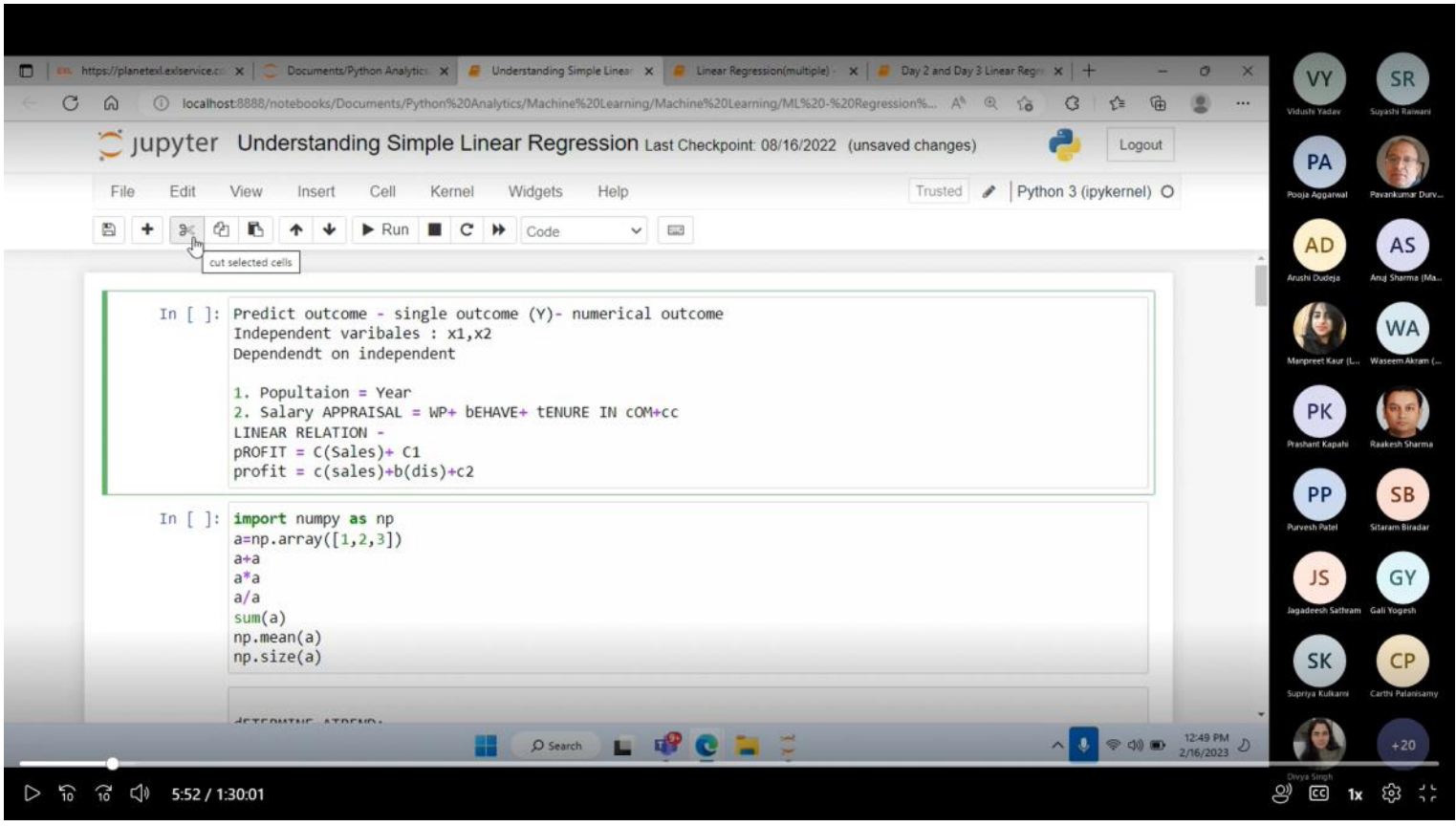
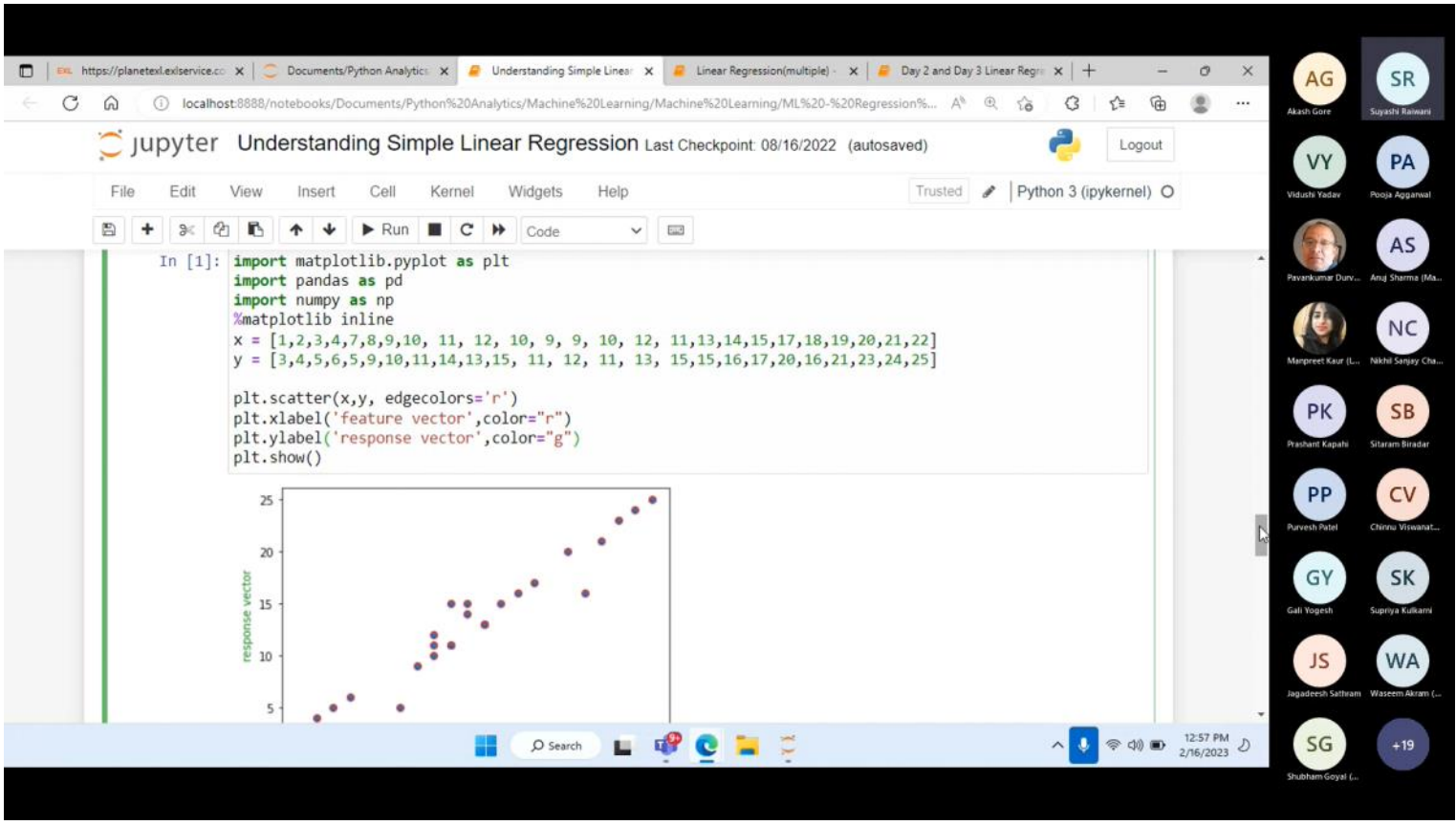

jupyter Understanding Simple Linear Regression Last Checkpoint: 08/16/2022 (unsaved changes)
Logout
File Edit View Insert Cell Kernel Widgets Help
Trusted
Python 3 (ipykernel)
Run
Code
cut selected cells
In [ ]:
Predict outcome - single outcome (Y)- numerical outcome
