BCH ETL Project Problem

Objective

Write an original ETL code that combines files and identifies cases that have low blood pressure based on the logic below.

A successful project includes:

1) Original code file (Python)
2) Final report (excel or csv)

Steps

1) Identify cases during which blood pressure dropped below the norm for the age (see below) for 14 continuous minutes or longer.
   Assume that the PERSON_ID is the identifier for the patient, and SERVICE_DATE is the date of the surgery that they had. Surgeries don't span over 1 day. The Age is given for that patient, for the surgery date. The Blood pressure is only taken during the surgery duration.

If the child reached 44 months, systolic blood pressure is considered low at 55 mmHg and below. Before 44 months of age, 46 mmHg and below is considered low.

Example:
Demographic data:

PERSON_ID	*SERVICE_DATE*	*AGE_MONTHS*
1	*1/12/2016*	*40*

Blood Pressure data:

Row Number	*PERSON_ID*	*TIME*	*SYSTOLIC_BLOOD_PRESSURE*
1	*1*	*1/12/2016 07:05*	*32*
2	*1*	*1/12/2013 07:06*	*54*
3	*…*		

Since the patient is 40 months old at the time of the surgery, their threshold is 46 mmHg, hence, only row 1 would be considered low for 1 minute.

2) The final report should contain the Person ID, Service date, and duration (in minutes) of the period with low blood pressure.

Source Files

Demographics.csv
BloodPressure.csv

Additional considerations:

The blood pressure thresholds are not clinically correct, and are created for this problem only.