The command (sortrows)

This command is used to sort the information in tables of several columns according to the data in a certain column in an ascending order. When the column under consideration is sorted the rows are sorted accordingly so that each row (record) retains its information. The command is written as follows:

$$y = sortrows(\ table \ , \ column \ number \ )$$

The commands (flipud) and (fliplr)

These two commands are used to flip or invert the two dimensional matrix around horizontal axis (flipud) or vertical axis (fliplr). The upper and lower rows exchange their locations around a middle horizontal axis in (flipud) in a mirror–like manner. In the same way, the left and right columns also exchange their locations around a middle vertical axis in (fliplr). The commands formats are:

$$y = flipud(\ table \ ) \ , \ z = fliplr(\ table \ )$$

Ex. Write Matlab program to print the following table which represents information of eight students. Then sort the data in an ascending order once according to age and secondly according mark. Reverse the two sorting processes to be in an ascending order. Flip the final matrix around vertical axis.

Sol.

```
clear,clc
N=1:8;
Age=[19 22 25 20 22 21 18 23];
Mark=[75 70 68 72 78 80 74 60];
Table=[N' Age' Mark'];
disp('Original table')
disp(Table)
disp('Sorting according age')
Table_Age=sortrows(Table,2);
disp(Table_Age)
disp('Sorting according mark')
Table_mark=sortrows(Table,3);
disp(Table_mark)
T_m_D=flipud(Table_mark);
disp(T_m_D)
T_m_D2=fliplr(T_m_D);
disp(T_m_D2)
```

No.	age	mark
1	19	75
2	22	70
3	25	68
4	20	72
5	22	78
6	21	80
7	18	74
8	23	60