Independent varibales : x1,x2
Dependendt on independent
1. Popultaion = Year
2. Salary APPRAISAL = WP+ bEHAVE+ tENURE IN cOM+cc
LINEAR RELATION -
pROFIT = C(Sales)+ C1
profit = c(sales)+b(dis)+c2
In [ ]:
import numpy as np
a=np.array([1,2,3])
a+a
a*a
a/a
sum(a)
np.mean(a)
np.size(a)
5:52 / 1:30:01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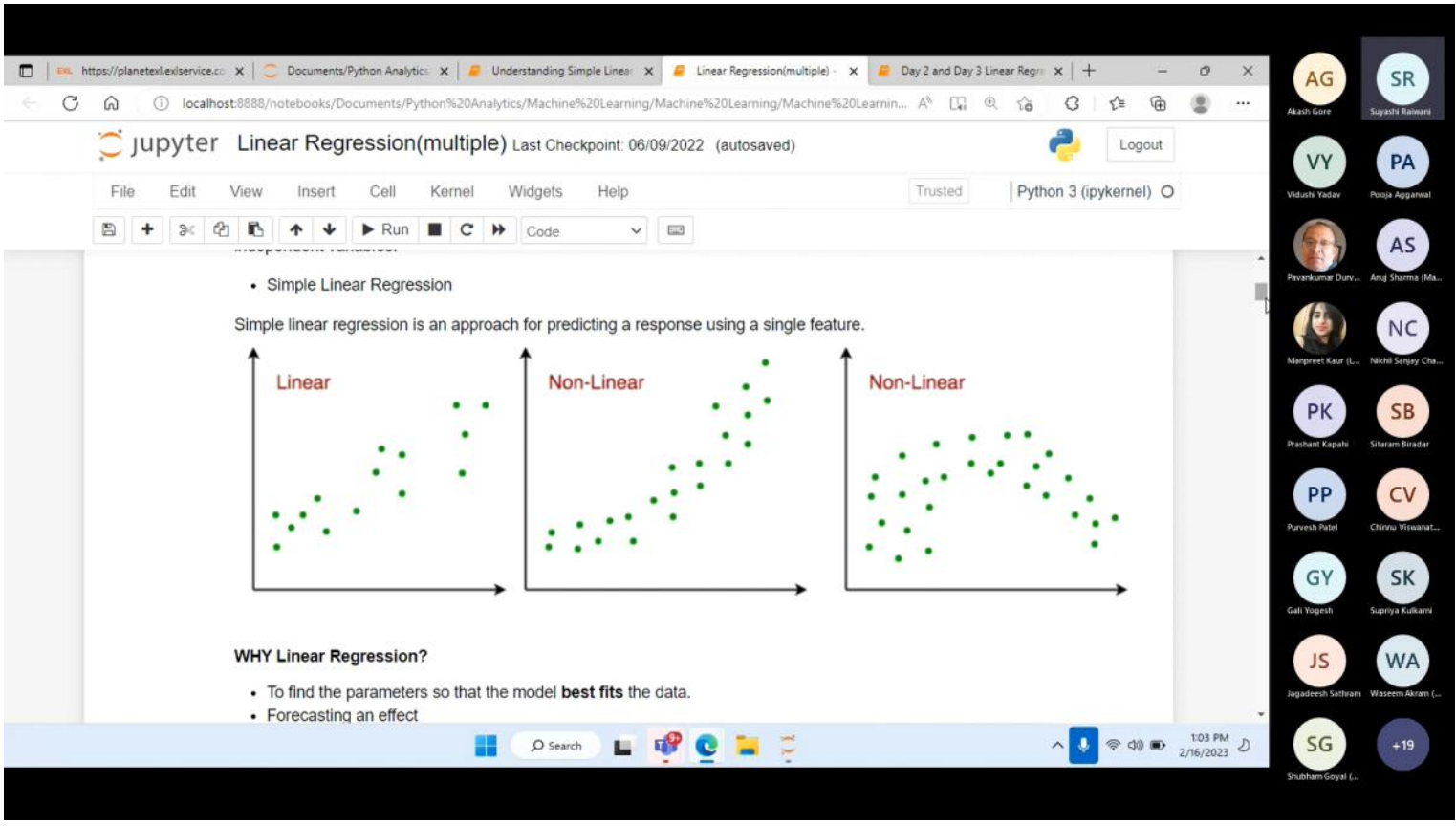
