_hist b
on a.wae_acct_ky=b.wae_acct_ky
and b.wae_prd_dt = &prd_dt
and b.rpt_client_rol_cd = 'PO'
and b.wae_prd_dt < b.expir_dt

inner join wae_d_core_v2.wae_client_hist c
on b.wae_client_ky=c.wae_client_ky
and c.wae_prd_dt = &prd_dt

where a.wae_prd_dt = &prd_dt
and a.acct_stat_cd <> 'CLOSED'
and acct_cnt_ind = 1
and a.wae_wbr_ky = 1
/*and (extract(year from a.wae_prd_dt) - c.client_age) between 1981 and
1997 */
) with data primary index (wae_acct_ky, wae_prd_dt) on commit preserve rows
) by teradata
;


execute(
CREATE VOLATILE TABLE WBR_HH AS (
SELECT
h.mdss_hh_id
,h.wae_prd_dt
```

```sql
      ,w.wae_acct_ky
      ,w.ecn
      ,w.acct_stat_cd
      ,millennial_flag
      ,MAX(w.wae_wlth_ky) AS wlth_flg
      ,MAX(CASE WHEN w.wae_brk_ky > 0 THEN 1 ELSE 0 END) AS brk_flg
      ,MAX(CASE WHEN w.wae_rtr_ky > 0 THEN 1 ELSE 0 END) AS rtr_flg
      ,MAX(w.wae_wfa_ky) AS wfa_flg
      ,MAX(CASE WHEN w.wae_ad_ky = 1 OR COALESCE (h.hh_ad_flg,'N') = 'Y'  THEN
      1 ELSE 0 END) AS ad_flg
      ,MAX(w.wbr_cc) AS wbr_cc_flg

      FROM  WAE_D_CORE_V2.WAE_HH_HIST AS h

      LEFT JOIN WBR_ACCTS AS w
      ON h.mdss_hh_id = w.mdss_hh_id
      AND h.wae_prd_dt = w.wae_prd_dt

      WHERE hh_cat IS NOT NULL
      AND h.wae_prd_dt = &prd_dt
      AND (w.mdss_hh_id IS NOT NULL OR COALESCE (h.hh_ad_flg,'N') = 'Y')

      GROUP BY 1,2,3,4,5,6
      ) WITH DATA PRIMARY INDEX (mdss_hh_id, wae_prd_dt) ON COMMIT PRESERVE ROWS
      ) by teradata;


      execute (CREATE VOLATILE TABLE WBR_MDSS_CUBE AS (
      select
      &&month&i as asof_yyyymm,
      a.millennial_flag,
      WAE_PROD_CLASS_NM,
      WAE_PROD_CAT_NM,
      WAE_PROD_SUB_CAT_NM,
      a.MDSS_HH_ID,
      CAST(B.WAE_ACCT_KY AS INTEGER) AS WAE_ACCT_KY,
      a.ecn,
      A.ACCT_STAT_CD,
      CASE WHEN (ACCT_OPN_DT - day_of_month + 1)  = b.WAE_PRD_DT  THEN 'Y' ELSE
      'N' END AS NEW_ACCT_FLAG
      from (SEL * FROM wbr_hh  WHERE WAE_PRD_DT = &prd_dt ) a

      left  join WAE_D_CORE_V2.WAE_ACCT_HIST b
      on a.wae_acct_ky = b.wae_acct_ky
      and b.WAE_PRD_DT = A.WAE_PRD_DT

      left  join wae_d_core_v2.WAE_PROD_HIST  c
      on b.wae_prod_ky = c.wae_prod_ky
      and  c.WAE_PRD_DT = b.WAE_PRD_DT

      inner join sys_calendar.calendar k
      on k.calendar_date = ACCT_OPN_DT
```

```sas
    GROUP BY 1,2,3,4,5,6,7,8,9,10
) with data primary index (ASOF_YYYYMM, MDSS_HH_ID, WAE_ACCT_KY) on commit
preserve rows
) by teradata;



create table wbr_hh_cube_temp as
select * from connection to teradata
(
select
DISTINCT
ASOF_YYYYMM,
MDSS_HH_ID,
WAE_PROD_CLASS_NM,
WAE_PROD_CAT_NM,
WAE_PROD_SUB_CAT_NM,
millennial_flag,

