

$$\begin{bmatrix} a1 & a2 & a3 & a4 & a5 & a6 \\ b1 & b2 & b3 & b4 & b5 & b6 \\ c1 & c2 & c3 & c4 & c5 & c6 \end{bmatrix} \begin{bmatrix} LS \\ MC \\ CG \\ RS \\ CPI \\ P \end{bmatrix} = \begin{bmatrix} \text{High} \\ \text{Medium} \\ \text{Low} \end{bmatrix}$$

## 2. Car insurance risk calculation (High, Medium, Low)

Car insurance risk depends on the following factors:

- a. The Car you drive (CAR): If the car you drive is regularly targeted by criminals then more risk.
- b. Demographics (D): Risk calculation model also depends on your gender, age, marital status.
- c. Regular Driver (RD): If there will be one or two drivers then less risk than multiple driver
- d. Driver Claim History(C): there will be more risk if the driver has recent claims

$$\begin{aligned} & a_1 \text{ CAR} + a_2 \text{ D} + a_3 \text{ RD} + a_4 \text{ C} = \text{High} \\ & b_1 \text{ CAR} + b_2 \text{ D} + b_3 \text{ RD} + b_4 \text{ C} = \text{Medium} \\ & c_1 \text{ CAR} + c_2 \text{ D} + c_3 \text{ RD} + c_4 \text{ C} = \text{Low} \end{aligned}$$

$$\begin{pmatrix} a1 & a2 & a3 & a4 \\ b1 & b2 & b3 & b4 \\ c1 & c2 & c3 & c4 \end{pmatrix} \begin{pmatrix} \text{CAR} \\ \text{D} \\ \text{RD} \\ \text{C} \end{pmatrix} = \begin{pmatrix} \text{High} \\ \text{Medium} \\ \text{Low} \end{pmatrix}$$