0,1,2,3,4 (a1) 5 6 7 8 9 (a2)

we set the age structure to be $S_j = [S_{0,j}, S_{1,j}, S_{2,j} \cdots S_{20,j}]$

Initially we get $S_0 = [865365, 1109604, \cdots]$ $S_{0,0} = 865365$ $S_{1,0} = 1109604$ ...

where $S_{i,j}$, i is the age range, j is the year.

the birth rate is $r_b = \frac{\text{live female birth}}{\text{female population}}$ in 2021

the death rate is $r_d = \frac{\text{female death}}{\text{female population}}$ in 2021

then $r_b = [r_{b0}, r_{b1}, r_{b2}, \cdots, r_{b20}]$

$r_d = [r_{d0}, r_{d1}, r_{d2}, \cdots, r_{d20}]$

then $S_{i+1,j+1} = S_{i,j} \cdot (1 - r_{dj})$, $i = 0, 1, 2, \cdots 24$

where $S_{1,j+1} = \sum_{k=0}^{20} S_{k,j} \cdot r_{bk}$

and j is from 0 to 99, we can get $S_j = [S_{0,j}, S_{1,j}, S_{2,j}, \cdots, S_{20,j}]$

for the famale size and age structure in the next 100 years.