SUM(CASE WHEN ACCT_STAT_CD = 'OPEN' THEN 1 ELSE 0 END) AS ACCTS,
sum(case when  NEW_ACCT_FLAG = 'Y' then 1 else 0 end) as NEW_ACCTS,

SUM(CASE WHEN ACCT_STAT_CD = 'CLOSED THIS MONTH' THEN 1 ELSE 0 END) AS
LOST_ACCTS

from WBR_MDSS_CUBE

GROUP BY 1,2,3,4,5,6
);


disconnect from teradata;
quit;

/* append processed month to overall cube */

data wbr_hh_cube;
     set %if &i ne &start_index %then wbr_hh_cube;
           wbr_hh_cube_temp;
run;

/* No month 13 for WIM.  Simply duplicate month12 */

%if &mth = 12 %then %do;
data wbr_hh_cube_temp;
     set wbr_hh_cube_temp(drop=ASOF_YYYYMM);
       ASOF_YYYYMM = &year.13;
run;

data wbr_hh_cube;
     set wbr_hh_cube wbr_hh_cube_temp;
```

```sas
run;
%end;

/* delete temporary dataset */

proc datasets lib=work nolist;
delete wbr_hh_cube_temp ;
quit;
run;

%end; /* do */

%mend; /* wbr_mill */


%macro final;

/* original table creation
execute (
CREATE SET TABLE bmgu_bmgeth.wbr_hh_cube_mill , NO FALLBACK , NO BEFORE
JOURNAL , NO AFTER JOURNAL , CHECKSUM = DEFAULT , DEFAULT MERGEBLOCKRATIO
( ASOF_YYYYMM INT ,
MDSS_HH_ID INT ,
MILLENNIAL_FLAG INT ,
WAE_PROD_CLASS_NM VARCHAR ( 30 ) CHARACTER SET LATIN NOT CS ,
WAE_PROD_CAT_NM VARCHAR ( 40 ) CHARACTER SET LATIN NOT CS ,
WAE_PROD_SUB_CAT_NM VARCHAR ( 50 ) CHARACTER SET LATIN NOT CS ,
ACCTS INT ,
NEW_ACCTS INT ,
LOST_ACCTS INT ) PRIMARY INDEX ( ASOF_YYYYMM , MDSS_HH_ID, MILLENNIAL_FLAG
)
) by teradata;
*/

/* Fastload into BMG temp area */

libname bmgtemp teradata user="&ldap_user@LDAP" password="&ldap_pwd"
tdpid=bmg.wellsfargo.com schema=bmgu_temp;

%put timestamp = %sysfunc(time(),time8.0);

data bmgtemp.wbr_hh_cube_mill(fastload=yes sessions=4
   dbcreate_table_opts = 'primary index(ASOF_YYYYMM , MDSS_HH_ID)');
   set wbr_hh_cube;
run;

%put timestamp = %sysfunc(time(),time8.0);

proc sql noerrorstop;
connect to teradata(server="bmg.wellsfargo.com" user="&ldap_user@LDAP"
password="&ldap_pwd" connection=global mode=teradata);
```

```sas
/* Now insert into WBR Millennial cube */


execute(
insert into bmgu_bmgeth.wbr_hh_cube_mill
(
ASOF_YYYYMM ,
MDSS_HH_ID ,
MILLENNIAL_FLAG ,
WAE_PROD_CLASS_NM  ,
WAE_PROD_CAT_NM  ,
WAE_PROD_SUB_CAT_NM  ,
ACCTS ,
NEW_ACCTS ,
LOST_ACCTS
)
select
ASOF_YYYYMM ,
MDSS_HH_ID ,
MILLENNIAL_FLAG ,
WAE_PROD_CLASS_NM  ,
WAE_PROD_CAT_NM  ,
WAE_PROD_SUB_CAT_NM  ,
ACCTS ,
NEW_ACCTS ,
LOST_ACCTS
from bmgu_temp.wbr_hh_cube_mill
) by teradata;

execute(drop table bmgu_temp.wbr_hh_cube_mill) by teradata;

disconnect from teradata;
quit;

%mend; /* final */



%wbr_mill;
%final;
```