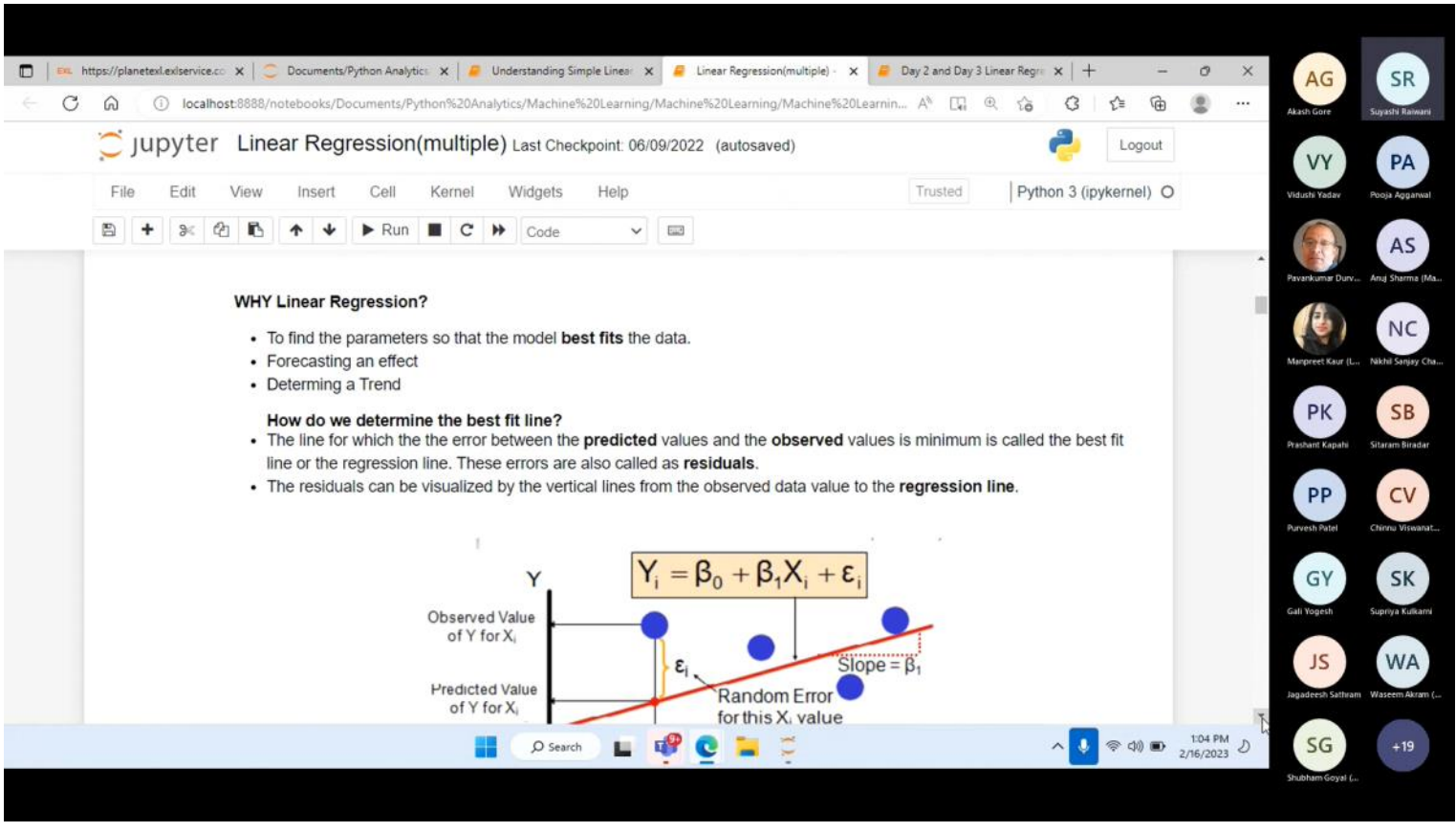
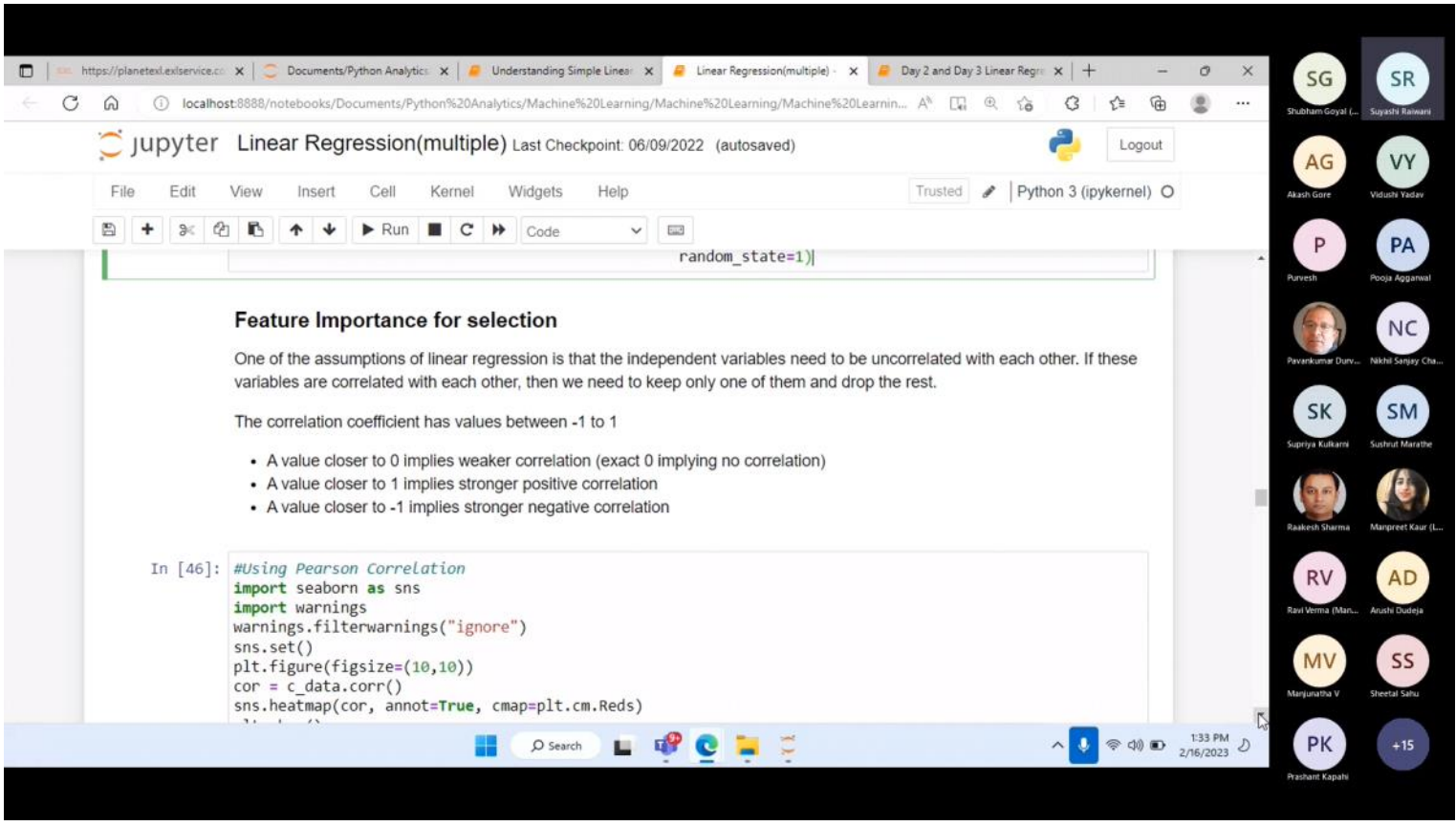
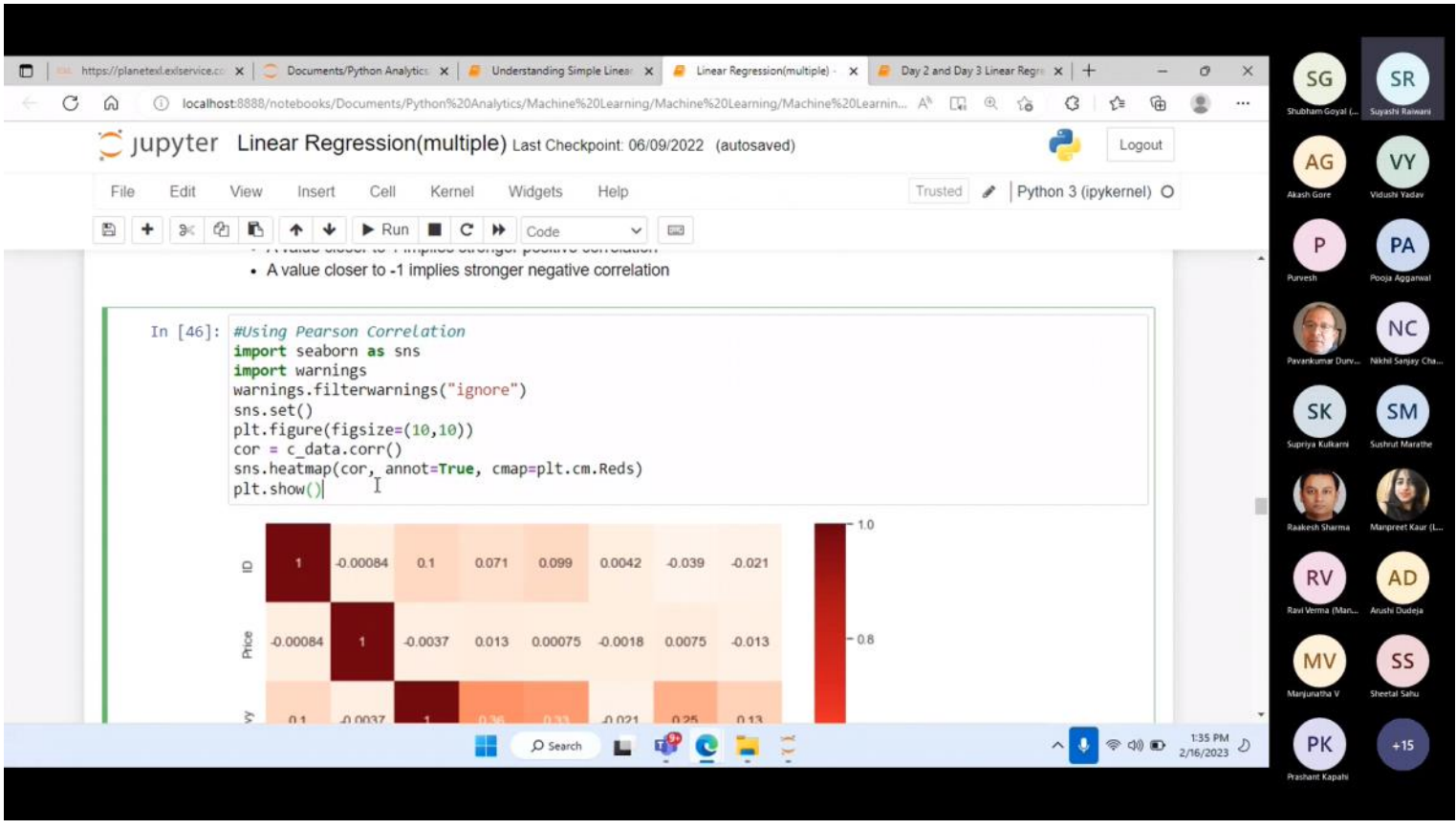
Python 3 (ipykernel)
Run
Code
In [1]:
import matplotlib.pyplot as plt
import pandas as pd
import numpy as np
%matplotlib inline
x = [1,2,3,4,7,8,9,10, 11, 12, 10, 9, 9, 10, 12, 11,13,14,15,17,18,19,20,21,22]
