1. Write a Pandas program to split the following dataframe into groups, group by month and year based on order date and find the total purchase amount year wise, month wise.

Data:

ord\_no purch\_amt ord\_date customer\_id salesman\_id

0 70001 150.50 05-10-2012 3001 5002

1 70009 270.65 09-10-2012 3001 5005

2 70002 65.26 05-10-2012 3005 5001

3 70004 110.50 08-17-2012 3001 5003

4 70007 948.50 10-09-2012 3005 5002

5 70005 2400.60 07-27-2012 3001 5001

6 70008 5760.00 10-09-2012 3005 5001

7 70010 1983.43 10-10-2012 3001 5006

8 70003 2480.40 10-10-2012 3005 5003

9 70012 250.45 06-17-2012 3001 5002

10 70011 75.29 07-08-2012 3005 5007

11 70013 3045.60 04-25-2012 3005 5001

2 . Write a Pandas program to split the following dataframe into groups based on first column and set other column values into a list of values.

X Y Z

0 10 10 22

1 10 15 20

2 10 11 18

3 20 20 20

4 30 21 13

5 30 12 10

6 10 14 0

3 . Write a Pandas program to split the following dataframe into groups and count unique values of 'value' column.

id value

0 1 a

1 1 a

2 2 b

3 3 None

4 3 a

5 4 a

6 4 None

7 4 b