```
/**solution Q1***/
DATA sub_accounts_1;
  set WORK.creditacc_files;
  if  (45 LE age LE 55) or
        (income >40000);
RUN;

/**solution Q2***/
DATA sub_accounts_2;
  set WORK.creditacc_files;
  where (age between 45 and 55) or
        (income <40000 and income NE .);
RUN;

/**solution Q3***/
DATA sub_accounts_3;
  set WORK.creditacc_files;
  if _n_<31;
  if income=. then income=0;
RUN;

/**solution Q4***/
DATA sub_accounts_4;
  set WORK.creditacc_files;
  if credit_limit>0 then utilization=round(100*revolve_bal/credit_limit,0.1);
  if utilization>40 or credit_limit LE 0;   /**cannot use where**/
  array miss[2] age income;
  do j=1 to 2;
    if miss[j]=. then miss[j]=0;
  end;
  keep id age income revolve_bal credit_limit utilization;
RUN;

/**solution Q5***/
 data WORK.Fin_account_1;
    set WORK.Fin_account;
    if Credit_Lim1012=. or Credit_Lim1012=0 then utilization=999;
    else utilization=round(100*Tot_New_Bal1012/Credit_Lim1012,1);
 run;



/**solution Q6***/
 data normal_fin_acc;
  set WORK.Fin_account_1;
```

```
 if 0=<utilization<=100;
run;


/**solution Q7***/
data normal_fin_acc;
 set normal_fin_acc;
 Select;
    When(70 LE utilization LE 100)  ut_level='HIGH';
    When(35 LE utilization LE 69)  ut_level ='MEDIUM';
    Otherwise  ut_level ='LOW';
 End;
keep ACCT_KEY Tot_New_Bal1012 Credit_Lim1012 utilization ut_level Purchases;
run;


/**solution Q8***/
data acc_ind;
   set normal_fin_acc;
   where Purchases>0;
   if Tot_New_Bal1012=. then bal_miss=1; else bal_miss=0;
   if Credit_Lim1012=. then limit_miss=1; else limit_miss=0;
   keep ACCT_KEY ut_level bal_miss limit_miss;
run;
```