y = [3,4,5,6,5,9,10,11,14,13,15, 11, 12, 11, 13, 15,15,16,17,20,16,21,23,24,25]
plt.scatter(x,y, edgecolors='r')
plt.xlabel('feature vector',color="r")
plt.ylabel('response vector',color="g")
plt.show()
response vector
25
20
15
10
5

Draw a scatter ploy and check the curve to check if linear reg can be applied

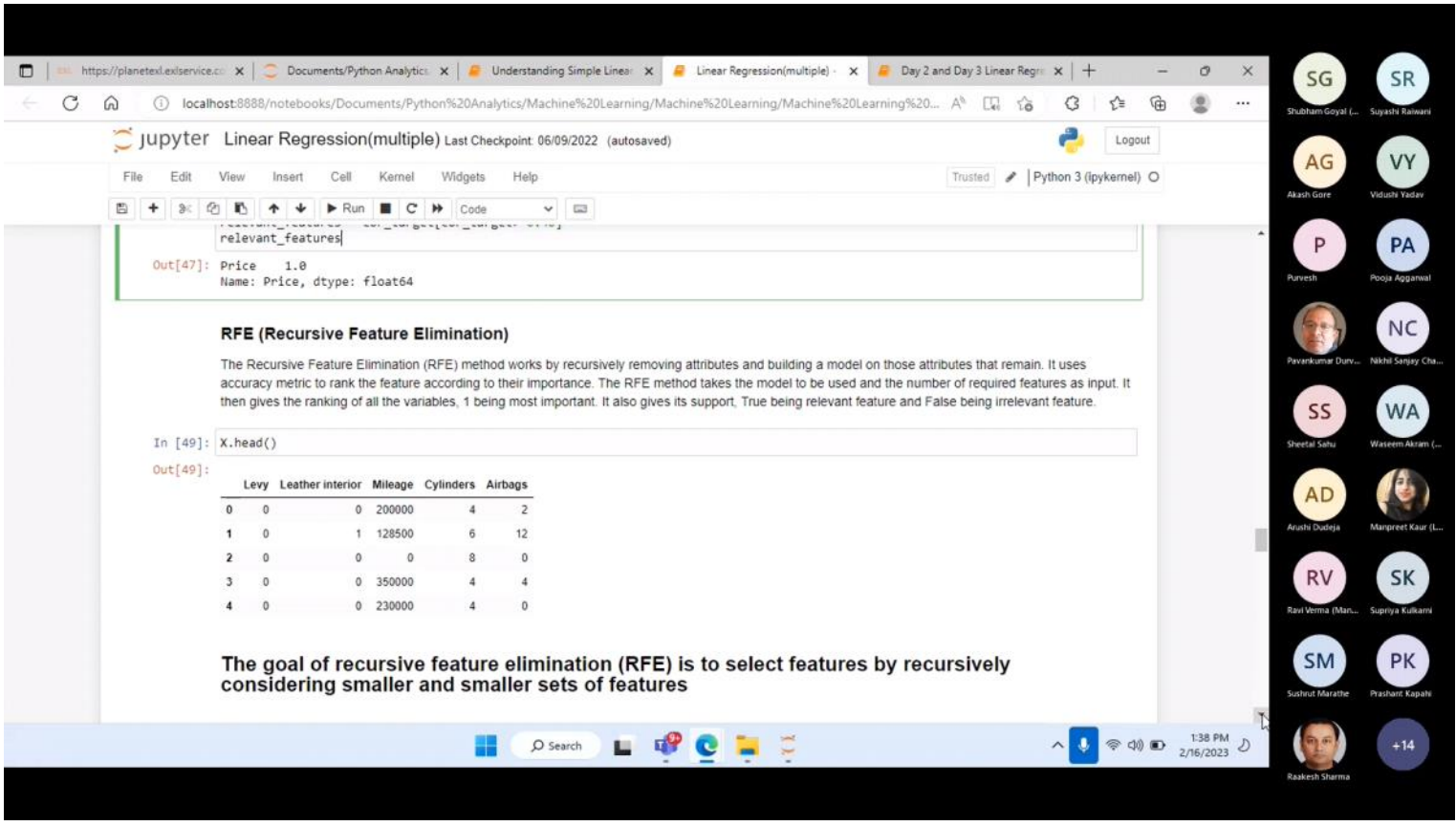








PLOT HEATMAP TO CHECK THE CORRELATION--NOT A GOOD ENOUGH METHOD


Linear Regression(multiple) Last Checkpoint: 06/09/2022 (autosaved)
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Python 3 (ipykernel)
relevant_features
Out[47]: Price 1.0
Name: Price, dtype: float64
RFE (Recursive Feature Elimination)
The Recursive Feature Elimination (RFE) method works by recursively removing attributes and building a model on those attributes that remain. It uses accuracy metric to rank the feature according to their importance. The RFE method takes the model to be used and the number of required features as input. It then gives the ranking of all the variables, 1 being most important. It also gives its support, True being relevant feature and False being irrelevant feature.
In [49]: X.head()
Out[49]:
Levy Leather interior Mileage Cylinders Airbags
0 0 0 200000 4 2
1 0 1 128500 6 12
2 0 0 0 8 0
3 0 0 350000 4 4
4 0 0 230000 4 0
The goal of recursive feature elimination (RFE) is to select features by recursively considering smaller and smaller sets of features