```sas
/* Generated Code (IMPORT) */
/* Source File: diabetes_prediction_dataset.csv */
/* Source Path: /home/u61480633/PROJECT */
/* Code generated on: 3/16/24, 3:03 PM */

%web_drop_table(WORK.IMPORT);

FILENAME REFFILE '/home/u61480633/PROJECT/diabetes_prediction_dataset.csv';

PROC IMPORT DATAFILE=REFFILE DBMS=CSV OUT=WORK.IMPORT;
    GETNAMES=YES;
RUN;

%web_open_table(WORK.IMPORT);

/* Random Sampling */
proc surveyselect data=WORK.IMPORT out=WORK.IMPORT_SAMPLE method=srs
                /* Replace 5000 with your desired sample size */
                sampsize=5000;
run;

/* Check the sampled dataset */
proc contents data=WORK.IMPORT_SAMPLE;
run;

/* Exploratory Data Analysis */
proc freq data=WORK.IMPORT_SAMPLE;
    tables gender;
run;

/* Summary Statistics */
proc univariate data=WORK.IMPORT_SAMPLE;
    var age blood_glucose_level bmi HbA1c_level;
run;

/* Logistic Regression Analysis */
proc logistic data=WORK.IMPORT_SAMPLE plots=all;
    class gender;
    model diabetes(event="1") = age blood_glucose_level bmi HbA1c_level / lackfit;
    store out=estimates;
run;

/* Assess Model Fit */
proc logistic data=WORK.IMPORT_SAMPLE plots=all;
    class gender;
    model diabetes(event="1") = age blood_glucose_level bmi HbA1c_level / lackfit aggregate scale=pearson;
run;

/* Generalized Linear Modeling */
proc genmod data=WORK.IMPORT_SAMPLE DESCENDING;
    class gender;
    model diabetes(event="1") = age blood_glucose_level bmi HbA1c_level / dist=binomial link=logit;
run;
```